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THE SOCIAL CAPITAL OF A FIRM: ARE WE FOCUSING ON THE RIGHT FACET?

Social capital is a recognized concept in management literature. While its many components have been found to have an impact on a firm's competitive advantage, there is a literature gap concerning their relative importance. Our study tests 10 hypotheses referring to the social capital components' individual and collective impact on a firm's competitive advantage. The study was conducted in the Polish packaging industry. Our evidence confirms the positive relationship of structures, processes, norms and attitudes as social capital components to competitive advantage. We also find evidence that the relationships between social capital and competitive advantage is linear, contrary to the "paradox of embeddedness" hypothesis which suggests that social capital displays a non-linear relationship with performance.

Keywords: social capital, structures, competitive advantage, Embeddedness

1. INTRODUCTION

Within the stream of research on a firm's intangible assets, social capital was recognized three decades ago (Granovetter, 1992), some years after its introduction into sociology literature (Bourdieu, 1980; Coleman, 1988). If a firm is not an isolated actor (Hakanson and Snehota, 2006) then neither endogenous, nor exogenous factors can provide an exhaustive explanation of a firm's performance and competitive advantage. The researchers' attention therefore shifted to factors lying between the firm and its environment, such as: structures of relationships around the firm (Burt, 1992), relational norms and trust (Uzzi, 1996), and interorganizational relationships' governance (Jones, Hesterly and Borgatti, 1997).

A crucial issue addressed through social capital refers to the impact of social variables described under a multifaceted concept (Moran, 2005) on a firm's performance. Initially, structural variables describing ties and their configurations attracted a disproportionate amount of attention in the literature (Bernardes, 2010). Later on, the relational facet of social capital, including norms and trust, became more popular (Uzzi, 1997). In particular,

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trust was attributed significant importance in the shaping of the competitive advantage of firms (Zaheer and Venkatraman, 1994).

The body of literature on social capital demonstrates its positive impact on a firm's performance (Westlund and Adam, 2010). Nevertheless, there is evidence of an insignificant relationship (Andrews, 2010), or negative effects (Rodan and Galunic, 2004), which supports the view that the social capital impact on a firm's performance is paradoxical (Uzzi, 1997). Too much, or not enough social capital would yield far worse results compared to its moderate use. Seen from this perspective, a successful exploitation of social capital requires from managers a careful balancing, or some distinctive capabilities (Capaldo, 2007). Yet the wide body of available literature provides little guidance on social capital's composition and its elements' impact on competitive advantage, thus limiting the managerial relevance of the concept.

Our research addresses the issue of social capital composition. We aim at understanding the relative importance of its inner elements in achieving the competitive advantage of firms. Furthermore, we tackle the idea that social capital components are associated with dependent variables in a non-linear relationship. Should the role of social capital be ambiguous, managers would be required to strive for a balance between the benefits and drawbacks associated with it. Inversely, should social capital's relationship with competitive advantage be linear, managers would rather be expected to maximize the accumulation and exploitation of social capital.

The paper is organized in four sections. Firstly, we discuss the theoretical background and develop our hypotheses. Then, our empirical study methodology is explained. We have conducted a survey-based study of 94 firms in the Polish packaging industry. Thirdly, the empirical results are presented. Fourthly, we discuss our empirical findings, and propose a contribution in elucidating social capital's impact on competitive advantage. Contrary to wide-spread belief, trust does play a far less significant role compared to the structural element of social capital in contributing to a firm's competitive advantage.

2. THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

The term, social capital, was coined by Bourdieu (1980) to encompass the sum of potential and actual resources available to individuals, through a network of more or less institutionalized relationships of acquaintance and

recognition. From a sociological point of view, this broad concept has played a major role in our understanding of individual actions.

Social capital bridges the social dimension of human condition with economic actions and their outcomes. Coleman (1988) explains how it can contribute to productive action, and that it is manifest in trustworthiness and trust (Western et al, 2005). Also, in the strategic management literature, the linkage between resources dispersed among many firms is performed by social capital (Nahapiet and Ghoshal, 1998). Interestingly, prior research insists on non-linear relationships between social capital operational variables and competitive advantage, learning or efficiency. For instance, Uzzi (1997) suggests that social capital may lead to overly cohesive groups. Thus firms might be induced to reject information from beyond their immediate cohesive network, which in the long term hampers innovation, decreases responsiveness and may harm competitive advantage. Beyond this proposition, however widely cited, there are few empirical studies that test the U-shaped relationship hypothesis. We believe that this is a significant gap in social capital theory development.

2.1. Social capital impact on firms

The application of the social capital concept reflects the recognition of different, idiosyncratic networks of relationships, which implies that some individuals may be in a better situation than others. Similarly, social capital distorts the competitive game in the market, by providing some firms with a better information access, broader transaction opportunities and collective action prospects, resulting in a comparative advantage over others (Burt, 1992; Uzzi, 1996). Also, social capital influences inter-firm cooperation, as it offers some firms more opportunities and facilitates the formation of alliances (Gulati and Gargiulo, 1999).

The literature gives both theoretical and empirical foundation to recognizing that social capital increases the performance of firms and can be a source of competitive advantage. Social capital is generated by creating and maintaining social ties (Lin, 2001: 134), implying that both the nature of the ties and their network would differentiate performance. Structures of social ties have been found to convey knowledge and increase a firm's performance (Granovetter, 2005). Prior research also sheds light on how social capital grants a privileged access to resources (Blyler and Coff, 2003), fosters knowledge transfer (Inkpen and Tsang, 2005), improves a firm's chances of survival (Shan et al, 1994) and sales performance (Moran, 2005)

and enhances entrepreneurial firms growth (Pirolo and Presutti, 2010). However, there is less evidence on the impact on competitive advantage. We adopt Barney's (1991) understanding of competitive advantage, which refers to implementing a value creating strategy not simultaneously being implemented by competitors. Value creation refers to achieving above average performance, while the second condition refers to somewhat unique or difficult to imitate strategic behaviours. Also, prior studies have mostly been adopting an aggregate view on social capital without investigating its composition or exploring which of the elements displays the most notable impact. We believe that there is a gap in exploring in more detail the social capital "blackbox", in order to further develop previously established correlations.

2.2. Social capital – the composition of an umbrella concept

Social capital is often used as an umbrella concept, which allows to capture a wide variety of elementary facets (Adler and Kwon, 2002). For instance, Putnam (2000) claims that social capital is composed primarily of two elements – social networks and social norms of action governing them. Some authors suggest adding a cognitive dimension in order to capture normative or cultural elements of social capital (Nahapiet and Ghoshal, 1998). Further studies on social capital offer a number of insights into its components. The scope of the concept has been broadened to incorporate such concepts as: trust, social bonds, recognition, proactiveness, collaboration, behavioural norms (Gulati, 1998; Dyer and Singh, 1997; Cannon et al, 2000; Jones et al, 1997) and many others. We have decomposed the social capital concept into four facets: structures, processes, norms and attitudes. Our hypotheses are developed for each facet and then aggregated to explore their relative importance.

We draw on Bourdieu's (1980) definition of social capital, which emphasizes structures, to hypothesize that the more a firm creates and sustains a structure of relationship, the more likely its performance is to increase. Structural social capital describes how the structure of social interaction generates access to resources (Lee, 2009). Within structural considerations, the literature has strongly focused on the importance of single ties in order to examine how weak or strong ties facilitate access to information (Granovetter, 1973), as well as how bridging ties improve competitive position (Burt, 1992). Another thread of structural

considerations adopts the network level of analysis to focus on such variables as size, configuration and centrality.

The literature offers evidence of the positive impact of structural variables on innovation (Zheng, 2010), sales performance (Moran, 2005), growth of start-ups (Maurer and Ebers, 2006, Pirolo and Presutti 2010), and the performance of firms (Westlund and Adam, 2010). However, previous research also provided divergent results. Recent studies show no statistical support for the positive role of structures in improving performance (Andrews, 2010). A strain between the advantages stemming from large and heterogeneous network structures and the costs of coordinating, protecting rents and reducing uncertainty emerged in the literature (Rodan and Galunic, 2004). It is therefore justified to test the positive and non-linear relationship of structural social capital on the competitive advantage hypotheses:

H1a. Structural social capital is positively related to the competitive advantage of a firm.

H1b. Structural social capital is associated with competitive advantage in a non-linear relationship

Further on, we contend that structures of social ties convey communication and joint activities in order to yield to connected firms (Molina-Morales and Martinez-Fernandez, 2010). It is difficult to dissociate the processes from the structures upon which action is deployed. While some researchers underline the mutual adaptation and communication processes in social capital research (Chetty and Agndal, 2007), other studies take a more strict position and claim social capital to be a process in itself (Anderson and Jack, 2002). Viewed from this perspective, social capital becomes a social process of cooperative action and communication, which is embedded in other facets – be it structures, relations or attitudes. We adopt the broader view that that the more a firm collaborates and communicates through its structure of relationships, the more likely it is to achieve a competitive advantage (H2a). Later, we test the paradox of embeddedness hypothesis (Uzzi, 1996) which suggests that the relationship between social processes and the competitive advantage of a firm is non-linear (H2b):

H2a. Social processes are positively related to a firm's competitive advantage.

H2b. Social processes are associated with competitive advantage in a non-linear relationship

Social norms define what action is deemed appropriate, acceptable or unacceptable, and form a relational value system (Adler, 2001). Social capital norms are said to facilitate the exchange of information, reduce uncertainty connected with opportunism, and allow exchange in an informal way (Lin, 2001). The set of norms and values shared within a group of individuals define its intrinsic culture, building loyalty and identity within network interactions (Lee, 2009). While there is a vast literature on the benefits available to firms which share relational norms, the embeddedness paradox suggests that the stronger the norms, the more cohesive becomes their social capital, then, in turn, the less responsive and innovative firms become, which impedes their competitive advantage (Westlund and Adam, 2010). An ambiguous relationship appears between norms in social capital and dependent variables under scrutiny. We therefore hypothesize that social norms remain in a positive and non-linear relationship with competitive advantage:

H3a. Social norms are positively related to the competitive advantage of a firm.

H3b. Social norms are associated with competitive advantage in a non-linear relationship.

Finally, social capital attitudes link trust, recognition and proactiveness with higher performance, leading to competitive advantage (Cannon, Achrol and Gundlach, 1998). Attitudes have been differentiated from behaviour (Brewer, 2003) to illustrate the difference between feelings and commitments, captured by the notion of attitudes, and the observed conduct, captured by the notion of behaviour (Trevino, Butterfield and McCabe, 1998). For instance, attitudes including social trust, social altruism, equality, tolerance and humanitarianism were found to be more significant for public servants than for other citizens (Brewer, 2003).

Extant literature suggests that social attitudes contribute to containing opportunism and decreasing transaction costs (Das and Teng, 1998), fostering collective learning (Gubbins and MacCurtain, 2008) and facilitating resource acquisition (De Wever et al, 2005). Researchers have even widely used trust as a proxy for social capital (Westlund and Adam, 2010). We adopt the view that trust can be defined as “a type of expectation that alleviates the fear that one’s exchange partner will act opportunistically” (Nooteboom, 2007). Trust and recognition have been found beneficial for firms, but also proven to display a dark side, as they might tend to be

exclusivistic and elitist (Adler, 2001). As a result, a paradoxical relationship between trust and performance might emerge. We intend to challenge this view and test a hypothesized positive and non-linear relationship between attitudes and competitive advantage.

H4a. Social attitudes are positively related to a firm's competitive advantage.

H4b. Social attitudes are associated with competitive advantage in a non-linear relationship.

Prior studies focused expressly on social capital facets taken together or inversely, in separation, while we will take a look at their relative importance. We hypothesize that norms, attitudes and processes are overrated in the existing research versus the structural component of social capital. We also intend to challenge the established assumption of social capital's ambiguous impact on competitive advantage, as conceptualized by the paradox of embeddedness (Uzzi, 1997).

H5a. Among social capital components it is the structural capital which displays the most significant relationship with competitive advantage.

H5b. Social capital components together are associated with competitive advantage in a linear relationship.

3. RESEARCH METHODOLOGY

In order to address our research objectives we conducted a survey-based research. A 40-item questionnaire was presented to top executives in our sample. Firstly, the respondents assessed the competitive advantage of their firms. Next, we asked a set of questions relative to social capital components.

The variables were measured by our respondents on a 7-point Likert scale, depending on the grade of importance they attributed to each social capital component under scrutiny. Thus, we were able to grasp a managerial perspective on the individual and relative importance of social capital components. We then ran correlation tests and regression analyses on our database.

3.1. The sample

The study focused on the packaging industry in Poland, for several reasons. Firstly, the employment in the sector stands at 200 thousand people and has a significant 2% share of GDP. Secondly, it is one of the fast growing sectors of the Polish economy. The total tonnage of packaging produced in Poland increased from 1.3 million tonnes in 1998 to 3.8 million tonnes in 2008, achieving growth of more than 300%. Thirdly, the market is characterized by a high degree of concentration of production. From among the two thousand producers, less than 300 satisfy the needs of the entire market. Finally, the study was endorsed by the Polish Chamber of Packaging, which ensured a reasonably high response rate.

As a result, we selected 268 firms, 101 questionnaires were filled in and sent back. Further 7 questionnaires were rejected as incomplete, to obtain effectively 94 questionnaires accepted for data analysis. The response ratio reached 37.68%, and the accepted questionnaires represented 35.07% of the initial sample.

4. RESULTS

Before proceeding to the hypotheses testing we checked the reliability of the data collected. For the total scale, the Cronbach's alpha coefficient is above 0.9. Given the high reliability of the entire scale we did not find our observation rejectable. Secondly, the one-sample Kolmogorov-Smirnov test showed that we can assume the normal distribution of all the considered variables. For each variable the level of asymptotic significance is higher than the level of significance at 0.05.

4.1. Correlation analysis

In order to address the hypothesized positive relationships between social capital facets and competitive advantage, we ran correlation tests. All the correlation coefficient values proved to be positive, moderately strong and statistically significant (Table 1).

Table 1
Correlation analysis

| | | Dependent variable | Independent variables | | | |
|------------------------------------|----------------|-----------------------|-----------------------|-----------|---------|-----------|
| | | Competitive advantage | Structures | Processes | Norms | Attitudes |
| N | | 94 | 94 | 94 | 94 | 94 |
| Pearson's coefficient | | | 0.614** | 0.490** | 0.517** | 0.378** |
| Normal parameters ^{a, b} | Mean | 5.697 | 5.341 | 5.517 | 5.209 | 5.313 |
| | Std. Deviation | 0,6608 | 0.7017 | 0.7619 | 0.7336 | 0.7713 |
| Other parameters | Minimum | 4.3 | 3.5 | 3.4 | 2.8 | 3.1 |
| | Maximum | 7.0 | 6.8 | 6.9 | 6.8 | 6.9 |
| Most extremes | Absolute | 0.102 | 0.092 | 0.084 | 0.122 | 0.059 |
| | Positive | 0.102 | 0.043 | 0.046 | 0.069 | 0.050 |
| | Negative | -0.098 | -0.092 | -0.084 | -0.122 | -0.059 |
| One-Sample Kolmogorov-Smirnov Test | | | | | | |
| Kolmogorov-Smirnov | | 0.994 | 0.892 | 0.813 | 1.183 | 0.577 |
| Assymp. Significance (2-tailed) | | 0.277 | 0.403 | 0.524 | 0.122 | 0.893 |

Source: own elaboration

Note: both the dependent variable and the independent variables were estimated as a mean of the answers given by the respondents (based on 7 point Likert scale)

** Correlation is significant at the level 0,01 (2-tailed)

^a Tested distribution is normal

^b Calculated from data

The value of the correlation coefficient for the relationships between structures and competitive advantage is 0.614, which proves a positive, relatively strong relationship between structural social capital and a firm's competitive advantage. The level of significance of less than 0.01 indicates a very low level of uncertainty of the results and a high statistical significance. This indicates that there is no basis for rejecting the hypothesis H1a.

The process facet of social capital was addressed in hypothesis H2a, and our evidence shows that there are no reasons to reject this hypothesis. The value of the Pearson's coefficient is almost 0.5, which means a positive and moderately strong correlation. The significance level also indicates the importance of the statistical data.

The norms facet of social capital displays a 0.51 Pearson's coefficient, which suggests that there are no grounds for rejecting hypothesis H3a.

The fourth social capital component are attitudes, which include trust, recognition and proactiveness. This correlation displays the lowest value out of all the tested associations, 0.38, which means a positive, yet weak

relationship. Based on these results there is no reason to reject hypothesis H4a, in which social processes are positively related to competitive advantage.

4.2. Regression analysis – shape of the relationship

In order to address the hypothesized non-linear relationship between social capital facets and competitive advantage, we ran regression analyses on single variable models, linking structures, processes, norms and attitudes separately to competitive advantage. We tested linear, logarithmic, quadratic, cubic, exponential and logistic associations. Then we compared the results based on R^2 to indicate the best fit model.

Our data suggest that the relationship between structural social capital and competitive advantage is indeed non-linear, with the linear model displaying the lowest R^2 value of 0.378 (Table 2). There are no grounds for rejecting our hypothesis H1b. However, it is interesting to note that a quadratic (U-shaped) association yields the same fit. Also, the differences against the best fit models, which were revealed to be exponential and logistic, are very slim.

Table 2
Structures explaining competitive advantage

| Equation | Model Summary | | | | | Parameter Estimates | | | |
|-------------|---------------|--------|-----|-----|--------------|---------------------|-------|--------|--------|
| | R^2 | F | df1 | df2 | Significance | Constant | b1 | b2 | b3 |
| Linear | 0.378 | 55.805 | 1 | 92 | 0.000 | 2.606 | 0.579 | | |
| Logarithmic | 0.377 | 55.706 | 1 | 92 | 0.000 | 0.800 | 2.939 | | |
| Quadratic | 0.378 | 27.703 | 2 | 91 | 0.000 | 1.796 | 0.897 | -0.031 | |
| Cubic | 0.379 | 27.722 | 2 | 91 | 0.000 | 2.007 | 0.755 | 0.000 | -0.002 |
| Exponential | 0.384 | 57.376 | 1 | 92 | 0.000 | 3.248 | 0.104 | | |
| Logistic | 0.384 | 57.376 | 1 | 92 | 0.000 | 0.308 | 0.901 | | |

Source: own elaboration

Independent variable: Structures

Dependent variable: Competitive advantage

As far as processes relationship with competitive advantage is concerned, the quadratic relationship displays the best fit of $R^2 = 0.258$; Table 3). Thus, there are no grounds for rejecting our hypothesis H2b.

Table 3
Processes explaining competitive advantage

| Equation | Model Summary | | | | | Parameter Estimates | | | |
|-------------|----------------|--------|-----|-----|--------------|---------------------|--------|-------|-------|
| | R ² | F | df1 | df2 | Significance | Constant | b1 | b2 | b3 |
| Linear | 0.240 | 29.104 | 1 | 92 | 0.000 | 3.351 | 0.425 | | |
| Logarithmic | 0.226 | 26.895 | 1 | 92 | 0.000 | 2.028 | 2.161 | | |
| Quadratic | 0.258 | 15.841 | 2 | 91 | 0.000 | 6.793 | -0.886 | 0.122 | |
| Cubic | 0.258 | 15.821 | 2 | 91 | 0.000 | 5.696 | -0.246 | 0.000 | 0.008 |
| Exponential | 0.242 | 29.371 | 1 | 92 | 0.000 | 3.721 | 0.076 | | |
| Logistic | 0.242 | 29.371 | 1 | 92 | 0.000 | 0.269 | 0.927 | | |

Source: own elaboration

Independent variable: Processes

Dependent variable: Competitive advantage

The association between norms and competitive advantage is also clearly non-linear, which does not provide grounds for rejecting hypothesis H3c. The best fit models are once again exponential and logistic with a R² value of 0.273 (Table 4). Again, it is interesting to note the slim difference of fit against the linear model. Also, the inverted u-shape relationship does not prove best fit.

Table 4
Norms explaining competitive advantage

| Equation | Model Summary | | | | | Parameter Estimates | | | |
|-------------|----------------|--------|-----|-----|--------------|---------------------|-------|-------|-------|
| | R ² | F | df1 | df2 | Significance | Constant | b1 | b2 | b3 |
| Linear | 0.268 | 33.635 | 1 | 92 | 0.000 | 3.269 | 0.466 | | |
| Logarithmic | 0.259 | 32.205 | 1 | 92 | 0.000 | 1.991 | 2.260 | | |
| Quadratic | 0.270 | 16.834 | 2 | 91 | 0.000 | 4.269 | 0.065 | 0.039 | |
| Cubic | 0.270 | 16.834 | 2 | 91 | 0.000 | 4.269 | 0.065 | 0.039 | 0.000 |
| Exponential | 0.273 | 34.536 | 1 | 92 | 0.000 | 3.657 | 0.084 | | |
| Logistic | 0.273 | 34.536 | 1 | 92 | 0.000 | 0.273 | 0.920 | | |

Source: own elaboration

Independent variable: Norms

Dependent variable: Competitive advantage

Finally, the relationship between attitudes and competitive advantage is again non-linear, with exponential and logistic R² hitting the highest value of 0.147 (Table 5). It is important to underline that the differences of R² values for the models tested remain very slim, and the values of R² are quite low, even as compared to the other social capital facets tested in our study.

Table 5
Attitudes explaining competitive advantage

| Dependent variable: Competitive advantage | | | | | | | | | |
|---|----------------|--------|-----|-----|--------------|---------------------|-------|-------|-------|
| Equation | Model Summary | | | | | Parameter Estimates | | | |
| | R ² | F | df1 | df2 | Significance | Constant | b1 | b2 | b3 |
| Linear | 0.143 | 15.318 | 1 | 92 | 0.000 | 3.977 | 0.324 | | |
| Logarithmic | 0.140 | 14.967 | 1 | 92 | 0.000 | 3.025 | 1.610 | | |
| Quadratic | 0.143 | 7.582 | 2 | 91 | 0.001 | 4.207 | 0.232 | 0.009 | |
| Cubic | 0.143 | 7.582 | 2 | 91 | 0.001 | 4.207 | 0.232 | 0.009 | 0.000 |
| Exponential | 0.147 | 15.879 | 1 | 92 | 0.000 | 4.146 | 0.059 | | |
| Logistic | 0.147 | 15.879 | 1 | 92 | 0.000 | 0.241 | 0.943 | | |

Source: own elaboration

Independent variable: Attitudes

4.3. Regression analysis – the relative importance of facets

Our data suggest that there is no reason for rejecting a positive linear relationship between each of the social capital concept components and competitive advantage. Yet different levels of correlation strengths encourage refining the study. In order to further fine tune our results we ran a regression analysis. The identification of the regression model applying ordinary least squares approach consisted in testing sixteen models, from only one to all four social capital facets (Table 6).

Using Student's t-test, the significances of particular parameters in the considered models were evaluated. Generally, only six out of sixteen models contain significant parameters at least at the 0.05 level. Therefore, to identify the most appropriate model we took into consideration both the level of standard errors and the coefficients of determination. Consequently, model 7 is the best-fit one. In this model, structural social capital (0.447 unstandardized coefficient), and norms (0.211 unstandardized coefficient) explain 41.3% of the variance of competitive advantage, and all the parameters are significant (constant and structures at 0.000 and norms at 0.05 level). The coefficient of determination of 0.413 remains at a satisfactory level (Flamholtz and Aksehirli, 2000). The coefficient of determination is satisfactory, but it shows the existence of other factors affecting the dependent variable, which fall beyond the scope of our study.

Table 6. Analysis of the linear regression the social capital – competitive advantage

| Variables | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 | Model 9 | Model 10 | Model 11 | Model 12 | Model 13 | Model 14 | Model 15 |
|----------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Structures | 0.407*** (0.105) | 0.409*** (0.103) | 0.454*** (0.103) | | 0.444*** (0.098) | 0.475*** (0.097) | 0.447*** (0.094) | 0.534*** (0.089) | | | | 0.579*** (0.77) | | | |
| Processes | 0.089 (0.097) | 0.090 (0.096) | 0.142 (0.092) | 0.229* (0.097) | | 0.155 (0.090) | | | 0.242* (0.095) | 0.348*** (0.088) | | | 0.425*** (0.79) | | |
| Norms | 0.174 (0.104) | 0.176 (0.098) | | 0.281* (0.108) | 0.205* (0.098) | | 0.211* (0.090) | | 0.313*** (0.098) | | 0.402*** (0.097) | | | 0.466*** (0.080) | |
| Attitudes | 0.005 (0.087) | | 0.054 (0.083) | 0.068 (0.092) | 0.013 (0.086) | | | 0.082 (0.081) | | 0.165 (0.087) | 0.107 (0.093) | | | | 0.324*** (0.083) |
| Constant | 2.096*** (0.476) | 2.104*** (0.456) | 2.204*** (0.476) | 2.610*** (0.491) | 2.192*** (0.464) | 2.306*** (0.448) | 2.212*** (0.441) | 2.409*** (0.460) | 2.731*** (0.462) | 2.901*** (0.493) | 3.032*** (0.469) | 2.606*** (0.417) | 3.351*** (0.439) | 3.269*** (0.423) | 3.977*** (0.444) |
| R ² | 41.8% | 41.8% | 40.0% | 32.1% | 41.3% | 39.7% | 41.3% | 38.5% | 31.7% | 26.9% | 27.8% | 37.8% | 24.0% | 26.8% | 14.3% |
| d.f. | 13 | | | | | | | | | | | | | | |
| N | 94 | | | | | | | | | | | | | | |

Source: own elaboration

Interestingly, the processes and attitudes were not found to yield a strong impact on competitive advantage. It should be noted that, regardless of the model tested, structural social capital appears to be the most important factor for a firm's competitive advantage. This suggests that there are no grounds for rejecting our hypothesis H5a.

Also, the regression analysis does not provide grounds for rejecting our hypothesis H5b, which suggests a linear relationship between social capital facets and competitive advantage. Interestingly, while each facet is associated to competitive advantage in a non-linear way, all the facets taken together appear to be linearly related to competitive advantage. This may be explained by interactions between the facets.

5. DISCUSSION

The social capital idea has been recognized in management literature for three decades now. The popularity of this concept peaked in the 1990s, since then more focused and refined studies have been published. The bulk of literature claims that social capital does have an impact on a firm's performance. Nevertheless, prior studies adopted a more fragmented approach, testing the social capital's impact only for one or two of its facets, or at aggregate levels of analysis. Consequently, we believe that trust and social norms have received a significantly overrated attention, while the impact of structural social capital has been taken for granted.

Our findings challenge this view in several ways. Firstly, we have demonstrated through linear correlation coefficients that each social capital component, be it structural, processes, norms or attitudes, displays a positive relationship with competitive advantage. Contrary to recent studies (Andrews, 2010), which did not find support for the role of structural social capital in increasing performance, our evidence suggests that it plays a major role. This supports extant literature in that social capital is a multifaceted, or an umbrella concept, and each of its elements has managerial relevance. Consequently, further research should be expected to address the issue of completing the social capital components' list, along with various taxonomies.

Secondly, the curve estimation suggests that the relationship of social capital facets with competitive advantage is non-linear. In line with the paradox of the embeddedness proposition (Uzzi, 1997) we have found that structural social capital and processes are best described by a U-shaped,

quadratic model. Interestingly, for norms and attitudes in social capital, the best fit relationship is exponential, and does not display limited relationship strengths for low and high values. This finding contradicts the paradox of the embeddedness hypothesis, which suggests that for high values of norms a firm's performance is likely to decrease. Our data also suggest that the relationship of structural and processual facet of social capital is different from its normative and attitudinal facets. In other words, when considered separately, the social capital facets display a different impact on competitive advantage. Moreover, this impact falls in line with the expectation of higher strength for moderate explanatory variables values only for structural and processual social capital.

Thirdly, we find evidence that structural social capital matters more than any of its other components. Interestingly, attitudes which include trust are not found in our study as particularly relevant. This supports the initial architecture of the social capital construct, as proposed by Bourdieu (1980), with social ties allowing access to resources, in turn allowing action. The trust and social norms components added further on in the strategic management literature (Das and Teng, 2002; Gulati, Nohria and Zaheer, 2000) appear in the light of our study as overrated. Their relative influence on competitive advantage is quite small. Nevertheless, our findings suggest that while the role of some social capital facets is more acute, the separation of social capital into components is an abstract idea. In other words, our data suggest that structural social capital, coupled with social norms, works better than without them.

Fourthly, we provide evidence that the best fit model linking social capital facets to competitive advantage is linear. While a detailed study of social capital facets separately displays a non-linear relationship, the social capital taken together displays a linear relationship. Contrary to prior studies advocating the need to balance its accumulation and use in order to avoid some negative effects, we found that social capital needs to be maximized indefinitely. This suggests that managerial attention should not be dispersed onto a balancing effort, but focused on accumulation and exploitation just as for other types of capital (Lin, 2001).

CONCLUSIONS AND LIMITATIONS

The analysis of managerial literature on social capital has allowed us to extract the four key facets of the social capital of the organization. We have found support for the role of social capital in achieving competitive advantage. Social structures, described by social ties, relationships and networks, do have a positive relationship with competitive advantage. Another facet of the social capital of the organization displaying a significant interdependence with competitive advantage are social norms, including the obligations of the network members, benefits, loyalty, and organizational culture. Our evidence suggests firstly, the importance of the structural dimension, and secondly, the dimension of the social capital relationships. Moderate correlation occurred between processes and attitudes and competitive advantage.

The contribution of our study to the literature is fourfold. Firstly, we have further developed the concept of social capital as a composite, or umbrella category. Its origins refer to structures and the content of linkages as proposed in sociology, but management literature has developed significantly the original scope. As a result, a number of facets have been studied, contributing both to the refinement and fragmentation of our understanding. We propose to separate the social capital concept into four facets: structural, processes, norms, and attitudes. Secondly, the management literature has emphasized in the last two decades the role of trust. Yet we provide evidence that the role of trust is significantly less relevant than that played by structural social capital in achieving competitive advantage. Thirdly, our study supports the view that there is a linear relationship between a firm's social capital and its competitive advantage. Interestingly, our data support the paradoxical impact of social capital facets on competitive advantage. Therefore an interplay between social capital facets still needs to be explored to see how non-linear relationships turn out to add up into a linear one. Fourthly, the high regression fixed coefficient and R^2 value suggest that social capital plays a role, but it cannot be held as the sole or solely significant source of competitive advantage. Other variables need to be taken into account, such as industry structure, resource advantages and so on.

Nevertheless, we are aware of some limitations of our study, connected with the method adopted. Firstly, the study is not representative as our data describe a sample in the Polish packaging industry. By restricting our empirical setting to a single industry, we are aware that some of the effects we have found might be industry specific, however they fall beyond the

scope of our study. For instance, factors connected with its rapid growth might influence our findings. Further studies in other empirical settings are therefore required to confirm our results. Secondly, our respondents are top managers focused on market performance, which might bias their subjective assessment by attributing an overly optimistic importance to social relationships, as well as the firm's competitive advantage. Thirdly, despite a satisfactory response rate, our sample has a double digit size. Larger samples might yield both more statistically powerful findings, and allow the use of some more sophisticated data analysis techniques.

To sum up, our study shows evidence that the social capital of the organization provides a network of social relationships based on trust, mutual care and social standards serving the economic development of the organization, which benefits its stakeholders.

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