
DR. MUJIB UR RAHMAN
Faculty Member, Abdul Wali Khan University, Mardan
mujib@awkum.edu.pk

ABDUR RAHMAN
MS Scholar, City University of Science and Information Technology

SHAH RAZA KHAN
IQRA National University

Abstract
The purpose of this study is to analyze the role of social capital in development of small and medium enterprises in Peshawar Valley. Relational capital such as business relational capital and social relational capital is used as tools of social capital. Firm performance is measured using attributes like profitability and future viability. A cross sectional, descriptive and analytical research design is adopted using a representative sample of 169 manufacturing weavers. Data is collected using a self-administered questionnaire. The findings reveal a significant and positive relationship between relational capitals, firm performance. It is recommended that investment in social capital improves firm performance with a positive impact on wellbeing of overall community. Therefore, managers should intensify initiatives to encourage greater understanding and acceptance on relational capital elements, employ a viable relational capital composition that includes building strong social relational ties with the community and government and pay attention to customers and employees in order to identify their needs and provide them with optimal values. This is likely to increase firm performance and development the small and medium enterprises.

Keywords: Social Capital, Relational Capital, Firm Performance, Future Viability

1. Introduction
The twentieth century marked the significance of social institutions to economic exchange and development by a dynamic debate about social capital formations. From Simmel (1971), Weber (1969) and Polanyi (1957) to Granovetter (1973; 1985), Putnam (1993; 1995; 1998; 1999; 2000), Portes & Landolt (1996) and Woolcock (1998), argue that for economic development and entrepreneurship social relations are resources and liabilities. In their studies they expressed social capital such as trust, norms and solidarity as base for growth of entrepreneurship and economic development. As argued by Putnam (1993, 2000) that social capital is accelerating community economic
development. The communities with low level of social capital suffer with backwardness and political disengagement whiles those with have high levels of social capital are growing. This research study is the practice of Putnam’s and his follower’s theories about social capital toward development of small and medium enterprises. This research study composes investment on the precise concept, known as social capital affecting the enterprise communities. It was noted by Somerville & McElwee (2011) that the placed based community of practice is rooted by the ties to social foundation. Similarly Berkes & Davidson-Hunt (2007) observed, by making too many necessary and sophisticated cross-scale linkages, that the sustain development of social enterprises support global community economic development. The social enterprise developed by organization may therefore is the base for mobilization of resources within and outside of the community. Various factors such as networking and benchmarking are considered the contributor towards firm innovative performance by the some studies (Terziovski, 2003; Massa & Testa, 2004). Similarly Massa and Testa (2004) also stress upon that social ties and relational capital enables the manager to get more knowledge from other communities hence enable them to explore the resources with new techniques hence such reforms increase company performance comparatively. This seems mostly true into small and medium enterprise local communities.

Putnam (1993) recommended social capital as key determinant toward strong communities. Moreover to clear the meaning of social capital is a debatable issue. Usually it is clearly implicit to submit trust-based networks. Putnam argues that “high level of social capital in any community such as in small business improve the performance of the business community while low level of social capital in community makes political disconnection and a host of social harms”. This research also attempts the arguments of Putnam in the sense that for healthy families and communities social capital is an important determinant. Attempt has to undertaken to evaluate the individual and collective determinants of social capital in the business communities in rural area of Peshawar valley and the crash of dominant norms and networks on socioeconomic development.

1.1 Small and Medium Enterprise in Pakistan:
In Pakistan, Small Business Enterprises (SMEs) is major source of economic growth. Small and medium enterprise contributes almost 90 percent of the total firms over 30% to the GDP. Small & medium enterprise sharing 35% of manufacturing also 25% of manufacturing exports (Subhan, Mehmood, & Sattar, 2013). Moreover it is also a fact that the small and medium enterprise contributions to Gross Domestic Product of Pakistan decreased gradually for the period from 2007-2008 to 2010-2011 from 3.37 % to 3.24 % respective. Indicated by Pakistan Economic Survey (2013-14) small and medium enterprise with its manufacturing sector contributed 14.2% of total employed labor force with 13.3 percent of Gross Domestic Product (GDP). Out of total labor force the small and medium enterprises textile contributed 13.6% with 15.3% employment opportunities in Pakistan (Pakistan Economic Survey 2015-16). SMEDA (2018) reported that 30% contribution is made by small and a medium enterprise to GDP with 25 per cent to exports also 78% to industrial employment shows the important role of small and medium enterprises in the economic development of the
Pakistan”.

1.2 Scope of Study
The sample region is affected by terrorism. The declining trend, discussed above, of small and medium enterprise role to national income is due to the war and terror in Pakistan. The country was under military operations against terrorism. The sample province remained the main hub of such insurgencies and witnessed the military operations “Rahi Haq” and “Zarbi Gazab” in 2007 and 2014 respectively which diminished the norms and trust known as social capital between individuals, organizations and communities. Now the prosperities in the region need to be restored as the war era been finished. Before restorations of norm, trust and solidarity, known as investment in social capital, it’s needed to investigate the role myth of social capital in small and medium enterprises.

1.3 Research Gap
Social Capital is a missing indicator. This study aims to fill up the gap in theory of economics by focusing on intangible indicators known as social capital which could give a hand in achieving improved firm performance and develop the small medium enterprises.

1.4 Research Question
This research attempts to build up strong mechanism to measure social capital in the development of business communities in the sample area.

1.5 Objectives of the Study
i. To investigate the effects of social capital as relational capital on firm performance.
   a. Do the components of business relational capital influence firm performance?
   b. Do the components of social relational capital influence firm performance?
ii. To outline strategies that policymakers and program developers can use to give high up to enterprise communities.

2. Review of Literature
2.1 Firm Performance
Spivey & McMillan (2002) in his study given several measures of firm performance which consists of profitability such as earnings per share. Edwards (2004) affirmed that many indicators of profitability play role in firm financial performance of a company such as size and future viability (Barnes, 1983, Frank & Alan, 1999) also provides financial indicators such as profitability as measures of firm performance.

2.1.1 Profitability
Pandey (1996) argue that the capability of a firm to get return is identified as profitability. Generally the sales margin, proportion of capital invested and assets used are counted as return of company. Profitability measures the extent of using the available resources to generate net income. Hence the company owners, managers, investors and others normally used returns as measures of performance. They are interested in return as it is normally a margin of sales and profitability. Carlos (2004) submitted that majority of companies measuring profitability in stipulations returns on capital engaged.

\[ \text{NPM} = \text{NI x 100\% NS} \]
NPM stand for Net Profit Margin
NI stands for Net Incomes
NS stand for Net sale

Return on investment (ROI) is the domain of Return on Capital Employed (ROCE). This factor tells about the earned profit on total capitals and rates of profit.

“ROCE = Profits before Interest & Tax x 100% Total Assets – Current Liabilities”

ROCE stand for “Return on Capital Employed”

The increase ratio, higher is the profitability hence company resource too.

2.1.2 Future Viability

Bernestein (1989) confirms the need for heightened plan and strategy by firms to monitor its sales (revenues) according to future challenges. The potential plan creates stable future by growing capacity. Altman (1968) in his analysis, to determine future of an organization, developed a scores based multi discriminate model. The model used several ratios for the formulations of such scores as measures as a measure of company.

\[ Z\text{-Score} = 1.2X1 + 1.4X2 + 3.3X3 + 0.6X4 + 1.0X5 \]

Where:
X1 means Working Capital/Total Assets
X2 means Retained Earnings/Total Assets
X3 means Earnings before Interest & Tax/Total Assets
X4 means Market value of Equity/Total Liabilities
X5 means Net Sales/Total Assets

- The Z-Score >3.0 means safe future viability
- The Z-Score between 2.7 & 2.99, means careful viability
- The Z-Score between 1.8 & 2.7 means company has weak position. Near to bankrupt the company within 2 years
- The Z-Score below 1.8 means high chances of embarrassment of company financially

**Figure-1 Research Dimensions of Firm Performance**

FIRM PERFORMANCE

- Profitability
- Future Viability

**Source:** Euroform (1998), Cic (2003), Kijek (2008) a Modified Model

2.2 Social Capital in SMEs

Cousins, Handfield, Lawson & Petersen (2006) submitted that the relationship of firm with suppliers and customers is known as relational capital. Supplier relationship is the supply chain relational capital through which resources are approached. Supplier capitals are incorporated in social framework of the groups. Hence supply chain relational
capitals means the interactions between organization and its suppliers based on trust, norm and mutual respect. (Wernerfelt, 1984, Barney, 1991, Grant, 1991, Peteraf, 1993, Amit & Schoemaker, 1993, Collis, 1994) believe in RBV which means The Resource Based View of the firm. The view is based on the theory that internal ties, firm-specific factors and their effect strongly affecting firm performances. Hence recent literature is more oriented while using intangible assets such as the role of social capital in firm performance. Hence the present study is also an attempt to initiate the same.

**Hypothesis**

The specific underlying hypotheses include:
- The higher business relational capital higher will be firm performance.
- Higher social relational capital higher will be firm performance.

**Figure 2**  
Conceptual Framework of the Research Study

**3. Data And Methodology**

This research study is mainly based on primary data. Data is collected through a well-designed questionnaire. Direct investigation method is used.

**3.1 Sampled Community**

Handlooms cloth business is the sampled small and medium enterprises. The business is installed in different districts of Peshawar valley with common goals using unique method of production and producing the same commodity.

**3.1.1 Sampled Respondents**

As the members of community have been working in different regions hence purposive sampling technique is used after pilot study. Questionnaire was designed. Only weavers working in different regions with same goal, using the same method of production and producing the same commodity are interviewed. Hence out of 300 weavers 169 small firms were eligible and interviewed. The entire colonies spin out
cloth on handlooms and power looms, sealing the places reputation for some of the best homespun cloth west of Indus (The News, 2014). Data is collected from household. Head of the clusters is interviewed.

3.2 Pilot Study
A pilot study was undertaken two months prior to the full study. Factor analysis is used and reliability of data as well as viability of the research instruments is checked. Hence the research is made reliable.

3.3 Variables and its implications

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definitions</th>
<th>Sources</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Capital</td>
<td>Being a business community the business relational capitals have been taken as the main indicators of social capital.</td>
<td>Cic, (2003), Kijek (2008)</td>
<td>SC</td>
</tr>
<tr>
<td>Business Relational Capital</td>
<td>Business relational capital is the internal network of weavers/firm within the community.</td>
<td>Cousins, Handfield Lawson &amp; Petersen (2006)</td>
<td>BRC</td>
</tr>
<tr>
<td>Supplier Relational Capital</td>
<td>It is measured as the trust, mutual reverences and communications between handloom firms and their suppliers</td>
<td>Cousins, Handfield, Lawson &amp; Petersen (2006)</td>
<td>SpRC</td>
</tr>
<tr>
<td>Internal Network Relational Capital</td>
<td>Internal Relational Capital is measured as the relationship among employees within a handloom business unit</td>
<td>Jenkins (1994)</td>
<td>INRC</td>
</tr>
<tr>
<td>Customer Relational Capital</td>
<td>In this study customer relational capital has characterized as the particular relationship the handloom firm has with the external surroundings</td>
<td>Narver and Slater (1990)</td>
<td>CRC</td>
</tr>
<tr>
<td>Social Relational Capital</td>
<td>The relationship of firms with external factors such as with other social agents and its surroundings is called social relation capital.</td>
<td>Cic (2003)</td>
<td>SRC</td>
</tr>
</tbody>
</table>
Community Relation Capital is measured as the trust and relationship of the handloom firms with other agents of the same community and outside communities. Cic (2003) CnRC

Competitor Relation Capital The relationship of handloom firms with different agents related to competitive and marketing is taken as measure of competitor relation capital. Cic (2003) CmRC

Government Relation Capital In the present study the trust and interaction of handloom firms with government agencies is measure as a government relation capital. Cic (2003) GRC

4. Findings on Firm Performance
Profitability and future viability was taken as a measure of firm performance (Tumwine Sulait, 2007).

4.1 Profitability and Future Viability
The capability of firm to receive a return is known as profitability. Profitability measures to utilize the available resource by manager to generate net income or profit (Pandey, 1996). In this study net-income of the firm is used as measure of profitability.

The factor analysis, principal component analysis and Varimax Rotation methods are used to measure future viability with following result.

Table-2: Rotated Component Matrix for Future Viability

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Item reliability</th>
<th>Factor loading</th>
<th>Composite Reliability</th>
<th>Average Composite Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>FVI-1</td>
<td>0.34</td>
<td>0.24</td>
<td>0.62161</td>
<td>0.486399</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FVI-2</td>
<td>0.52</td>
<td>0.30</td>
<td>0.859546</td>
<td>0.73882</td>
<td>51.00</td>
<td>0.576304</td>
</tr>
</tbody>
</table>

Source: Primary data
FVI-1 and FVI-2 are valid with item reliability value of 0.621 and 0.859.

4.2 Relationship between Variables
To check relationship of social capital on firm performance Pearson correlation matrix is used as follows:

Table-3: Correlation between Firm Performance and Business Relational Capital

<table>
<thead>
<tr>
<th>Correlation</th>
<th>FP</th>
<th>CRC</th>
<th>SRC</th>
<th>INRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>FP</td>
<td>Pearson Correlation</td>
<td>.769**</td>
<td>.712**</td>
<td></td>
</tr>
<tr>
<td>SRC</td>
<td>Pearson Correlation</td>
<td>.769**</td>
<td>.754**</td>
<td>1</td>
</tr>
<tr>
<td>CRC</td>
<td>Pearson Correlation</td>
<td>.864**</td>
<td>1</td>
<td>.739**</td>
</tr>
<tr>
<td>INRC</td>
<td>Pearson Correlation</td>
<td>0.712**</td>
<td>.681**</td>
<td>.739**</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Table-3, revealed that the relationship between supplier relational capital (SRC) and firm performance is positive and significant with r=.769**, p-value<0.01. The result indicated significant and positive relationship of supplier relational capital (r=.769**, p-
value < 0.01), customer relational capital ($r = 0.864^{**}$; p-value < 0.01) as well of internal network relational capital ($r = 0.712^{**}$; p-value < 0.01) with firm performance.

### 4.3 Social Relational Capital Components and Firm Performance

Pearson correlation matrix is used to check the relationship between business relation capital and firm performance. The results are as follows.

**Table 4: Correlation between Firm Performance and Social Relational Capital**

<table>
<thead>
<tr>
<th>Firm-Performance Pearson Correlation</th>
<th>CpRC</th>
<th>CMRC</th>
<th>GRC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm-Performance Pearson Correlation</td>
<td>1</td>
<td>.629**</td>
<td>.704**</td>
</tr>
<tr>
<td>CpRC Pearson Correlation</td>
<td>.629**</td>
<td>1</td>
<td>.595**</td>
</tr>
<tr>
<td>CMRC Pearson Correlation</td>
<td>.704**</td>
<td>.595**</td>
<td>1</td>
</tr>
<tr>
<td>GRC Pearson Correlation</td>
<td>.69</td>
<td>.146</td>
<td>.202**</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4, the result indicated significant and positive relationship of Competitor relational capital ($r = 0.629^{**}$, p-value < 0.01), Community relational capital ($r = 0.704^{**}$; p-value < 0.01) as well of internal Government relational capital ($r = 0.712^{**}$; p-value < 0.01) with firm performance.

### 4.4 Regression Analysis

Multiple regression analysis is based on some assumptions hence the following tests are used to diagnose the assumptions:

#### 4.5 Multicolinearity

To check whether the problem of Multicolinearity exists the following two test are used.

#### 4.5 Variant Inflated Factor Test (VIF):

**Table 5: Variant Inflated Factor Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRC</td>
<td>3.39</td>
<td>0.294838</td>
</tr>
<tr>
<td>SRC</td>
<td>3.39</td>
<td>0.294838</td>
</tr>
</tbody>
</table>

Mean VIF = 3.39

The value of VIF is less than 10; suggest that there is no chance of Multicolinearity in the model.

#### 4.6 Auxiliary Regression Method

Auxiliary regression method is also used to check the nature of Multicolinearity in the model i.e regression of each independent variable on the remaining variables.

**Table 6: Auxiliary Regression**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>$R^2$ Value</th>
<th>Tolerance (TOL)=1-$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRC</td>
<td>0.70</td>
<td>0.30</td>
</tr>
<tr>
<td>SRC</td>
<td>0.70</td>
<td>0.30</td>
</tr>
</tbody>
</table>
Whereas; BRC= Business Relation Capital, SRC= Social Relation Capital

Applying Kien’s rule of thumb, the R² values of the dependent variables resulting from the auxiliary regression are less than overall the original R² value of 0.76, suggesting no problem of Multicolinearity.

4.7 Heteroscedasticity
Recall that ordinary least square method makes the assumption that the variance of the error term is constant (Homoscedastic). If the error terms do not have constant variance, they are said to be Heteroscedasticity.

\[ V(\mu_j) = \sigma^2 \text{ for all } j. \]

We have to check the Heteroscedasticity in the model for the explanatory variables.

\[
\begin{align*}
H_0 : & \text{ Data is Homoscedastic } \\
H_1 : & \text{ Data is Heteroscedastic }
\end{align*}
\]

The following two tests are used.

4.8 Breusch-Pagan / Cook-Weisberg test for Heteroscedasticity
The Breusch-Pagan test is designed to detect any linear form of Heteroscedasticity. Accordingly when the value of chi-square is large than four, indicate that the Heteroscedasticity remain present in the model.

\[
\text{Chi2}(1) = 5.13 \\
\text{Prob} > \text{Chi2} = 0.0235
\]

The value of chi2 (1) is 5.13 which is more than four, but close to four. It hereby suggests presence of the problem of Heteroscedasticity in the data. Closer value of Ch2 to four indicates the weak position of Heteroscedasticity in the data. To clear the position of the problem we check the Heteroscedasticity by applying the following test.

4.9 White's and Cameron & Trivedi's decomposition of IM-test

\[
\begin{array}{cccc}
\text{Source} & \text{Chi2} & \text{Df} & \text{P} \\
\hline
\text{Heteroscedasticity} & 7.97 & 5 & 0.1577 \\
\text{Skewness} & 8.69 & 2 & 0.0130 \\
\text{Kurtosis} & 0.83 & 1 & 0.3617 \\
\text{Total} & 17.49 & 8 & 0.0254 \\
\end{array}
\]

Hence the Ch2 value is 7.97 which is high and predict the presence of Heteroscedasticity in the data.

4.10 Remedial Measures
Allison points out, that robust regression only change the co-efficient while the standard errors remains constant but the test statistics give reasonably accurate p values as the value of standard errors changed. The data is free of the problem of Multicolinearity and Heteroscedasticity after performing the robust regression option as follows:

\[
\begin{array}{cccccc}
\text{FP} & \text{Coef.} & \text{Std. Err.} & \text{T} & \text{P>|t|} & \text{95% Conf. Interval} \\
\hline
\text{BRC} & 1.00239 & 0.0958051 & 10.46 & 0.000 & .8132371-1.191544 \\
\text{SRC} & .2146015 & 0.0905516 & 2.37 & 0.019 & .0358202-.3933828 \\
\text{Cons} & -.2557402 & 0.0329723 & -7.76 & 0.000 & -.3208394-.190641 \\
\text{R²} & .7639 & & & & \\
\end{array}
\]
The F-ratio is highly significant hence the model is good fit. The explanatory variables showed positive significant effects on the firm performance. The result is supported by De Declerq & Sapienza (2006) who argues that the trust based relationship of firms with employees, customers and supplier is reducing cost on production. It facilitates the efficient exchange of information’s and creates new ways to explore the resources. The R² value 76.39% indicates that 76.39% variation occurs in firm performance due to social capital. The study of Kaplan and Norton (2004) in the Taiwanese limited companies is in line with this study who concluded that relational capital is being increasingly recognized as the major drive for corporate and national growth.

5. Conclusions and Recommendations
5.1 Business Relational Capital and Firm Performance
This study concluded with a significant impact of firm customer capital on firm performance. The study also reveals that the said relationship is positive. The result of is in line with the study of Bontis (1998) firm performance and company growth is motivated by knowledge of marketing channels and by the customer relationships with manager. The study further concluded a significant impact of supplier relational capital on firm performance. Good relationships with supplier help the manager to gain optimum point. Hence Gregorio Martin and Pedro Lopez (2005) also recommended the same results supplier relations capital play vital role in the firm performance. Accordingly this segment needs special attentions.

The result of this study about the impact of internal network relational capital on firm performance is also significant and positive. The result is supported by Tsai, Ghoshal (1998) who argued that the relationship among employees is crucial in a social system and business community. Further to this, managers that embraced strong ties among employees such as learning from one another’s experience, creativity and team work; and have invested heavily in sustaining these, holds a strong position among other firms in the industry and have maneuvered a higher return. This finding concurs with Kijek (2008) who argued that the high level of relationship among employees is sufficient condition for the knowledge flow from the environment to the organization.

5.3 Social Relational Capital and Firm Performance
On this objective the findings shows a significance and positive relationship between Social Relational Capital and firm performance. The study concluded a positive and significant impact of the social relational capital such as competitor relational capital and firm performance. Kogut (2000) also conclude the same results while examined the case of computer and electronics manufacturing company. Findings from the study further revealed that there exists a significant and positive relationship between community/social responsibility and firm performance. This concurs with McGuire, et. al, (1998) who asserted that it is critical for organizations to reach higher levels of involvement and by this way, social responsibility of the firm relates highly with the firm financial outcomes. Further too, social relational capital findings reveal that there exists an insignificant relationship between government relationships and firm performance. This finding concurs with Rajan & Zungales (2000) who argued that creation of social capital is positively influenced by ethics and corporate governance codes. Ethics and corporate governance stimulate the solidarity and overcoming market imperfections. The
overall results indicate that social capital components significantly and positively affect firm performance.

5.4 Recommendations
As concluded above, a positive and significant relationship between firm performance and social capital. Following suggestions recommended for the growth of the small and medium enterprisers:

i. Relational Capital should be encourage by the management of small and medium enterprises

ii. High investment should be made in customer relational capital, supplier relational capital and community relational capital in order to improve the overall welfare, strength, profitability and performance of small and medium enterprise

iii. Strong networking and ties are needed within and outside of the business communities

iv. The result of this study should be extended to other communities which are targeting social well and economic growth. As concluded by Gratton and Ghoshal (2003), Hinge (2006) that the relationships with both internal and external stakeholders is an important necessity in the development of infant private sector in less developed countries to deliver and match stakeholder’s expectations.

References


