

# Analyzing the Impact of Human Capital on the Sustainable Growth & Development of Small and Medium Enterprises (SMEs): An Empirical Study

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**Vibha Mathur**

*Associate Professor, Department of Commerce  
Jesus and Mary College, University of Delhi, New Delhi, India*

**Saloni Arora**

*Assistant Professor, Department of Commerce  
Jesus and Mary College, University of Delhi, New Delhi, India*

## Abstract

*The Small and Medium Enterprises (SMEs) play a very significant and crucial role in the economic growth of both developed and developing countries. The importance of SMEs, in particular, was highlighted by the Addis Ababa Action Agenda on financing for development as the enterprises are major creators of jobs. They also focus on providing innovative ideas for sustainable development in the developing countries. These SMEs face highly complex and volatile conditions and therefore, have to strive for sustained, smooth and steady growth to remain competitive in the business world. These enterprises aim to create their market value and establish their brand name by adopting sustainable measures. The managers of SMEs are resorting to a blend of different types of capital like financial capital, natural capital, human capital, social capital and constructed capital. Human capital, an emerging concept has caught the attention of economists and industrialists all over the world in the recent past. Various enterprises have started ascertaining the cost of human capital in terms of the skills, knowledge, competitiveness and innovative ideas provided by the individuals. This helps the organization in deciding whether it is able to adapt to the ever changing environment and achieve its goal of sustainable growth and development. The aim of the study was to examine the impact of human capital on the sustainable growth & development of SMEs. A questionnaire based survey on various dimensions of human capital was considered to assess the impact of human capital on the sustainability of the SMEs in Delhi-NCR, India. The statistical tools like Reliability Analysis and Multiple Regression were applied to achieve the results of the study. The study conducted will be beneficial not only to researchers or academicians but also to policy makers.*

**Keywords:** Small and Medium Enterprises, Human Capital, Sustainable Development, Knowledge, Competitiveness.

## Introduction

The Business firms operate in a complex business environment full of challenges and threats. Small and Medium enterprises are more vulnerable to this challenging set up and it has been observed over a period of time that within the first five years of their operations a feasible number of small firms cease to exist. As a result of these firms terminating their business operations, a large number of employees lose their job and at the same time, the economic development of a country undergoes deterioration. The SME's contribute a large share in the economic growth of a nation and also in generating employment. Therefore, it becomes pertinent for the small and medium enterprises to adopt the principles of sustainability as their survival, to a large extent, depends on it.

The principle of sustainability leads to creation of wealth while keeping the business environment safe. It also revolves around contributing back to the society. The small and medium enterprises must realize the significance of integrating the principles of sustainability within their business culture. The survival and sustainability of SME's is of paramount importance in this globally cutthroat business environment. To attain competitive advantage, SME;s require skilled, educated and experienced manpower. It has been observed that SME's are training their employees to develop skills needed to adapt to the changing global technology and to face rival competition in the market. The need for a stronger intellectual capital cannot be undermined in the present day business environment. The global economy has witnessed a rapid growth in industries, especially in the small and medium enterprises. The three types of capital namely human, structural and relational capital hold a very significant position in the progress of SMEs. Out of the above stated three kinds of capital, human capital is considered to occupy a more significant role in the success of small and medium enterprises. For optimum utilization, it is very important that the internal knowledge possessed by the employees of SME's is put to efficient and effective use. The knowledge and experience of SME's employees not only enhances the goodwill and image of the firm but also helps develop the structural capital with the help of transforming knowledge into processes. The relations with various stakeholders of the firm also get improved leading to the growth of relational capital. Machines and advanced technology alone cannot guarantee success of a firm. It is the experience, education, skills and dedicated efforts of the employees that lead to efficiency, success, profit and growth of a business. Therefore, the role of human capital in the value enhancement of small and medium enterprises has to be understood at different stages of business lifecycle.

### Literature Review

According to Meredith (1994), the concept of small and medium enterprise should focus not just on its sales turnover and its assets but must also include the organization and operation of the

business as well. According to Murphy (1995) Environmental sustainability relates to dealing with issues concerning environment in tune with socially acceptable norms. Corporate greening, inclusion of environmental management system, conservation of energy, reduction in waste etc. are all part of environmental sustainability (Cunha and Fensterseifer, 2011 and Blowers, 2013). Elkington, (1999), stated that the three important pillars were environmental sustainability, social and economic sustainability and deserved equal attention. According to Dyllick and Hockerts, 2002, social sustainability was crucial as it added value to the community where business operated. Nahapiet and Ghosal (1998) argued that knowledge and capability to obtain knowledge can be treated as human capital. According to McGrath and Sparks (2006), intellectual capital includes both latest and old knowledge which needs to be connected. This is possible when an exchange of information through networks takes place. The important attributes of the humans such as their skills, their experience, innovative and creative ideas play a significant role in the development and growth of an enterprise. This is also known as the human mind of the enterprise. (Bontis et.al; 2002, Steward, 1997) Bontis et.al; 2002 also stressed that the human resource managers must hire the most competent team so that the firm gains competitive advantage over its rival firms. In the past, it was observed that a few factors have been responsible for the closure of SMEs such as dearth of skilled human capital (Jeent et.al; 2006, Saleh et.al; 2006), scarcity of financial resources (Saleh et.al; 2006) and inaccessible information and communication technology. (Saleh et.al; 2006). We are all living in a highly technological advanced world, a fact crucial to the growth of both big and small enterprises. The skills and knowledge of the employees plays a significant role in the success of any organization. (Topal, Conkar and Mustafa, 2008); this is known as the intellectual capital of the enterprise. Saleh et.al. (2008) emphasized that small and medium enterprises played a very significant role in accelerating the growth, overall development, job enhancement and trade of a country. There is a close connect between the environment and industrial development and the two are closely associated with

the concept of sustainability (Hutchins Sutherland, 2008). In a study conducted by Chen et.al (2008); the aim was to analyze if any relationship existed between green innovation and the competitive advantages of companies. It was discovered that there was a positive correlation between green process technologies such as waste recycling, pollution, green product design etc. and the green products and also the competitive advantages of the firm. According to Sheth. et.al; (2011), sustainability from business point of view includes economic, social and environmental issues. In the business world, though firms are aware of the sustainability but are slow to adopt them. (Leaniz and Bosque, 2013) Wong et.al;2013 pointed out a very crucial aspect in relation to SMEs. According to him, SMEs must keep pace with the rapid technological changes taking place around the world and globalization, failure of which may lead to their closure in the first 5 years of their operations. The developed nations have always worked proactively for the cause of safeguarding environment. Various initiatives have been taken in the past such as formation of environmental ministries, rules and regulations to protect the environment. The business world also responded to such initiatives and evolved sustainable practices to combat this problem. According to Barkemeyer et.al; 2014, emphasis was shifted towards social sustainability. The impact of intellectual capital and its impact on sustainability of business was analyzed by Mukherjee and Sen (2016). The non-financial companies in India were selected to carry out the research. The authors also wanted to see if human capital impacted the sustainable corporate growth. No significant link between the human capital and corporate sustainable growth was discovered in the study. The study concluded that a positive correlation existed between intellectual capital and business sustainability. Another study was carried out by Bombika, to analyze the effect of intellectual capital on the competitive advantages of SME's and large companies located in Eastern Poland. A significant positive relation existed between the two was the result of the study. Another research was conducted by Xu and Wong (2018) to see if intellectual capital impacted the business sustainability or not. Manufacturing companies in Korea were selected

for the purpose. Yusoff et.al (2019); also conducted a study and analyzed the effect of green intellectual capital on the sustainability of business. Small and Medium enterprises actively operating in Malaysia were selected to carry out the research. According to the study, a positive correlation existed among green structural capital& relational capital and business sustainability.

Based on the studies conducted previously, the following objectives have been framed:

- To assess the impact of training on the sustainable growth & development of SME's in Delhi-NCR.
- To analyze the impact of inventive methods on the sustainable growth & development of SME's in Delhi-NCR.
- To determine the impact of skills and expertise on the sustainable growth & development of SME's in Delhi-NCR.
- To assess the impact of knowledge on the sustainable growth & development of SME's in Delhi-NCR.

## Research Methodology

### Hypothesis

- **H1:**There is no significant relationship between training and sustainable growth & development of the SME's in Delhi-NCR.
- **H2:**There is no significant relationship between inventive methods and sustainable growth & development of the SME's in Delhi-NCR.
- **H3:**There is no significant relationship between skills and expertise and sustainable growth & development of the SME's in Delhi-NCR.
- **H4:**There is no significant relationship between knowledge and sustainable growth & development of the SME's in Delhi-NCR.

### Research Design

In order to arrive at the desired results, data for the study was collected from both primary and secondary sources. A self-structured questionnaire divided in six parts was formed catering to the impact of human capital on the sustainable growth and development of the SME's in Delhi-NCR. The questionnaire was circulated among directors, CFO/CEO, managers, executive and staff level employees of various SME's through digital platforms. For

the purpose of collecting secondary data, journals, newspaper articles etc. were used.

### Sample Size and Sampling Techniques

The study was conducted among SME's in the Delhi-NCR region of India. Data was collected from 50 respondents comprising of a mixed set of directors, CFO/CEO, managers, executive and staff level employees. The sampling technique used in the study was convenience sampling.

### Research Tools

The questionnaire was constructed to assess the impact of human capital on the sustainable growth and development of the SME's in the Delhi-NCR region of India. A 5-point Likert scale indicating 1 as strongly disagree to 5 being strongly agree was used to measure the impact. The questionnaire was divided into 6 parts including demographics, training, inventive methods, skills & expertise, knowledge and sustainability. A total of 27 questions were asked from the respondent. The demographic information included details like name, age, gender, educational qualifications, annual income, name of enterprise designation and work experience. Following are the survey questions for measurement:

**Table 1: Construct measurement**

Item	Construct
Training	<ul style="list-style-type: none"> <li>I believe that training has a positive impact on the sustainable growth &amp; development of the business</li> <li>Attending workshops makes me aware of the latest developments taking place in the business world</li> <li>Attending workshops makes me better equipped to handle crisis situation</li> <li>A trained employee has a better vision of the goals of the business</li> </ul>

Inventive methods	<ul style="list-style-type: none"> <li>Use of the new &amp; innovative technology helps in giving better results</li> <li>I incorporate suggestions given by the customers for better output</li> <li>I welcome new emergent ideas related to the growth of the business</li> <li>I like to offer varied products &amp; services to the customers</li> </ul>
Skills & expertise	<ul style="list-style-type: none"> <li>I try to work with precision</li> <li>I prefer to learn from my past mistakes</li> <li>I like to maintain healthy communication with my superior/subordinate</li> <li>I like to adapt quickly to the changing market trends</li> </ul>
Knowledge	<ul style="list-style-type: none"> <li>I am responsive to the queries raised by customers</li> <li>I am receptive to the prevailing business environment</li> <li>I am fully aware of the standard operational procedure of the company</li> <li>I have complete understanding of company's rules, regulations and standards</li> </ul>
Sustainability	<ul style="list-style-type: none"> <li>We are fully equipped to handle any business crisis</li> <li>The company works hard to recover from the crisis situation</li> <li>The company has long term goals of survival and growth</li> <li>The company gives emphasis on human resource capital along with profit maximization</li> </ul>

### Statistical Tools Applied

Analysis of data was done using SPSS 22.0. Cronbach Alpha is used to indicate the reliability and consistency of the questionnaire. The value of Cronbach Alpha is between 0 & 1. A value higher than 0.7 is an indication of higher reliability whereas a value lower than 0.7 indicates lesser reliability. For interpretation of the results, descriptive statistics and multiple regression was used.

**Analysis and Interpretation**

**Table 2: Reliability Statistics**

Reliability Statistics	
Cronbach's Alpha	N of Items
.811	27

**Interpretation**

The above table 2 indicates the reliability statistics. The value of Cronbach alpha in the table is 0.811. Since the value is higher than 0.7, the variables are reliable and related closely as a group.

**Descriptive Analysis**

The demographic profile of respondents is shown in the table below:

**Table 3: Demographic Profile of Respondents**

Basis	Classification	No. of respondents	%
Gender	Female	14	28
	Male	35	70
	Prefer not to say	1	2
Age (in years)	Below 30	28	56
	31-40	6	12
	41-50	11	22
	51-60	5	10
Educational Qualifications	Graduate	32	64
	Post graduate	14	28
	Others	4	8
Work experience	Less than 1 year	6	12
	1-3years	18	36
	3-5years	4	8
	5-10years	4	8
	10years or more	18	36
Designation	Director	16	32
	CEO/CFO	5	10
	Executive level	9	18
	Manager level	5	10
	Staff level	9	18
	Others	6	12

**Interpretation**

The questionnaire was circulated among a few SME's of Delhi-NCR region of India. A total of 50 responses were received out of which 70% were males, 28% were females and 2% preferred not to say. A major proportion of the respondents were in the age group below 30 (56%) followed by 41-50 years (22%), 31-40 years (12%) and 51-60 (5%). As per the educational qualifications, 64% were graduates, 28% were post graduates and 8% belonged to the others category. It was observed that 36% of the respondents each were falling in 1-3years and 10years or more of work experience. However, 12% had work experience less than 1 year and 8% each with work experience between 1-3years and 3-5years. The dataset included 32% directors, 10% CFO/CEO, 18% each executive and staff level employees and 10% managers.

**Regression Analysis**

**Table 4: Multiple Regression Analysis of Impact of Independent Variables on Sustainable Growth & Development of SME's**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.867a	.753	.731	0.142

a. Predictors: (Constant), TECH, IM, training1, SE

**Table 5: ANOVA of Impact of Independent Variables on Sustainable Growth & Development of SME's**

ANOVA <sup>a</sup>					
Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	329.973	4	82.493	58.351	.000b
Residual	444.527	45	9.878		
Total	774.500	49			

a. Dependent Variable: S

b. Predictors: (Constant), TECH, IM, training1, SE

**Table 6: Independent Variable Results**

Independent Variable	b	Sig.
Constant	1.711	.000
Training	.096	.027



Inventive methods	.053	.034
Skills & expertise	.278	.045
Technology	.418	.068

### Interpretation

In order to assess the relationship between dependent variable- Sustainability of SME's and independent variables- Training, inventive methods, skills & expertise and technology, multiple regression analysis was carried out. Multiple regression analysis was used in order to measure the influence of independent variables on dependent variable. According to Table 4, the value of R square was .753 and value of adjusted R square was .731. As the data is being analyzed using multiple regression analysis, the adjusted R square value is taken into account. The value of 0.731 indicates that 73.1% of the variation in the dependent variable is determined by the independent variables. Since the significance value is 0.000 which is less than 0.05, hence we reject our null hypothesis (Table 5). This indicates that there is a significant relationship between all four independent variables and sustainable growth and development of SME's in Delhi-NCR region.

According to Table 6, the highest beta value is of technology i.e 0.418. Therefore, it indicates that the technology variable is of paramount importance and should be highly considered for sustainability. Skills & expertise (b-.278), training (b-.096) and inventive methods (.053) followed the lead and were significantly less important for the sustainable growth and development of SME's in Delhi-NCR region.

### Discussion & Conclusion

Firms, however big or small have to continuously face challenges to remain strong and competitive in the market. However, small and medium enterprises are faced with a number of challenges owing to their small size to sustain themselves. The customer's needs, tastes and preferences undergo continuous changes and they expect the firms to cater to their demands and keep them satisfied and fulfilled. In order to achieve this, the firms require their employees to be abreast with latest technology, updated skills and experience in their respective fields.

The study was carried out to ascertain the impact of independent variables namely training, inventive methods, skills & expertise and technology on the sustainable growth & development of SME's in the Delhi-NCR region. Multiple regression analysis was run to assess the relationship between sustainability of SME's and the independent variables stated above. The results indicated that a strong significant relationship existed among all the independent variables in respect to the sustainability of Small and Medium enterprises. As per the results indicated in the Table 6 above, it is evident that influence of technology on the sustainability on the SME's is the highest. All other independent variables like as training, inventive methods, skills & expertise also have a positive impact on SME's sustainability.

It can therefore be concluded that trained employees using latest technology accompanied with advanced skills & expertise contribute towards the sustainable growth and development of the Small and Medium enterprises in a long way.

### Limitations of the Study

The study was conducted in the Delhi-NCR region only, which limited the scope as the other states of the country were not included. Number of respondents who filled in the questionnaire was small and in future, the study can include a larger data set.

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### Author Details

**Vibha Mathur**, Associate Professor, Department of Commerce, Jesus and Mary College, University of Delhi, New Delhi, India, **Email ID:** vibhamath23@gmail.com

**Saloni Arora**, Assistant Professor, Department of Commerce, Jesus and Mary College, University of Delhi, New Delhi, India, **Email ID:** saloniarora\_17@yahoo.com