How do We Know Who Knows Who: An Empirical Assessment of Social Capital Usage for Turkish and Greek Cypriot Steel Manufacturing Industry Managers[*]

Kimin Kimi Bildiğini Nasıl Biliriz: Kıbrıslı Türk ve Rum Çelik Sanayi Yöneticileri İçin Sosyal Sermaye Kullanımının Ampirik Bir Değerlendirmesi

Mustafa Sağsan[**] ve Nazım Adem Karasalih[***]

Abstract

This paper is concerned with the social capital measurement of Turkish Cypriot and Greek Cypriot steel-manufacturing industry managers studied through the social network analysis method. The aim of this research undertaking is to find out the social capital usage of managers constructed on a relational basis. The comparative analysis between the two communities is conducted to understand to what extent Cypriot managers employed in steel-manufacturing companies fill in structural holes occurring in the Cypriot community. The epistemological dimension of this study is based on the anti-positivist paradigm.

For this reason, the methodology refers to the quantitative analysis. 10 Turkish Cypriot and 10 Greek Cypriot managers are involved in this study by using the focus group techniques in the context of quantitative methodology. The brief definition on social capital is given to the respondents and they were asked to mark their social relationhip between 0, which represents no relationship, to 10, which refers to the strongest level of relationship. After gathering data, the UCINET software program was used by mapping out the social relationship among the managers. The evidence accumulated confirmed that social capital has played a vital role in the creation of new social networks in the case of Cyprus. The analysis has highlighted the inadequacy of the social interactions between the two communities, likely stemming from the political and economic issues and challenges of the Island.

Keywords: Social network analysis; relational social capital; structural holes; social embeddedness; brokerage roles, Turkish Cypriots; Greek Cypriots; island economies.

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[**]*Assoc. Prof. Dr., Near East University Department of Innovation and Knowledge Management; Act. Director, NEU Graduate School of Social Sciences. email: mustafa.sagsan@neu.edu.tr*

Doç. Dr. Yakın Doğu Üniversitesi İnovasyon ve Bilgi Yönetimi Bölümü; Müdür Vekili, YDÜ Sosyal Bilimler Enstitüsü.

[***]*Lecturer: Near East University. Department of Innovation and Knowledge Management; CEO Karsal Industrial Kitchen Company. e-mail: nazimadem.karasalih@neu.edu.tr*

Öğr. Gör. Yakın Doğu Üniversitesi İnovasyon ve Bilgi Yönetimi Bölümü; CEO Karsal Endüstriyel Mutfak Ltd.

Öz

Bu çalışma özetle Kıbrıslı Türk ve Kıbrıslı Rum yöneticilerin sosyal ağ analizi metoduyla sosyal sermaye kullanımlarının ölçümlenmesiyle ilgilidir. Bu araştırmanın amacı yöneticilerin aralarında oluşan ilişkisel sosyal sermayenin kullanımını bulmaktır.

Çelik sektöründe hizmet vermekte olan Kıbrıslı yöneticilerin Kıbrıs toplumu içerisinde oluşan yapısal boşlukları ne denli doldurabildiğini ölçebilmek adına her iki toplum arasında bir karşılaştırma analizi yürütülmüştür. Bu çalışmanın epistemolojik boyutu anti pozitivist bir yaklaşım üzerine dayanmaktadır.

Bu nedenle, çalışma yöntemi kantitatif analize dayanmaktadır. Araştırmada 10 Kıbrıslı Türk ve 10 Kıbrıslı Rum yönetici bir araya getirilerek odak grup tekniğiyle veriler toplanmıştır. Kendilerine sosyal sermaye ile ilgili bilgi verildikten sonra birbirlerini ne kadar iyi tanıdığı sorulmuştur. Aralarında hiç tanıdıklık yok ise 0, birbirleriyle çok iyi tanıdıklık düzeyine sahipseler 10 puan verilmiştir. Daha sonra bu veriler Ucinet programına girilerek sosyal ağ ilişkilerinin haritası çıkartılmıştır. Kıbrıs örneğinde Sosyal Sermaye yeni sosyal ağların oluşumunda çok önemli rol oynamıştır. Analizlere bakıldığı zaman her iki toplum arasındaki sosyal etkileşimin eksikliği görülmüştür. Bu durumun Kıbrıs adasının politik ve ekonomik durumundan oluşmuş olabileceği öngörülmektedir. Sonuç olarak her iki toplumun çelik sektöründe hizmet veren yöneticilerinin ilişkisel sermayelerini artırmalarının toplumda daha sağlıklı sosyal sermaye kullanımına ve yeni sosyal ağların oluşumuyla ekonomik ve politik sorunlarında çözümüne ulaşılabileceği tespit edilmiştir.

Anahtar Sözcükler: *Sosyal ağ analizi; ilişkisel sosyal sermaye; yapısal boşluklar; sosyal yerleşiklik; aracılık rolleri; Kıbrıslı Türkler, Kıbrıslı Rumlar; ada ekonomileri.*

Introduction

This study aims to explore relational Social Capital (SC) amongst Turkish and Greek Cypriot managers (TCMs-GCMs) who serve in the steel-manufacturing sector in Cyprus. In order to provide a valid and reliable analysis in this piece of research, the social network analysis (SNA) method is used to evaluate the SC among the Cypriot managers. Overall, it is important to know about SC theory and its dimensions in social sciences in order to understand the theory in depth (Burt, 1992, 2004, 2005; Nahapiet and Ghoshal, 1998; Kilduff and Brass, 2010). In today's business world, high-level managers look for pragmatic and opportunistic solutions to solve problems in organisations. Therefore, many studies have been published on socio-economic phenomena where SC plays an important role for managers' communication (Rogers and Kincaid, 1981; La Porta, Rafael, Lopez-de-Silanes, Shleifer, and Vishny, 1997; Kennedy, Kawachi, Prothrow-Stith, Lochner and Gupta 1998; Putnam, 2000; Pharr and Putnam, 2000).

There are three types of SC; bonding, bridging and linking which are crucial for the development of social relationships in an economy (Putnam, 2000), and three SC dimensions; structural, as it includes social interaction among members (used to get a job, to obtain requested information and access to specific sources), cognitive which is about shared codes and the ways of navigating in a social system and relational that refers to assets which are rooted in relationships (such as trust and trust worthiness) (Fukuyama, 1995; Nahapiet and Ghoshal, 1997; Inkpen and Tsang, 2005; Moran, 2005). These three dimensions of social capital identify the ways of social relationship within the group and communities. They could also be expanded at the national and international levels in order to analyze societal and cultural aspect of a nation.

This study explores the relational dimension of SC, which helps us to understand how the TCMs and GCMs form and use social relationships with regard to trust and trustworthiness. The impact of the economic, political and social values of the Cypriot community on the social connections of TCMs and GCMs is also investigated. Thus, the idea of measuring the relational

SC has shed a new light on the improvement of the social relationships of Cypriot managers. In small island economies, it has been found that the steel-manufacturing sector develops strong linkages with the population and culture, and grows in parallel with technological advancement, which increases economic value positively (Rowley, Behrens and Krachardt, 2000; Barr, 2000; Lawson, Tyler and Cousins, 2008; Jimenez, Jimenez, Santamaria, and Vargas, 2011; Echebarria and Barrutia, 2013; Gonzalez, Claro and Palmatier, 2014). Therefore, it is assumed that the steel-manufacturing sector is important for the Cypriot community, as it represents social, economic and political values (Ferris and Treadway, 2012).

Moreover, Granovetter (2005) argues that, in a community, there are three main reasons that the social structure affects economic outcomes in connection with social networks. The first factor is the quality of information, which helps community members to undertake the economic action in a correct manner. Thus, Sağsan, Yücel and Sözen (2010) found that the degree of social embeddedness, creation of new networks, formation of weak or strong ties within the network and structural holes are all related to the quality of information obtaining from the sector. Secondly, reward and punishment are vital to creating better economic arrangements. Finally, trust creates confidence among actors and provides better flow of social relationships.

Also, Sargut (2006) notes that social networks need to be considered carefully because it adds vital value to social and economic developments. Of relevance too is the value of the social network as a means to attaining better norms and values with regard to political issues (Woolcock and Narayan, 2000). There are a few academic articles on the steel-manufacturing sector of Cyprus. For instance, Vryonides (2009) relates to the educational subjects whilst Skanavis and Sarri (2002) represent environmental issues in their study and Sirin (2012) discusses the role of identity in negotiation and decision-making. Hence, there are no comparable academic publications on social network studies regarding the case of Cyprus. Therefore, the study reported here is an attempt to enrich a current piece of research by drawing upon the latest findings and observations in the social sciences in this specific area.

For the purposes of this study, Cypriot managers from the steel-manufacturing sector who have common social relationships are identified and their SC usage is also examined through SNA. This study is based on bi-communal relations as well, as some managers know each other from the Corporate Social Responsibility (CSR) training, which was conducted in 2008 in the USA.

This paper aims to analyze and convey the meaning of *'Social Capital Theory'* (SCT) (Tsai and Ghoshal, 1998; Scull, 2001; Bontis and Fitz-enz, 2002; Sargut, 2006; Ahlerup, Olsson and Yanagizawa, 2009) and create awareness on the importance of forming stronger social ties in the social network for the case of Cyprus (Granovetter, 1973; Burt 1997; Burt, Hogarth and Michaud, 2000; Uzzi, 1997; Putnam, 2000). Moreover, trust is selected as a primary analytical concept in elucidating the fundamental reason behind the formation of social gaps among the individuals in the Cypriot community referring to the fact that the Island is divided into two parts after war in 1974. In Cyprus, there are two separate governments and therefore the political systems are different for both sides, which may be considered a cause of the possible social gaps. *'Structural Holes Theory'* (SHT) on the one hand consists of strong and weak ties among individuals (Granovetter, 1983; Burt, 1992; Adler, 2001, 2002; Molina and Teresa, 2010; Sözen, 2012), on the other hand, the *'Concept of Social Embeddedness'* (CSE) shows the social interaction in any social network (Uzzi, 1997; Swedberg and Granovetter, 1985; Granovetter, 1985; Granovetter, 1992; Xiao and Tsui, 2007; Sözen, Basim ve Hazır, 2009).

The social network analysis method is explained thoroughly to provide a better understanding of the research methodology relied on. The SNA method has been used to measure social capital between the TCMs and GCMs in Cyprus (Bowey and Easton, 2007). This is a unique research method for evaluating social networks for individuals, groups or organisations, which has also become popular and appreciated by many research academics,

practitioners and students (Borgatti, Everett and Freeman, 2002; Sağsan et al., 2010; Sözen, 2012; Eisenberg, Johnson and Pieterson, 2015; Kırkbeşoğlu and Sargut, 2015). The brokerage roles of managers are considered, as it is important to find out who is the most active actor in managing 'information transfer' in a social network (Burt, 2005, 2007; Sağsan et al., 2010; Gülle, 2015). It is found that the SNA method is effective in measuring social networks in micro level economies (Borgatti et al., 2002).

Finally, this study will closely examine the relational dimension of social capital among the Cypriot managers. However, structural and cognitive dimensions are also known as possible factors that will cause problems in the networks. The economy of Cyprus is based on four main sectors: tourism, financial services, agriculture and real estate and the GDP is around $ 24.03 billion (2011 est.), which serves to illustrate the importance of economic and social linkages between the two communities (CIA, 2012).

Theoretical Background on Social Capital

In this section, social capital theory, social capital types and its dimensions, structural holes theory and social embeddedness theory will be briefly explained. Social capital (SC) has been defined as trusting relationships that occur among individuals, groups or organisations in a society (Tsai and Ghoshal, 1998; Scull, 2001; Sargut, 2006; Ahlerup et. al., 2009). Scholars argue that SC differs from other key concepts in sociological inquiry in which it is deemed to be important to consider social networks theory in order to find possible solutions to support social needs in a community (Granovetter, 1973; Burt, 1997; Uzzi, 1997).

It is emphasised by Putnam (1993, p. 2000) that SC has become an approach that facilitates and develops social networks with trust, norms, and network elements. Adler and Kwon (2002) also note that SC is not only about social network improvement but also related to the structure of social relationships. It is argued that SC plays the role of glue that holds community together and is inevitable for better economic growth in a society (Bourdieu and Wacquant, 1992; Serageldin, 1999; Bontis and Fitz-enz, 2002). Thereby, SC can be seen as a new concept for many academics, practitioners and students for further studies in social sciences (Cope et al., 2007; Lin, 2000; Harper and Kelly, 2003).

Fukuyama (1997) agrees on the explanations of social capital while he disagrees that all common norms and values can form social capital by themselves in that some of these norms and values can be used in wrong or negative direction. Robinson, James, Verdier and Thierry (2002:1) suggest that SC can also be similar to the physical capital since such features as replacement, durability and transformation exist in social networks as well.

It is important that SC can be examined by formal and informal ways. In other words, personal or business relationships and local institutions can be examples for forming social relationships in different ways in a community (ABS, 2000; Porter and Powell, 2006; Sözen and Kırkbeşoğlu, 2010, p. 193; Sözen, 2012). Putnam (2000) emphasises that there are different social networks as well as dimensions to consider. Therefore, there are three types of SC; 'bonding, bridging, and linking' to be taken into consideration while measuring SC in a society.

According to Putnam (2000, p. 23)

- Bonding social capital: explains the strong relationships between people in a society, for example; family relationships.

- Bridging social capital: explains the weak or constant relationships between people, for example; business associates or companies.

- Linking social capital: explains the relationships between managers and employees in an organisation.

Moran (2005) observes that SC can be mostly used by professionals, who may find better jobs or obtain compensation and higher skills. O'Neill and Adya, (2007) argue that professionals are "autonomous people who enjoy occupational advancement and mobility and resist a command and control culture (pp. 24)."

It appears that individuals will gain numerous advantages if they work together with others. Therefore, relational SC offers as an element that can be relied on for building up stronger social networks within a community (Coleman, 1988; Gulati, 1998; Sargut, 2006; Sözen and Kırkbeşoğlu, 2010, p. 199). Moreover, there are five fundamental factors; 'trust, cooperation, reciprocity, rules and regulation systems' that serve to increase the level of integrity in a society (Fukuyama, 1992; Portes and Sensenbrenner, 1993; Tsai and Ghoshal, 1998; Cohen and Prusak, 2001 cited in López-Fernandez and Sánchez-Gardey, 2010). Meanwhile, it is necessary to avoid the negative effects of trust on the inter-firm knowledge transfer and creation, which may affect the whole social network (Gulati, 1998; Gulati, Nohria and Zaheer, 2000; Burt et al., 2000; Inkpen and Tsang, 2005; Burt, 2007).

Community development is significantly related to the learning and obtaining of a wide range of social capital. In other words, people who have developed embedded ties during social participation, engagement or involvement can help the community transfer information easily (Narayan, 1997; Nahapiet and Ghoshal, 1998; Ozen and Aslan, 2006). Woolcock and Narayan (2000) argue that social capital is hidden in social structures and linked to the society's needs and wants.

The Structural Holes Theory (SHT) has as its focus strong and weak ties that occur in a social network. Burt (1992, 2005) stresses that weak ties do not only refer to weak relations among actors (individuals, groups or organisations) but also provide new information by bridging new social networks. Granovetter (1983) argues that new information and ideas are more easily disseminated via weak ties in structural holes. Besides, Sözen (2012, p. 507) stresses that the central player can fill the structural holes by communicating new information to the others in social network. The most important implications of SHT rely on gathering the new information into the social network. For this reason, an actor who has a weak tie within the networks can bring new information into the social network. It could be used for filling the gaps among the actors within a social network. The new information, which is brought by any member of the social network such as manager who has a weak tie, makes richer the structure of the social network.

Trust has been taken as an independent variable in the designing this research and accordingly trust can be defined as a major issue when trying to provide better economic actions in a society. Adler (2001) defines trust as "the subjective probability with which an actor assesses that another actor or group of actors will perform a particular action, both before she or he can monitor such action (or independently of his or her capacity ever to be able to monitor it) and in a context in which it affects his or her own action (p. 217)".

In a social network, there can be strong or weak relationships, which cause negative effects on the development of social groups or organisations (Molina, and Teresa, 2010). Sözen (2012, p. 491) underlines that there is a debate on the types of the ties that are more essential for individuals in a social network.

The Concept of Social Embeddedness (CSE) is based on economic actions that actors form in a society (Uzzi, 1997; Swedberg and Granovetter, 1985; Xiao and Tsui, 2007). According to Polanyi (1992), social ties in an economy is important and he defines it as "one of the remarkable findings of the recent historical and anthropological studies has shown that human being's economic life is embedded in on-going social ties. Individuals don't attempt to protect material elements related to his or her self interest, they try to protect their social standing in society".

Social Network Analysis Literature

Social Network Analysis (SNA) derives from the social capital theory. The Social Network Analysis (SNA) method has been used to investigate the degree of social intensiveness between individuals, groups or organizations in a social network. The method provides an opportunity to analyse various aspects of social networks such as the strength of social ties (strong/weak), business networking and social interaction or family relationship (Sözen et. al., 2009). Moreover, the SNA method can be implemented in a newly developed organisational setting to provide adaptation to sociological changes in a global context (Monge and Contractor, 2001; Baker, and Faulkner, 2002).

The SNA graphic does not have much value if not used thoroughly as part of a wider SNA methodological approach considering the quality of the social network and based on parameters and measure tools represented by the SNA method. Thereby, it is important to be familiar with related parameters and tools to be able to understand social networks better (Kırkbeşoğlu and Sargut, 2015). The SNA is a type of measurement tool, which is divided into two levels: network level and actor level. The network level helps us to analyze the density, transitivity, and clustering coefficient within the network. The actor level includes degree, centrality, strong ties, weak ties, closeness, betweenness, and brokerage roles. Practically, the dimension of social relationships among the actors could be identified by using SNA methodology.

In addition, Monge and Contractor (2001) identified three important measurement criterions in exploring actors' position in the social network,

(1) actors' position in a social network;

(2) quality of network relationship formed between actors;

(3) other criteria related to the general quality of the network.

These three crucial points are helpful in understanding the power of relations and communication channels among actors within such social environments.

Many reasons for this can be power struggles, privacy issues or other special conditions. Therefore, it is essential to prevent economic depression before any problems arise among the actors (Bowey and Easton, 2007). Many researchers note that social capital of individuals support them to obtain high level of jobs and that affects occupational achievements (Bueno et al., 2004 cited in Sözen, 2012). According to Gargiulo and Benassi (2000), "organizations and individuals that have numerous network ties can use these connections to transfer knowledge, reach resources and influence others in their environment (p. 184)."

Jablin and Putnam (2001) describe the tools: density, diameter and node (links) closeness can be used to measure social network intensiveness among the actors. Moreover, these measurement techniques provide advantages in testing hypotheses in a social network research study. Inherent in the analysis to be undertaken is the level of degree, which can be divided into two parts, *Indegree* and *Outdegree* and be treated as asymmetric. Indegree represents the total number of direct ties of an actor to the others (incoming links) whereas outdegree represents the total number of direct ties from the central actor to the others (outgoing links). The *betweenness* is known as the brokerage role of an actor or the degree of mediator, which helps us understand the roles of actors in a social network (Jablin and Putnam, 2001; Sözen and Kırkbeşoğlu, 2010, p. 200).

Research Methodology

The research method applied in the present study is identified non-statistical and mathematical. In this study, a greater understanding is attained by analysing graphs and reports that represent the 'elementary grasp of graph theoretic language' (Borgatti and Everett, 1989; Loosemore, 1998; Sargut, 2006; Sözen, 2012; Sözen et al., 2012). The epistemological dimension of this

study is based on anti-positivist paradigm. For this reason, the methodology refers to the quantitative analysis (Emirbayer and Goodwin, 1994; Monge and Contractor, 2001; Parkhe, Wasserman and Rallston, 2006; Dhanaraj and Parkhe, 2006; Sözen, 2012). The SNA method is used to conduct a comparative analysis of the social capital usage between the Turkish and Greek Cypriot communities. It was vital to use the SNA method in this investigation because it has been determined as the most efficient tool to be used by academics in this type of research and inquiry within the social sciences (Emirbayer and Goodwin, 1994; Baker 1990; Baker and Faulkner, 2002; Kırkbeşoğlu and Sargut, 2015).

In order to implement the SNA method successfully, Cypriot managers with common goals in a social network were selected. In other words, managers were selected to be from within the same sector, which is steel manufacturing. Underlying the selection of the steel-manufacturing sector was its suitability in terms of examining the social structure, in other words, the possibility of determining whether structural gaps occurred between structural dimension of the two communities. The SNA method may be applicable to other sectors such as education, banking or services. The steel-manufacturing sector is relied on in Cyprus case so as to examine why managers do not attempt to fill structural holes and help each other to increase economic linkages. The aim is to create awareness on managers about how to gain higher trust in the Cypriot community by using social capital effectively.

The main research question can be summarized as *'To what extent does the relational social capital used by the Turkish and Greek Cypriot managers fill structural holes that occur in the Cypriot community?'* and related sub-questions are *'How often do Turkish and Greek Cypriot Managers (TCMs & GCMs) attempt to renew their social relationship?'* and *'Are TCMs and GCMs in the steel-manufacturing sector using their SC effectively?'.*

Research Design and Sampling

The research design will be explained using a two-tiered model. The first stage is the ***criterion table*** and the second is the ***selection of actors***. The criterion table indicates managers who are coming from different communities in Cyprus. Thus, it may be named in two ways, *'Cyprus Turkish'* and *'Cyprus Greek'* communities. In order to investigate social capital usage between these two communities, the following table has been developed for use during process of hypotheses improvement.

Table 1.
The dependent and independent variables

Dependent Variables	Independent Variables
Turkish Cypriot Managers (TCMs) Greek Cypriot Managers (GCMs)	▪ Social capital usage; relational dimension, trust ▪ The degree of betweenness ▪ The level of weak ties ▪ The homogenous network creation ▪ The density of network creation

After identifying the variables, research design stages will be explained in detail. Stage 1 will describe the criterion table, i.e. how managers are determined and in what sector they serve. Stage 2 explains how many actors are selected and analyzed in this study.

At stage 1, Table 1 was taken into consideration for Cypriot managers; the sector they serve in and the scope of the research in the Cypriot community. A review of literature on SC by the researcher suggests that there is a need for further study on SC improvement in small island economies. Cyprus is the third biggest Island after Sicilia and Sardinia in the Mediterranean Sea, which has been divided into two parts after the war in 1974. The total population of Cyprus is approximately 1,138,071, which means there is potential to have efficient SC to make necessary expansions on business networks (CIA 2012).

Questions have been proposed on the basis of the social connections of TCMs and GCMs and the mutual agreements among them are also considered.

Table 2.
Classification of Communities, Sector and Scope

Groups of Communities	Sector	Scope
Turkish Cypriot Managers (TCMs)	Steel Manufacturing	In order to find how they form social ties between each other.
Greek Cypriot Managers (TCMs)	Steel Manufacturing	In order to find how they form social ties between each other.
Research Scope	In the steel-manufacturing sector, the analytic focus is on how the two communities are creating social ties and building social relationships mutually in order to expand their social capital.	

TCMs and GCMs have recently started serving in the steel-manufacturing sector in Cyprus. The steel-manufacturing sector has become one of the major sources of income for small island economies around the world (Rowley, Behrens and Krachardt, 2000; Lungwitz and Campagna, 2006; Jimenez et al., 2011). However, the steel-manufacturing sector is a very recent area of industrial development in Cyprus. Thus, it follows that this sector is also new area to be researched in social sciences.

In this respect, there is an opportunity to compare two communities and how they attempt to use their social capital (SC) to enrich their social networking facilities in their business processes. As it is known, there are many opportunities, potentials and possible contributions to be grasped including the following:

- Managers will have better flow of information,
- Managers will be more effective in supply chain management,
- GCMs will obtain new information from TCMs,
- Both sides will communicate easily and smoothly,
- The cost of material will be lower because the transportation and customs will be very cheap between two communities,
- There will be better buy and sell conditions for both TCMs and GCMs,
- Lower the political conflict between communities, the more peaceful environment will exist on the Island.

In the first stage, the criterion of the research design was worked out and the second stage indicates twenty Cypriot managers. Stage two divides managers into two; ten TCMs and ten GCMs. Steel manufacturing was selected to be the focal sector in this research. The SNA has been chosen as a research method.

Hypotheses

In order to test the SC between the two communities, it is necessary to look at how they networked socially and use their SC. Hypotheses are developed as indicated below,

H1. The degree of betweenness in the Cyprus Turkish Community is higher than in the Greek Cypriot Community.

H2. The level of weak ties in the Cyprus Greek community is more productive than in the Cyprus Turkish community.

H3. The extent of homogeneous network creation in the Cyprus Turkish community is expected to be greater than that of the Cyprus Greek community.

H4. The density of network creation in the Cyprus Turkish community is expected to be higher than that observed for the Cyprus Greek community.

Data Collection

The primary data is collected through an empirical research exercise by looking at the social interaction between Turkish and Greek Cypriot managers (TCMs-GCMs) who have been determined as dependent variables and are contacted in connection with the Cyprus Turkish Chamber of Industry and the Cyprus Chamber of Commerce and Industry. In general, all data is based on primary resources with the SNA method being used to compare data sets for the purpose of identifying the two communities' social intensiveness for business network creation. In this research activity, the main objective is to conduct a focus group to collect primary data on managers' social interaction and collect relevant data according to their social relationships. To understand their use of social capital (SC), research questions were developed after reviewing the literature on SC. The steel-manufacturing sector is selected as a fundamental research area in the Cypriot community.

Two workshops were organised to collect data from managers. First, a workshop for GCMs was held at the Fulbright Center in Nicosia. The second workshop was held for TCMs at the Cyprus Turkish Chamber of Industry in Nicosia. In each workshop, a short meeting was done to get managers know each other and to be more transparent whilst rating their relationships currently in the workshop. Each workshop took roughly 1 hour where 15 minutes of this duration was a brief presentation on 'social capital theory' with a supportive short video. Following the presentation, participants were provided questionnaire forms and asked to fill them in. The data collection was effected during two workshops and data was entered into a SNA software package called UCINET 6 (Borgatti et al. 2002). In order to obtain results on such parameters as degree, betweenness, closeness, network centrality and structural holes, UCINET software was used.

Coding Names of the Managers and Data Entry

In this research study, names of the managers have been coded in order to protect their privacy. The coded names of the TCMs and the GCMs can be seen as below.

Table 3.
Data Entry Into SNA Matrix

Actors	H.R	D.T	S.S	C.T	H.N	F.S	E.S	C.A	S.K	I.D	D.P	V.M	Y.A	A.K	Z.M	A.Z	C.K	A.M	C.O.K	M.V
H.R	■	1	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0
D.T	7	■	7	10	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S.S	8	8	■	8	8	1	0	9	0	0	0	0	0	0	0	0	0	0	0	0
C.T	6	10	6	■	6	0	0	5	0	0	0	0	0	0	0	0	0	0	6	6
H.N	8	7	8	8	■	0	0	0	7	5	0	0	0	0	0	0	0	0	0	0
F.S	3	0	0	0	0	■	10	0	10	10	3	0	0	0	0	0	0	0	0	0
E.S	0	0	0	0	0	10	■	0	8	5	0	0	0	0	0	0	0	0	0	0
C.A	0	0	4	0	0	0	0	■	0	0	0	0	0	0	0	0	0	0	0	0
S.K	3	0	3	0	5	10	8	0	■	10	5	10	2	0	0	0	5	0	0	0
I.D	1	0	0	1	0	10	6	2	10	■	2	4	10	1	0	0	0	2	0	0
D.P	0	0	0	0	0	3	0	0	3	3	■	5	5	0	0	0	0	0	0	0
V.M	0	0	0	0	0	0	0	0	10	10	1	■	2	0	1	0	0	0	0	0
Y.A	0	0	0	0	0	0	0	0	8	8	2	2	■	8	5	5	5	5	0	0
A.K	0	0	0	0	0	0	0	0	0	0	0	0	8	■	0	0	3	0	0	0
Z.M	0	0	0	0	0	0	0	0	0	0	0	0	8	0	■	0	5	0	0	0
A.Z	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	■	0	0	0	0
C.K	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	■	0	0	0
A.M	0	0	0	0	0	0	0	0	0	0	0	0	5	2	5	0	5	■	0	0
C.O.K	6	6	6	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	■	6
M.V	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	■

*TCMs: H.R, D.T, S.S, C.T, H.N, F.S, E.S, C.A, S.K, I.D.
 GCMs: D.P, V.M, Y.A, A.K, Z.M, A.Z, C.K, A.M, C.O.K, M.V.

In order to generate results, the SNA matrix can be created as above by entering details on social relationships weighted by managers. Thereafter, results may be taken into consideration to interpret and test hypotheses as stated before.

The following part includes findings and discussion on results obtained from the SNA method application. It is expected that the data and results presented here will serve to guide future studies in social sciences. However, this research will only look at social capital between managers in order to understand their awareness on their social values in the Cypriot community.

Findings and Discussions

As stated in Table 2, all managers rated their relationship among themselves and these data have been entered into SNA matrix. Consequently, the method has generated a range of results sufficiently extensive to show the changes between the two communities. Hypotheses were enhanced in order to test how managers use their social capital within the steel-manufacturing sector. As it is mentioned before, a relational dimension of social capital was proposed to be the independent variable in order to measure and understand the social embeddedness between TCMs and GCMs who operate in the steel-manufacturing sector in Cyprus. During the study, the aim was to ascertain if there is any difference in creating new social networks or achieving business objectives such as improved flow of information and increased trade between TCMs and GCMs. This aroused curiosity in the researcher because there were several factors that limited social engagement opportunities such as the political and economic division of the Cypriot community.

In Cyprus, people used to share common culture but not the religion. Therefore, this has created a potential research question to be considered: how do managers help each other in the Cypriot community? Table 1 considers criteria related to actors illustrating Classification of Communities along with Sector and Scope. It is significant to be aware of measures indicated as degree, betweenness and closeness. TCMs and GCMs are considered in this context to find out how they form closer relationships among themselves in Cyprus. In micro level countries, social engagement has been considered a vital activity for better economic actions as mentioned below;

- The wealth of the economic system,
- The effectiveness of production facilities,
- More foreign investors available to invest in the island,
- Better supply chain management among actors.

It means that the more social embeddedness they have, the greater the economic welfare of the community (Granovetter, 1973; Ahlin, Drnovsek and Hisrich, 2014).

Therefore, Figure 1 shows twenty managers who are not only sharing a common culture but also living in the same country. Thus, results are expected to be positive for each community in terms of forming social relationships in business operations. On the other hand, it is not expected to see that high network intensity in GCMs' social engagement, because the graphical map shows that they are not close enough to each other to do business via using their SC. In other words, GCMs seem to use SC when they need to achieve objectives. This is not a good way of enriching SC in a community. Figure 1 also supports H1, because TCMs seem to adapt by forming and developing social ties better than the GCMs in the Cypriot community. This can be easily understood from the number of TCMs located in the centre of the social network map.

In order to get a clearer understanding of who plays brokerage roles between the two communities. The names of actors were coded in Table 2. There are normally two communities as mentioned, Turkish and Greek, however the research is designed to create another subgrouping to see if there are still more hidden connections among the managers.

The subgrouping will be formed using the number of participants that have attended. It is interesting to find that there are few managers from both communities who have an experience from previous social engagement. Those managers who have met before are involved in a training program on CSR. Therefore, we can identify those managers as 'H.N,

H.R, C.T, S.S, D.T (TCMs) and C.O.K, M.V (GCMs)'. This observation justifies and provides a reason for building a new network. The H1 is confirmed through this analysis and it shows us the number of TCMs involving in a social engagement is higher than the GCMs.
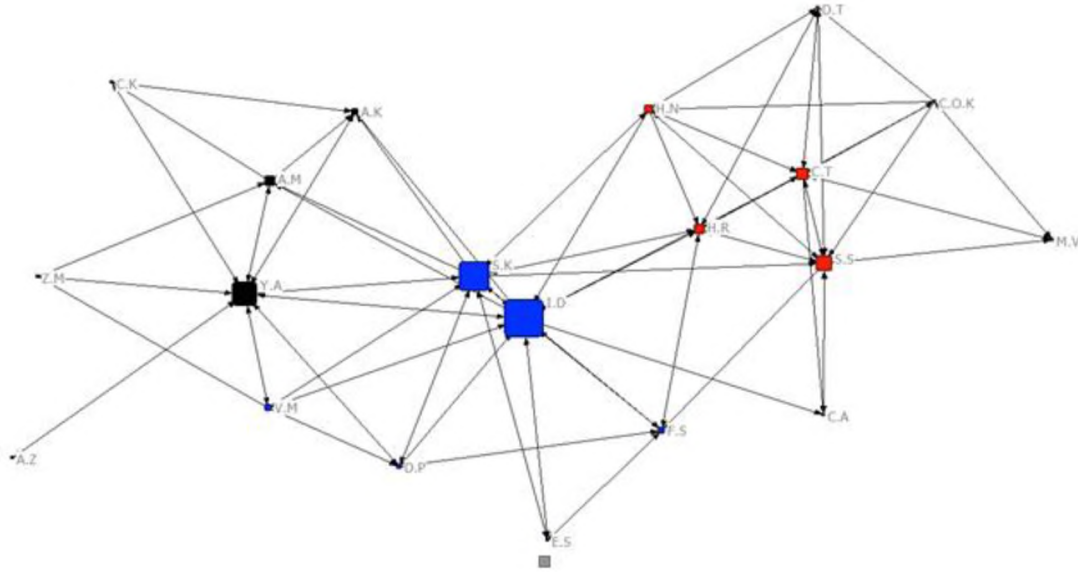

Figure 1. Betweenness (brokerage role) analysis for TCMs and GCMs[**]

Moreover, there are two TCMs who play a brokerage role in the Cypriot community. These are S.K and I.D who transfer the information to the others. For example, it is observed that there is only Y.A from GCMs who has been actively involved in information exchange among the other members of this informal group. This result also proves that the betweenness (brokerage role) is more active in the Turkish Cypriot community (TCCs) with regard to the Greek Cypriot community (GCCs). There is a structural hole between the TCCs and the GCCs, and this gap is being filled by the three actors; S.K, I.D and Y.A. There will be several reasons for the observed difference; however, one of these can be related to the competition between actors in this network. The following table also shows the betweenness score of managers in an order.

The tabulated results show managers ranked according to the degree of betweenness. If we look at Y.A, GCM, he seems to have the highest betweenness score but it is not enough to say that he is the only person who provides information between the two communities. Thereby, TCMs, S.K and I.D appear to be more active in filling the structural holes. Hence, it can be said that Y.A plays a brokerage role for only his own community. It is essential to point out that Y.A has strong ties with S.K and I.D, which means that the information transfer is good from one community to the other.

On the other hand, the strength of weak ties between TCMs and GCMs stands out as an important factor in changing the strategy of information transfer. The following table contains statistical results on mean, standard deviation that again proves H1.

[**] There are three sub-groupings in the Cypriot social network shaded in black (left), blue (center) and red (right).

Table 4.
Freeman Betweenness Centrality Measurement: Non-symmetric

		1 Betweenness	2 nBetweenness
13	**Y.A**	**109.013**	**31.875**
10	**I.D**	**90.221**	**26.381**
9	**S.K**	**80.038**	**23.403**
3	S.S	43.827	12.815
1	H.R	34.321	10.035
4	C.T	30.645	8.96
5	H.N	27.505	8.042
6	F.S	18.624	5.446
18	A.M	8.744	2.557
11	D.P	5.157	1.508
12	V.M	4.583	1.34
14	A.K	3.91	1.143
19	C.O.K	3.495	1.022
20	M.V	1.5	0.439
2	D.T	0.917	0.268
8	C.A	0.25	0.073
15	Z.M	0.25	0.073
7	E.S	0	0
17	C.K	0	0
16	A.Z	0	0

Table 5.
Descriptive statistics for each measure

		1 Betweenness	2 nBetweenness
1	Mean	23.150	6.769
2	Std Dev	32.409	9.476
3	Sum	463.000	135.380
4	Variance	1050.374	89.803
5	SSQ	31725.930	2712.452
6	MCSSQ	21007.480	1796.064
7	Euc Norm	178.118	52.081
8	Minimum	0.000	0.000
9	Maximum	109.013	31.875
10	N of Obs	20.000	20.000

Network Centralisation Index= 26.43%

Thus, the result indicates that there is a normal change in mean and standard deviation for the betweenness measure of Cypriot community. The network centralization index is shown as 26.43%, and found to be equal in order to change social network formation. In other words, network centralization can be easier by TCMs and GCMs with more social engagement in the near future. This can be supported by managers' tendency to do more common actions. In addition, it is observed that managers' know-how and awareness on having better social capital will add better value for others who are interested in social network creation.

In order to test H2, it is important to be aware of the strength of weak ties which was conceptualized by Granovetter (1973). Granovetter argues that it is important to consider weak ties in a social network because they may create new information that can help social

engagement be easier and faster. Within the Cypriot community for both sides, it has been analysed how managers are using weak ties effectively. The observation is supported that the GCMs are more productive in using their weak ties. Thus, it is observed that GCMs have more productive ties in forming social networks and transferring information among themselves. However, this may cause a major problem such as delays in submitting applications for a job. It is also seen that GCMs have no need to develop new social connections both to develop their business and to transfer information in their business. This can also be seen as one of the economic or politic problems stemming from the existence of weak ties in the GCCs.

There is a potential reason for structural holes between these managers; for example, it can be the competition in steel-manufacturing sector. The competition will exist in this sector because it is one of the major sources of income in Cyprus. Also, this sector has newly started developing due to the Cypriot managers, which must be brought to the attention of all citizens who are buying local products.

In testing H2, the level of weak ties can lead GCMs to exchange information faster than the TCMs because managers who are far from the central network can be potential information players for an existing social network. Furthermore, TCMs are coming from a collectivist culture in which they like to share information and help others (Hofstede, 1980). Therefore, the level of information for TCMs will not be very new but remain same and even stronger. At this point, we can argue that the level of weak ties will not actually show us the negative effects of creating weak relations; rather, it can provide evidence on the effectiveness of new information for a social network. GCMs will have a new information transfer between others and this can help them improve the quality of information in the Cypriot community. It is arguable that the difference can create a kind of road map for both communities to follow in order to achieve better social engagements in Cyprus. The main point for using weak ties depends on managers' interest and needs for achieving their future objectives. Furthermore, TCMs and GCMs will possibly create awareness for learning new techniques in forming social relationship in business operations. This process will gain them competence in social network creation and by doing this they will have a better understanding of future expectations in the Cypriot community.

As can be seen from the structural holes measure, H2 has been supported by the TCMS' participation in filling the gaps between other managers. S.K, I.D have achieved the highest degree levels, which means that they are more active in communicating with others in the social network. However, we can see that Y.A also tries to network with all other managers on behalf of the GCMs. On the other hand, if we check the ego betweenness measure of S.K and I.D, then we can see that their ego is less than the Greek manager, Y.A. This shows us that Y.A has developed contacts to the others and has been filling gaps with the highest ego. The main reason will be Y.A's way of working with TCMs and therefore he knows how to deal with social relationships between the two communities. In other words, Y.A should have been known by other managers before, hence, his ego is to be higher than TCMs. There are managers in this study who are not close to the centre of the network. This situation shows us that there are structural holes between all managers. In this study, TCMs will play an important role to fill the structural holes in Cypriot community.

Table 6.
Structural Holes Measures

		1	2	3	4	5	6	7	8	9
		Degree	EffSize	Efficiency	Constrain	Hierarchy	Ego	Betwe	Ln (ConstrIndirects)	Density
1	H.R	8.000	4.973	0.622	0.497	0.095	8.083	-0.699	0.885	0.518
2	D.T	5.000	2.038	0.408	0.663	0.093	1.500	-0.411	0.747	0.750
3	S.S	9.000	6.345	0.705	0.408	0.170	25.429	-0.897	0.711	0.389
4	C.T	8.000	4.783	0.598	0.494	0.184	11.750	-0.705	0.757	0.446
5	H.N	7.000	4.326	0.618	0.488	0.082	5.000	-0.717	0.771	0.571
6	F.S	6.000	3.792	0.632	0.673	0.302	5.000	-0.396	0.664	0.567
7	E.S	3.000	1.000	0.333	0.985	0.018	0.000	-0.015	0.710	1.000
8	C.A	3.000	1.968	0.656	1.078	0.353	0.500	0.075	0.558	0.500
9	**S.K**	**11.000**	**8.330**	**0.757**	**0.357**	**0.207**	**34.940**	**-1.031**	**0.714**	**0.345**
10	**I.D**	**12.000**	**8.546**	**0.712**	**0.438**	**0.331**	**38.467**	**-0.826**	**0.774**	**0.288**
11	D.P	5.000	2.249	0.450	0.759	0.083	1.333	-0.276	0.884	0.800
12	V.M	5.000	2.369	0.474	0.820	0.257	1.500	-0.199	0.751	0.700
13	**Y.A**	**9.000**	**7.256**	**0.806**	**0.312**	**0.112**	**42.083**	**-1.164**	**0.568**	**0.319**
14	A.K	5.000	2.074	0.415	0.886	0.376	0.667	-0.121	0.804	0.650
15	Z.M	3.000	1.583	0.528	1.010	0.333	0.500	0.009	0.523	0.667
16	A.Z	1.000	1.000	1.000	1.000	1.000	0.000	0.000	0.000	
17	C.K	3.000	1.513	0.504	1.094	0.158	0.000	0.090	0.733	0.833
18	A.M	6.000	3.724	0.621	0.701	0.312	2.667	-0.356	0.777	0.533
19	C.O.K	6.000	3.060	0.510	0.579	0.068	1.000	-0.546	0.807	0.733
20	M.V	3.000	1.438	0.479	0.925	0.006	0.500	-0.078	0.663	0.833

Honest Broker Indices

The honest broker indicates managers who provide the highest brokerage role in the Turkish and Greek Cypriot community. In order to understand who is looking forward to helping the others, we will look at HBIO on table below. By considering the HBIO, we can see who plays honest brokerage role in the Cypriot community.

In the honest broker indices, Y.A has got the highest score with 21 for playing a brokerage role between two communities. It can be said that Y.A will provide new information from the Greek Cypriot community to the Turkish Cypriot community. In other words, Y.A fills the structural holes between the two communities as well, which is of clear benefit when it comes to using social capital in an effective way. It can be argued that TCMs will be looking for more social connections for business purposes and therefore there are two managers considered to be more active communicators in the Cypriot community.

On the other hand, Y.A seems to have the tendency to connect with TCMs and does business by sharing as many social ties as he can. This is a laudable behavioral pattern to be recommended to the other GCMs who are serving in the steel-manufacturing sector in Cyprus. The aim was to understand how the two communities integrate information in social relations and use it as social capital for achieving better results. Hence, other managers who serve at lower levels in the list are not necessarily to be taken into consideration in this study. The main reason for disregarding this category of employees is that priority has been given to looking for the difference in SC usage between the two communities in Cyprus.

Table 7.
Honest Broker Indices

		1 Size	2 Pairs	3 HBI0	4 HBI1	5 HBI2	6 nHBI0	7 nHBI1	8 nHBI2
1	H.R	5.000	10.000	4.000	2.000	4.000	0.400	0.200	0.400
2	D.T	4.000	6.000	0.000	2.000	4.000	0.000	0.333	0.667
3	S.S	6.000	15.000	7.000	3.000	5.000	0.467	0.200	0.333
4	C.T	5.000	10.000	2.000	3.000	5.000	0.200	0.300	0.500
5	H.N	4.000	6.000	2.000	1.000	3.000	0.333	0.167	0.500
6	F.S	5.000	10.000	3.000	0.000	7.000	0.300	0.000	0.700
7	E.S	3.000	3.000	0.000	0.000	3.000	0.000	0.000	1.000
8	C.A	1.000	0.000						
9	S.K	8.000	28.000	**14.000**	2.000	12.000	0.500	0.071	0.429
10	I.D	7.000	21.000	**9.000**	0.000	12.000	0.429	0.000	0.571
11	D.P	5.000	10.000	2.000	0.000	8.000	0.200	0.000	0.800
12	V.M	4.000	6.000	0.000	0.000	6.000	0.000	0.000	1.000
13	Y.A	9.000	36.000	**21.000**	7.000	8.000	0.583	0.194	0.222
14	A.K	2.000	1.000	0.000	0.000	1.000	0.000	0.000	1.000
15	Z.M	2.000	1.000	0.000	0.000	1.000	0.000	0.000	1.000
16	A.Z	1.000	0.000						
17	C.K	2.000	1.000	0.000	0.000	1.000	0.000	0.000	1.000
18	A.M	2.000	1.000	0.000	0.000	1.000	0.000	0.000	1.000
19	C.O.K	2.000	1.000	0.000	0.000	1.000	0.000	0.000	1.000
20	M.V	3.000	3.000	0.000	1.000	2.000	0.000	0.333	0.667

Ego networks are defined by incoming ties.
After Size and Pairs, there are three raw HBI indices and three normalized ones.
HBI0 is pure brokerage: No tie between any pair of alters joined by broker.
HBI1 is weak brokerage: One directed tie allowed between pairs of alters joined by broker.
HBI2 is non-brokerage: Alters who have tie to broker have 2-way tie with each other as well.

Another hypothesis is developed to measure the network creation between the two communities in Cyprus. The focus of this is due to various managers demonstrating a tendency to build new networks on a global basis. The SNA method provides certain statistical measures that will prove the hypotheses. Figure 3 shows the centrality measure for managers in the Cypriot community. The H3 will be tested and proved to mention that there is more network creation. In the Core/Periphery Class Membership measures, managers considered in number 1 have the highest centrality in the network and manage to transfer information from one point to the others.

Managers dealt with in number 2 will be known as passives, as they do not have enough responsibility to act on something. The density of network creation is also shown to be higher by the amount 4.714 in the TCCs. There is an equal difference between TCCs and GCCs. On the one hand, there are five managers 'H.N, F.S, E.S, S.K and I.D' who have been defined as enactors, but on the other hand, there are the arbiters and people who are capable of transferring new information from one community to another. Thus, there are only two managers 'V.M and Y.A' who are considered to be passive in network creation activities.
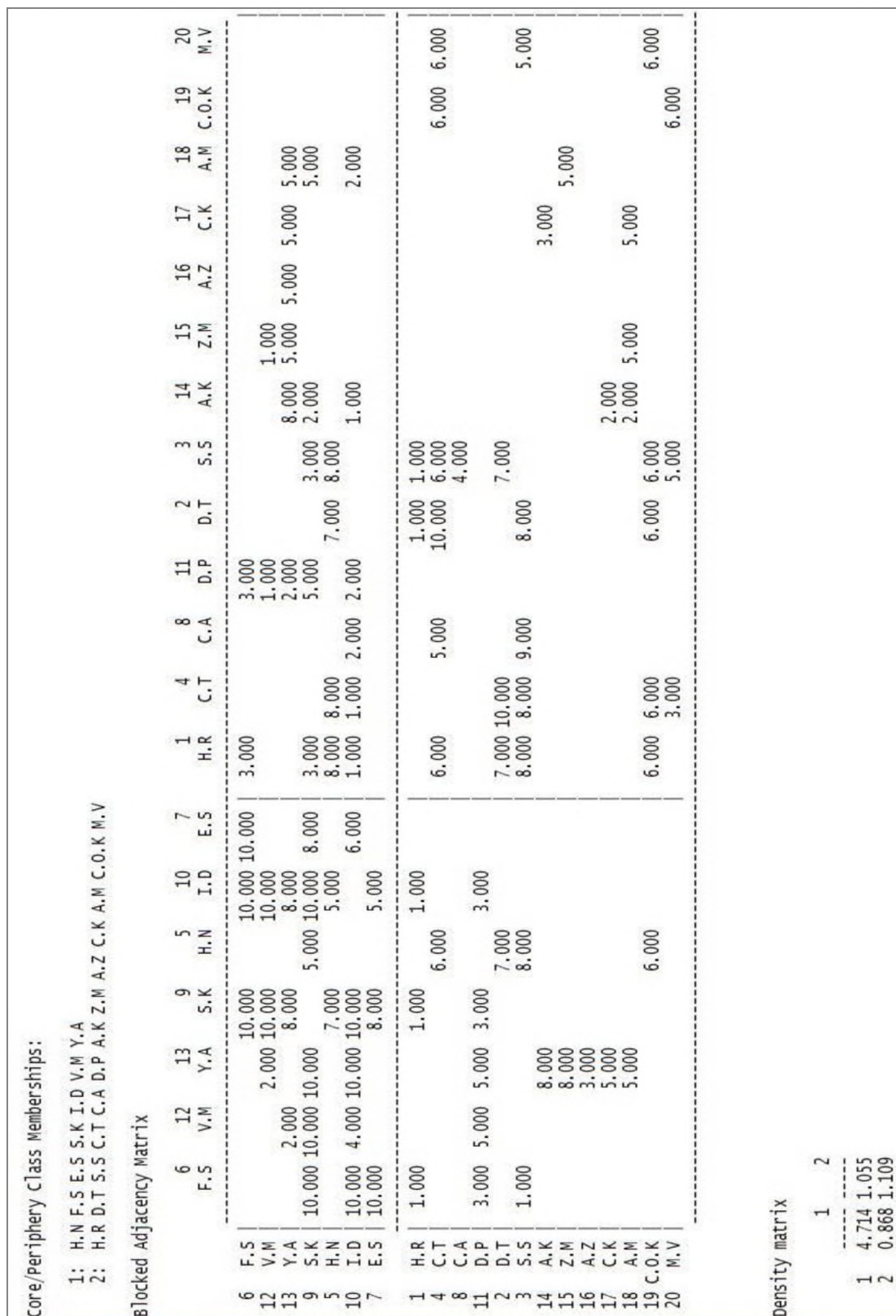
Core/Periphery Class Memberships:

1: H.N F.S E.S S.K I.D V.M Y.A
2: H.R D.T S.S C.T C.A D.P A.K Z.M A.Z C.K A.M C.O.K M.V

Blocked Adjacency Matrix

	6 F.S	12 V.M	13 Y.A	9 S.K	5 H.N	10 I.D	7 E.S	1 H.R	4 C.T	8 C.A	11 D.P	2 D.T	3 S.S	14 A.K	15 Z.M	16 A.Z	17 C.K	18 A.M	19 C.O.K	20 M.V
6 F.S						10.000	10.000	3.000			3.000									
12 V.M			2.000			10.000	10.000				1.000			8.000		1.000		5.000		
13 Y.A		2.000				8.000	8.000				2.000	2.000	3.000	2.000	5.000	5.000	5.000	5.000		
9 S.K	10.000	10.000	10.000		5.000	10.000	8.000	3.000	8.000		5.000	3.000	8.000							
5 H.N				7.000		5.000		8.000	1.000			8.000		1.000						
10 I.D	10.000	10.000	10.000	5.000	5.000		6.000	1.000	1.000	2.000	2.000	7.000						2.000		
7 E.S	10.000	10.000	8.000	8.000	6.000	5.000					2.000	8.000	6.000	1.000						
1 H.R			1.000		6.000	1.000		6.000	7.000 10.000			1.000	1.000						6.000	6.000
4 C.T									8.000	5.000		10.000	6.000						6.000	
8 C.A									9.000				4.000							
11 D.P	3.000	5.000	3.000	7.000		3.000		7.000					7.000							5.000
2 D.T				8.000				8.000		8.000									3.000	
3 S.S	1.000																			
14 A.K			8.000														3.000		2.000	
15 Z.M			8.000							5.000								5.000	2.000	
16 A.Z			3.000																	
17 C.K			5.000																5.000	
18 A.M			5.000																	
19 C.O.K				6.000				6.000	6.000			6.000	6.000			6.000				6.000
20 M.V								3.000				5.000	5.000							

Density matrix

	1	2
1	4.714	1.055
2	0.868	1.109

Figure 2. Core/Periphery Class Memberships

Density / Average Matrix Value

The density measure was undertaken to determine the intensiveness of relationship between the two communities. First of all, data for TCMs and GCMs are entered to the SNA separately and results are obtained for further analysis in order to prove H4 in this research.

Table 8.
Density/Average matrix values

	1 Avg value	2 Std Dev	3 Avgwtd degree
1 Turkish Managers	3.144	3.817	28.300
2 Greek Managers	1.211	2.229	10.900

It can be seen that the average value for cohesion between TCMs and GCMs is highly different. These results prove H4, the TCMs are more likely to have social relationships in the Cypriot community.

Conclusion

TCMs and GCMs are taken into consideration during the SNA to explore how they use their social capital for better social networking within the steel-manufacturing sector. The analyses have shown that TCMs have obtained the highest degree of betweenness (brokerage role) in the Cypriot community. The brokerage role helped TCMs raise the level of social capital, which at the same time provided an advantage to strengthen social ties between the two communities. The steel-manufacturing sector has been developing recently in Cyprus, therefore this sector appears to be in need of time to see more executive level employees joining companies and thereby contributing to the creation of an enhanced social network. Yet, in discussing the results of the study, is argued that TCMs have strong social ties that do not produce new information for them. The new information should be injected in order to develop the existing infrastructure in the Cypriot community. This has led us to see that there are weak social ties in the GCCs, which convey new information because each weak tie in a social network means new managers entering into the steel sector, and this process will bring new information for expansion on business activities. Therefore, the researcher thought that weak ties would exist because of the population in GCCs being larger than that of the TCCs. In other words, social capital will be higher in bigger populations. From this situation, we can conclude that GCCs can obtain and transfer new information more easily than the TCCs who can also communicate new information to the GCCs from their main contacts such as Turkey.

Moreover, findings revealed that TCCs are closer to network creation, which has to be taken into account. TCCs are coming from a collectivist culture and it is inevitable to achieve a common movement in a society. However, GCCs were found to be less close to creating new networks maybe because of the interest or trust in the Cypriot community. Furthermore, TCCs have obtained the highest density in network creation. The researcher also observed that TCMs who are serving in steel business used to know each other better than the GCMs. Hence, GCMs were observed to behave as independent social actors in the Cypriot community, which does not assist them in increasing their social capital usage. Additionally, social capital should be used as linkage to achieve greater economic interdependence between the two communities. For example, it is recommended that the two communities will follow some policy issues and measures for a Cyprus settlement such as 'cooperation and crossings, environmental and economic sustainability.' By developing these policies in Cyprus, every community member will be able to strengthen social capital usage and own wider social networks which can contribute to the economic interdependence in Cyprus (Porter and Powell, 2006; Apostolides, Apostolides, and Güryay, 2012).

The benefits in the socio-political area addressed by the present study are twofold. The first considers relational social capital. The evidence produced by the study indicated that although these two communities have different cultural and religious backgrounds, they are willing to get in touch and interact with each other in a business context. The second benefit has to do with the political issue. The results of the study support the assumption that both categories of managers tend to challenge the political situation in the Island because of company profit. It is strongly believed that both categories of managers have no priority to consider the political situations.

In conclusion, overall, the research reported here has shown that both TCCs and GCCs are participating in social engagements but not as much as they should do. However, two communities' achievements seem to be highly positive, a feature which adds value in economic activities. Granovetter (1973) underlines that economic welfare is largely created by the engagement of social actors in a society.

Recommendations

There is a range of concrete recommendations to be suggested for the Turkish and Greek Cypriot communities. First of all, it is important to get together in social settings and contexts to create stronger social ties among 'peers' and network participants. In other words, managers should be able to fill the structural holes in the related social network that they participated in, in order to reach new members and to develop a readiness to gather and share new information. Such social processes will show new paths to them for expanding their business networks, which have a positive effect on the usage of social capital. Afterwards, social capital (SC) will be increasing not only by business relationships but also through 'social events, parties, funeral rites, opening ceremonies, memberships in social clubs such as football, horse riding, baseball, golf and the virtual environment (Twitter, LinkedIn, Facebook, etc.). All of these are among the resources that each manager will use to increase the level of social capital and achieve further improvements in the Cypriot community.

For the GCMs, it is recommended that they should be closer to building up new social relationships with other managers in the steel sector. This can be achieved through social events or trade in a short time and there will be no cost for doing it. Although there is competition between them, they should still help each other in order to expand the economy. The better social capital they have, the higher the profit. For the TCMs, it is recommended that they do not only keep strengthening social ties but also try to invite new people into their social network. In other words, TCMs may invite foreign investors in order to obtain new information on steel-manufacturing facilities. By doing so, they will gain a distinctive advantage that would be better for social networking. In spite of all efforts, TCMs and GCMs will have common values in order to cooperate and manufacture good quality products for their fellow citizens. There must be good competition between the communities through the use of their social capital.

The researcher has conducted two different workshops to collect primary data from Turkish and Greek Cypriot managers. Based on this experience and with a view to improving the quality of the social network analysis, the researcher recommends that workshops be held during data collection. By conducting workshops, the accuracy of data will be improved and a new meeting among participants would be inevitable. As a result, the workshop method will positively affect the results of SNA studies. The presence of structural holes should be taken into consideration by managers in order to prevent economic and social corruption in the island (Gulati 1998; Gulati et al., 2000; Gargiulo and Benassi, 2000; Gantam, 2000). By doing so, it can be better managed to get higher and effective social capital and will be useful for every age of the Cypriot community. As mentioned before, there are four main sectors based on Cyprus economy, (tourism, agriculture, financial services and real estate) which considerably contribute to the GDP ($ 24.03 billion 2011 est.) of the island. Therefore, this research will be

beneficial for the Cypriot managers in their efforts to focus increased awareness on their social capital usage and they will be able to attempt to import or export between themselves, which will develop the economies of the two communities. Finally, there will be better harmony in the relationships between the two communities.

Limitations and Research for Further Directions

SNA is different from the other tools for sociological inquiry occurring in the literature. Therefore, the study tried to draw a small sample from a small island population by using the SNA. This study only includes Turkish and Greek Cypriot managers and the SC usage of these managers within the steel-manufacturing industry. However, existing knowledge in the field shows that smaller communities perform better in creating social networks and surpass the larger communities when it comes to using social capital to achieve better structural dimensions among the community members. Hence, there are no reason to produce a general report on the results of this research. The same kind of research will be conducted for managers, organisations or groups, but the data collection can be problematic according to the SNA methodology. The researcher observed that time management has become one of the most important limitations in this research, for developing the research questions, hypotheses as well as the other studies.

The research explored social capital usage of managers in the Cypriot community, which has been examined by the SNA method. Solely the relational dimension was illuminated in this study. However, there are two additional dimensions to look at such as 'structural and cognitive'. In further studies, it is recommended not only to study the structural and cognitive dimensions, but also to include the political dimensions in order to provide economic interdependence to the Turkish and Greek communities in Cyprus.

Finally, the industrial aspect of the SNA methodology usage can also be expanded within other relevant sectors or disciplines above all Library and Information Science. The major library types such as the public, university, school and national library, etc. could be considered by scholars, practitioners and researchers. Specifically, inter-library loan studies constitute one of the most suitable topics for SNA methodology.

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Summary

Social capital (SC) has been explained as trusting relationships that occur among individuals, groups or organisations in a society. SC is an important tool to achieve goals and objectives in a routine life. It has become an approach that facilitates and develops social networks with trust, norms, and network elements. It is not only about social network improvement but also related to the structure of social relationships. In other words, it plays the role of glue that holds community together and is an inevitable means for stimulating economic growth in a society. This study aims to explore relational Social Capital amongst Turkish and Greek Cypriot managers (TCMs-GCMs) who are employed in the steel-manufacturing sector in Cyprus. In order to carry out a valid and reliable analysis within this research framework, social network analysis (SNA) method is used to evaluate the SC among the Cypriot managers. The comparative analysis between the two communities is also conducted to understand to what extent Cypriot managers who are serving in steel-manufacturing sector fill structural holes occurring in the Cypriot community.

Cyprus is the third biggest Island after Sicilia and Sardinia in the Mediterranean Sea. The total population of Cyprus is approximately 1,138,071, which means there is potential to develop efficient SC to make necessary expansions of business networks. This study aims to analyse the social capital usage between Turkish and Greek Cypriot Steel Manufacturing Industry Managers. Therefore, it can be said that the present economy on Cyprus has an opportunity to transform itself into a knowledge-based economy. The analyses have shown that TCMs have obtained the highest degree of betweenness (brokerage role) in the Cypriot community. The brokerage role helps TCMs to raise the level of social capital, which also provides an advantage to strengthen social ties between the two communities, which at the same time have an opportunity to keep a peaceful process in the Island. The steel-manufacturing industry have been developing recently in Cyprus, therefore this sector appears to be in need of time to have more participants joining companies and engaging in efforts to develop a better social network.

The results of the study show that social capital has played a vital role in the creation of new social networks in the case of Cyprus. Moreover, the analysis has also highlighted the inadequacy of the social interactions between the two communities, likely stemming from the political and economic issues of the Island.

It is assumed that social capital will be increasing not only by business relationships but also 'social events, parties, funeral rites, opening ceremonies, memberships in social clubs such as football, horse riding, baseball, golf and the virtual environment (twitter, LinkedIn, Facebook, etc.). It is also believed that the social capital belonging to the two different societies will be brought to live under the united Federate Republic of Cyprus.