Networking within Divisional Secretaries and its Impact on Organizational Performance
(Special reference to Divisional Secretaries in Sri Lanka)

Perera, H.S.C
Associate Professor, University of Ruhuna, Matara, Sri Lanka
sunethrap@badm.ruh.ac.lk

Gunawardana, T.S.I.L.W
Senior Lecturer, University of Ruhuna, Matara, Sri Lanka
gunawardana@badm.ruh.ac.lk

Gunarathna, K.A.W.L.W.
Department of Motor Traffic, Sri Lanka
wasanthaguna@yahoo.com

ABSTRACT

The networking among organizations and within the organization is very important to achieve vision, mission and the performance of any organization. Although there are studies about networking in a global context, it is hard to find networking related studies in the local context. Therefore, this study of networking within divisional secretaries and its impact on their performance is important. The main objective of this study is to analysis the networking within the divisional secretaries and its impact on the performance of those divisional secretaries. The studies depend upon the answers based on the questionnaire survey. Although the networks fall into two principal categories such as inter-firm networks and inter-personal networks, this study is limited to studying interpersonal network. The network is a vague concept and it consists of a set of actors (“nodes”) and the relations (“ties” or “edges”) between these actors. Relevant literature discussed to build the analytical framework and different theories of networking such as theories of self-interest, social exchange and dependency theory, mutual interest and collective action, a family of cognitive theories and theory of homophily. It reviewed the relevant literature on job performance and networking related performance. It also discussed the divisional administration and divisional secretaries. In this study impact of networking on the performance of divisional secretaries was measured with five independent variables such as instrumental network, expressive network, friendship network, advice network and knowledge network. Primary and secondary data were used to analyze the networking related performance. The survey was done throughout the all divisional secretaries in Sri Lanka via a questionnaire and collected data were analyzed by using Structural equation modelling (SEM). According to the study, the most important and affected networking activity which was highly affected by the performance is the knowledge network. Friendship network and instrumental network are the second and third networks effects on...
performance that is to follow on respectively. The expressive network has a moderate effect on performance while the advice network shows no positive effect on performance.

**Keywords:** Advice Network, Expressive Network, Friendship Network, Instrumental Network, Knowledge Network, Organizational Performance

1. **BACKGROUND OF THE STUDY:**

Network researchers have examined a broad range of types of ties and these ties are causes to networking (Huayou *et al.*, 2019). There are two major types of networks, formal and informal (Ibarra, 1993). In addition to the common distinction, the network can be categorized into many different types. These include communication ties (such as who talks to whom, or who gives information or advice to whom), formal ties (such as who reports to whom), affective ties (such as who likes whom, or who trusts whom), material or workflow ties (such as who gives money or other resources to whom), proximity ties (who is spatially or electronically close to whom), and cognitive ties (such as who knows whom). Networks are typically multiplex, that is, actors share more than one type of tie. (Granovetter, 1973, 1982). Each organization in the world the most important factor of employee performance is to achieve goals. Successful employees meet deadlines, make sales and build the brand via positive interactions” (Leonard; 2019). “Interpersonal relationship has been identified as an important factor in the psychosocial work environment that could affect wellbeing, job satisfaction, performance and productivity” (Stoetzer, 2010). “Interpersonal relationships at work have an advantageous impact on both organizational and individual variables. Ho and Levesque (2005) describe that social relation and networking influence psychological contract and behavior. More specifically they revealed that networking can influence employees’ behavior, attitude and their job-related outcomes. According to Powell and Smith-Doer, (1994), ‘Once social networks can be linked with how well one performs; the ability to get things done and subsequent promotion with the organization.’ Therefore, networking thus helps to enhance performance. Workplace relationships comprise those interpersonal relationships in which individuals are involved in the course of performing their jobs. Such relationships include supervisor-subordinate relationships, peer worker relationships, workplace friendships, romantic relationships and customer relationships (Sias, 2008).

The concept of the public sector is wide and may be defined in many different ways. According to Lane (2005), the public sector means institutions supported by the State and municipal budgets, which activity is public (the information about it is available to the public). The public sector has public goods, which are not under any competition and which access to any individual. Although the main goal of business organizations is to gain profit, organizations in the public sector are non-profit oriented? Therefore, it needs to study, factors impact on organizational performance in public sector organizations. “The findings of recent research indicated that social capital beyond its direct impact,
exerts an indirect impact on organizational performance” (Chamanifard et al., 2015). “Social capital is the process by which social actors create and mobilize their network connections within and between organizations to gain access to other social actors’ resources” (Knok, 1999). Organizational social capital is generally understood as the ability of the individuals in the organization to work for the common good, and networking and trust are most often used to characterize organizational social capital (Hasle et al., 2007).

Several theoretical and empirical studies have examined the consequences of network relationships in the workplace, particularly job performance (Shah et al., 2019). Public sector employees are somewhat behind in using networking in their day to day functions when compared to private sector employees. Further, it was evident that previous research has demonstrated a relationship between network and employee’s performance, relatively few studies have explicitly taken professionals and examined the link between the network and organizational outcomes (e.g. Chung and Hossain, 2009; Gargiulo et al., 2009). It is very rare to find research literature to understand the social networking activities and their job-related outcomes of public sector organizations in Sri Lanka. Therefore, it is important to study networking in case of the performance of Divisional Secretaries in Sri Lanka. This situation leads to generate the research problem as “What are the networking functions practiced within and among the divisional secretariats and how do they affect the organizational performance. Also, this knowledge gap was examined through this research by addressing the effect of networking practices by public sector managers on organizational performance in the Sri Lankan context.

2. REVIEW OF LITERATURE / THEORETICAL BACKGROUND:

A social network consists of a set of actors (“nodes”) and the relations (“ties” or “edges”) between these actors (Wasserman & Faust, 1994). Relational ties are constructed either as dyadic (there can be only direct links between two identified nodes) social relationships linking social system members across social categories and bounded groups, or as non-dyadic relations linking members of subsets of arbitrary size. The nodes may be individuals, groups, organizations, or societies. The ties may fall within a level of analysis (e.g., individual-to-individual ties) or may cross levels of analysis (e.g., individual-to-group ties). A complete network consists of a group of individuals with one or more relations defined among them. The individuals between whom relational ties can exist are called “actors”. An actor is presumed to develop relational ties with some, but not necessarily all actors or events that are part of his or her network (Wasserman & Faust, 1994).

Hoang and Antoncic (2003) conclude that, concerning network content, networks fall into two principal categories: inter-firm networks and inter-personal networks. Broadly, an inter-personal network is the sum of relationships linking one person with other people (Burt, 1992) whereas inter-firm networks are usually described as a set of relationships linking one firm with other firms (Johanson & Mattson, 1988).
Moreover, prior research employs many different terms to describe the meaning of networks, including social networks, personal connections (Andersen, 2006), informal networks (Coviello & Munro, 1997), and social ties (Ellis, 2011). Propose that inter-personal networks are networks among individuals who are predominantly linked through social context–based interactions. Popular networking opportunities include trade shows, conferences, seminars and social gatherings. These are often organized by trade associations, professional bodies, business support organizations and interest groups. It was described that individuals in organizations can gain more benefits from the social network through the connection between members inside the group and colleagues outside the group. That could be seen as a potential benefit for the individual and coincident the organization” (Ferron et al., 2011; Cummings, 2012).

Several theoretical and empirical studies have examined the consequences of network relationships in the workplace, particularly job performance. Networking at work has a positive impact on both organizational and individual variables (Cherniss, 1991). Further, it was evident that networking at work can improve individual employee attitudes such as job satisfaction, job commitment, engagement and perceived organizational support (Cherniss, 1991). Besides, an employee’s negative work attitudes can be mitigated when peers act as confidantes to discuss bad and unpleasant work experiences (Anderson & Martin, 1995). In today’s corporate world, there is a need for work to be done as quick as possible, and for this purpose, working professionals need to have a good relationship with each of them. Many professionals have increasingly relied on networking as it is one of the most effective ways of ensuring individual performance.

Networking is not just "what you know," but also "who you know" that can be a source of strength for leaders. Networking is given different definitions. According to Phil Bartle, “Networking is a matter of creating useful linkages, both within and among communities, organizations, and societies, to mobilize resources and achieve various goals”. Phil Bartle, "Elements of Community Strength," A network can be defined as a collection of links between elements of a unit (van Dijk, 2006). The unit as a whole is often called a system. Emphasizing the links between the elements of this system means referring to the network inside a particular system. Networking is the single most powerful marketing tactic to accelerate and sustain success for any individual or organization. The inter-personal network is the sum of relationships linking one person with other people (Burt, 1992). A social network is a routing pattern of interpersonal contacts that can be identified as group members exchange information (Farace et al., 1977). Although, the researchers discuss on a set of combined networking literature namely, formal network (Das and Teng, 1997), informal network (Brass et al., 2004), instrumental network (Ibarra, 1993), expressive network (Brass, 1992), friendship network, advice network (Sparrowe, et al., L2001) and knowledge networks (Raub, 2002), of which is somewhat related to study at hand, however, their
perspectives differ from the study at hand. Nothing the gap in understanding the networking literature, this paper intends to examine the effects of networking on organizational performance.

2.1. Theories of Networking:

Network scholars explain why people create, maintain, dissolve, and possibly reconstitute network ties. There are multiple schools of thought or “families of theories” (Monge, 2003) within the network perspective that approach this concept from different vantage points. These include theories of self-interest, theories of social exchange or dependency, theories of mutual or collective interest, cognitive theories, and theories of homophile. In this section, it is briefly described each school, highlighting and theoretical mechanisms. A basic assumption of network theory is that the internal and external relations of units become ever more important in the actions of contemporary social units and their elements (Monge, 2003).

2.1.1. Theories of Self-Interest:

There is a large school of network researchers who come from a rational self-interest paradigm. These scholars assume that people form dyadic and group ties to maximize their personal preferences and desires. The rational self-interest school within network research can be traced back to the work of sociologist (Coleman, 1988). Coleman showed how, from two-actor interactions, with each actor operating out of self-interest, emerges the basis for a social system (such as a small group). While each actor is trying to maximize his or her interests, each is at the same time constrained because he or she is embedded in an interdependent relationship with the other. That relationship imposes limits on both actors’ behavior and regulates the extent of self-seeking. These limits are counterbalanced by the increased access to resources each actor gets via the other. Individuals consider the creation of ties as an investment in the accumulation of social resources or “social capital.” Social capital is the “sum of the resources, actual or virtual, that accrue to an individual or group by possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (Bourdieu & Wacquant, 1992, p. 119). From a self-interest perspective, individuals expect to deploy this social capital (Coleman, 1988) and reap returns on their investment in the form of opportunities from which they can profit. For instance, Burt (1992) argues that “structural holes” in a network provide an opportunity for individuals to invest their social capital.

2.1.2. Social Exchange and Dependency Theory:

George Homans (1950) was a forebear of the social exchange school. According to The theory, the people establish ties to others with whom they can exchange valued resources. Whether a relationship will be sustained over time will depend on the payoffs to each of the two parties. With exchange theory, Homans sought to link the micro to the macro levels of analysis and show how the social structure arises
from these one-on-one interactions. Emerson (1976) enlarged the focus of exchange theory to look beyond the dyad at the network of relationships in which the dyad is embedded. Emerson examined exchanges and power dependences at both inter-individual and intergroup levels. Theory argued that when individuals or groups exchange valued resources, this is made possible due to a large-scale network of relationships.

2.1.3. Family of Cognitive Theories:

This theory focuses to study of small group and which draws on a family of cognitive theories based on the theory of transitive memory systems and the theory of cognitive consistency. Whereas both theories focus on group members’ cognitions, they differ in their explanation for why group members create and maintain their network ties. The theory of transitive memory explains how group members, each with their own set of skills and expertise, develop communication networks that help them identify and leverage the skills and expertise of others in the group (Wegner, 1995). The balance theory posited that if two individuals were friends, they should have similar evaluations of an object. This model was extended and mathematically formulated by Harary et al., (1965). Holland and Leinhardt (1975) argued that the object could be a third person in a communication network. If the two individuals did not consistently evaluate the third person, they would experience a state of discomfort and would strive to reduce this cognitive inconsistency by altering their evaluations of either the third person or their friendship. In common parlance, this argument is captured by the aphorism “We like to be friends with friends of our friends” and the occurrence of tension when our friends are not friends with one another.

In small groups, these affect ties (“who likes whom”) are an important explanation of the creation of communication ties within a group and the development of coalitions within groups. Researchers have examined the effects of cognitive consistency on individuals’ attitudes. For instance, Krackhardt and Kilduff (1990) reported that members whose friends were friends with one another (they labelled this “schema consistent”) tended to be more satisfied than those whose friends did not get along with one another.

2.1.4. Theory of Homophily:

A network perspective can help explain group communication based on homophily. That is, members are more likely to create communication ties with other group members who they deem to be similar. In colloquial terms, “birds of a feather flock together.” Brass (1995) observes that “similarity is thought to ease communication, increase the predictability of behavior, and foster trust and reciprocity”. Indeed, the similarity-attraction hypothesis is exemplified in the work of Sherif (1958), who suggested that individuals were more likely to select similar others because by doing so they reduce the potential areas of conflict in the relationship. A key issue for theories of homophily is determining the criteria used to evaluate similarity. Homophily has been studied based on similarity in age, gender, education, prestige,
social class, tenure, and occupation (Ibarra, 1995; Pallotti et. al, 2011). A communication network perspective can to explain (a) what criteria are used by group members to identify similar others and (b) how these criteria are invoked to create communication ties with similar others.

All these theories were discussed how people create, maintain, and reconstitute networking and how it affects social units. Each theory is having its own philosophy with networking. Further, the theories of self-interest discussed the opportunity for individuals to invest their social capital where social exchange and dependency theory contributes with theories on how individuals or groups exchanges values and resources through large network relationship. The cognitive theories discussed how group members in an organization maintain their network ties, especially, the theory of transitive memory explain how group members share their skills and experiences with other members. Moreover, theory of homophile agreed that individuals and, or group have communication ties with similar others.

2.2. Types of Networks:

The network can be categorized into many different types. A common distinction between two different types of networks that are formal network and informal network (Ibarra, 1993). The **formal network** contains with the people only known formally: employer, superiors at work, co-workers, and people may have met at a reception, but who only know being connected to someone only known formally etc. According to Ibarra (1993), a formal network is “composed of a set of formally specified relationships between superiors and subordinates and among representatives of functionally differentiated groups who must interact to accomplish an organizationally defined task.” Hence, this type of relationship is characterized by formal hierarchy, or rules and regulations and is, therefore, not chosen randomly or voluntarily. **Informal** inter-personal networks, by contrast, “involve more discretionary patterns of interaction, where the content of relationships may be work-related, social, or a combination of both.” (Ibarra, 1993). Friends and family members are major components of informal networks (Birley, 1985). In addition to friends, family, informal network includes in-laws, neighbors get along with, friends of friends etc. The **instrumental network** is another kind of network and those ties “arise in the course of work role performance and involve the exchange of job-related resources, including information, expertise, professional advice, and material resources” (Ibarra, 1993). These ties refer almost explicitly to the formally defined roles that employees serve when providing task-related help, advice, or information. Instrumental network relationships are based on sharing knowledge and information and therefore have a transactional character. Instrumental ties are often used to exchange work-related resources, and they typically involve actions that seek information, expertise, and professional advice (Ibarra, 1993; Lincoln and Miller, 1979). “**Expressive network** is also one tie tend to be less closely bound to formal structure and work roles, and involve interpersonal effect and the exchange of emotional support that is not related to the task itself” (Ibarra, 1993). The origin of expressive ties is not as straightforward as for instrumental ties, so they deserve a more detailed review. They are not
formally prescribed but develop from discretionary interactions. These ties are most often characterized by friendship (Brass, 1992). Friendship network is one of network pattern which emerges between two people only if and when their paths cross. They will have to ‘meet’ before they can ‘mate.’ They would be more likely to meet if they share, Friendship networks often entail access to information and knowledge directly and indirectly. Advice network is another array which reflects an individual’s involvement in exchanging resources in the process of problem-solving. Advice network is capable of accumulating information, knowledge, and experiences about task-related problems, and thus is likely to perform better. Advice networks consist of relations through which individuals share resources such as information, assistance, and guidance that are related to the completion of their work (Sparrowe, et al., 2001). The advice network is more instrumental-oriented than is the friendship network. Knowledge networks are one major network category which affects to the performance and it leads to the accumulation, augmentation and exchange of tacit knowledge and improved skills required for innovation. The major benefits of knowledge networks are to be found in three areas: improved efficiency, increased innovation and personal satisfaction. (Buchel, 2002). Given the rather loose links between members of a network, a certain degree of optimization of the network’s activities is an important step toward effective exchange and continued engagement by its members.

2.3. Organizational Performance in Public Sector:

Job performance is one of the most important dependent variables and has been studied for a long decade. “Defining performance in the public sector is however a difficult task which derives from the complex role of the public sector. One way to define performance in the public sector requires the existence of a relationship between objectives, means and results, so performance is the result of the simultaneous exertion of efficiency, effectiveness and of proper budgeting” (Profiroiu, 2001). Performance in the public sector describes the results of activity in a specific area or aggregate results from several or all activity fields of a public body, being measured either in absolute terms (as an index) or to the results achieved in the previous periods (Handler, 2004). Job performance can be defined as the job-related activities expected of a worker and how well those activities were executed. Different researchers have different thoughts about performance. Most researchers have used the term performance to express the range of measurements of transactional efficiency and input & output efficiency (Stannack, 1996). Performance refers to the degree of achievement of the mission at the workplace that builds up an employee job (Cascio, 2006). Job performance has been defined as the value an organization can expect from discrete behaviors performed by employee overtime (Motowidlo & Van Scotter, 1994). Motowidlo & Van Scotter, (1994) suggested several assumptions about job performance that lead to this definition including the idea that job performance is behavioral, episodic, evaluative, and multidimensional. There must be, however, a clarification of the difference between behavior and performance; behavior is what people do and performance is the anticipated organizational
value of what people do. Performance is a multi-dimensional concept. Borman and Motowidlo, (1997) distinguished between two types of job performance; task performance and contextual performance. Task performance refers to behaviors that are directly involved in producing goods or service or activities that provide indirect support for the organization’s core technical processes (Borman & Motowidlo, 1997; Werner, 2000). These behaviors directly related to the formal organization reward system. On the other hand, contextual performance is defined as individual efforts that are not directly related to their main task functions. However, these behaviors are important because they shape the organizational, social, and psychological contexts serving as the critical catalyst for task activities and processes (Werner, 2000). Task performance represents those things that are typically on a job description and involve the transformation of materials into goods and services such as sales or operating manufacturing equipment. Contextual performance refers to the behavior that contributes to organizational effectiveness through its effects on the psychological, social, and organizational context of work (Borman & Motowidlo, 1997). “Performance of members of any organization depends on the ability to effectively interact with their superiors, subordinates and co-workers within the organization and consumers, suppliers and general public outside. Interpersonal relations, therefore, is a very important issue involving any organization” Obakpolo, (2015). Performance gains organizations in many ways. Performance is also important for the individual. Accomplishing tasks and Performing at a high level can be a source of satisfaction, with feelings of mastery and pride. Low performance and not achieving the goals might be experienced as dissatisfying or even as a personal failure.

2.4. Networking and Performance:

Organizations need highly performing individuals to meet their goals. Organization’s productivity base on its employee’s performance, and its employee’s performance, are depending on many factors. The interpersonal relationship has been identified as an important factor in the psychosocial work environment that could affect wellbeing, job satisfaction, performance and productivity (Stoetzer, 2010, Pallotti et al., 2011). Therefore, networking is one of the important factors affecting performance. People who are high-performers in their organizations and build successful careers have been shown to have different personal networks. Šašovová, (2006) mentions that positive social relations could lead to increased performance. Sparrowe et al., (2001) state that an advice network is a means for obtaining resources that are instrumental in facilitating individual job performance”. This is in line with Cross and Cummings (2004) who state that crossing (organizational and departmental) boundaries have significant associations with performance. The type of work that professionals do, can be considered complex and therefore one could expect that when professionals across the borders of their organization and have a network of heterogeneous ties would result in higher performance. Research indicates that successful managers spend 70 percent more time networking than their less successful counterparts and that people with rich social networks are better informed, more creative, more efficient, and better
problem-solvers than those with limited social networks (Freifeld, 2013). When a task is to be done, an individual can enhance his or her job by obtaining help from available networks. The network reflects an individual’s involvement in exchanging resources in the process of problem-solving. The network is capable of accumulating information, knowledge, and experiences about task-related problems, and thus is likely to perform better. Effective networkers can access the people, information, and resources they need to identify problems and potential solutions and get things done. By having a trusted set of advisors and advocates, effective networkers make better decisions faster and are more likely to have support for their ideas and plans. Wasserman and Faust, (1994) state that the ability to access diverse and valuable information effectively promotes worker productivity in two ways. Primarily, accessing information related to work at hand can directly improve the quality of work, as it can increase the chance of finding solutions to difficult problems. Secondarily, accessing diverse information makes it more likely that new opportunities and resources will be discovered more quickly. Interpersonal relationships are involved in the course of performing their jobs. Such relationships include supervisor-subordinate relationships, Peer-Worker relationships, workplace friendships, romantic relationships and customer relationships (Sias, 2008). According to Gerstner and Day, managers who are leaders or supervisors can affect an employee’s job motivation and job performance (Gerstner and Day, 1997). Public sector employees are practicing network means they are crossing the boundaries of their organization. Cross and Cummings (2004) who state that crossing (organizational and departmental) boundaries have significant associations with performance. On that ground, one could expect that when DSs cross the borders of their organization and have a network would result in higher performance.

3. METHODOLOGY:

3.1. Conceptual Framework and Hypotheses:

The research model proposed in the present study is shown in figure 1. Theoretical foundations for the current model are based on the aforementioned theories of networking (Monge, 2003), and the literature reviews. In this section focuses to develop an initial research model and the hypotheses assumed from the research question. Much care has been exercised to satisfy the criterion of replicability (Kerlinger, 1986). The result is a fairly detailed measurement and data collection sections making it possible for others to reproduce the research, to reanalyze the data, and to judge the adequacy of the methods and the data collection.
When developing the conceptual framework of the present study, based on the previous literature, measure the positive or negative impact on organizational performance by the types of networking (i.e., instrumental networking, expressive network, friendship network, advice network and knowledge network). As mentioned, observational data collected prior to this study were important as they led to a research idea and hence provided some direction to the investigation. The literature reviewed in the previous section examined the theoretical and empirical work conducted into the benefits of being types of networks in support of the view that such networking leads to better organizational performance as outlined in figure 1. Several theoretical and empirical studies have examined the consequences of network relationships in the workplace, particularly job performance. Generally, the research that has been conducted suggests that instrumental ties have positive implications for job performance (Baldwin, Bedel and Johnson, 1997). Šašovová (2006) mentions that positive social relations could lead to
increased performance. Sparrowe et al., (2001, p.318) state that ‘an advice network is facilitating individual job performance”. Cross and Cummings (2004) who state that crossing (organizational and departmental) boundaries have significant associations with performance. Based on the above-mentioned theoretical background and research suggestions, here to develop the following hypotheses.

- **H1**: There is a significant positive relationship between instrumental network and performance,
- **H2**: There is a significant positive relationship between expressive network and performance,
- **H3**: There is a significant positive relationship between friendships network and performance,
- **H4**: There is a significant positive relationship between advice network and performance,
- **H5**: There is a significant positive relationship between knowledge network and performance.

3.2. Study Design and Methods:

3.2.1. Research Context:

The present study examines the impact of types of networking (i.e., instrumental networking, expressive network, friendship network, advice network and knowledge network) on organizational performance at divisional secretariats in Sri Lanka. Leedy and Ormrod, (2010) describe research design as the framework of research methods and techniques chosen by a researcher. The design allows researchers to hone in on research methods that are suitable for the subject matter and set up their studies for success. An impactful research design usually creates a minimum bias in data and increases trust in the accuracy of the collected data (Kelinger, 1986). A single time period data collection through a single cross-sectional design is regarded as more adequate. The research strategy used in the current research involves, in line with the arguments outlined above, the use of a conclusive research design in the form of descriptive research where the necessary data are collected through a single cross-sectional design. Chenhall (2003) defines context as the environment and conditions in which the study takes place as well as the culture of the participants and location. This study focuses on divisional secretariats in Sri Lanka. The selected population of the study is whole Divisional Secretaries in Sri Lanka and the whole population is taken as the sample, therefore, the sample size is also the same as the population. The sample consists of deferent races, multi-cultural and multi-religious. The primary data collected through a self-developed questionnaire. This study tests the cause and effect relationship between types of networking and organizational performance based on predetermined five hypotheses. Structural equation modelling (SEM) was used for data analysis. The software used for the analysis was Smart PLS.
3.2.2. The Sample, Study Variables, Questionnaire Design and Data Collection:

To study the Networking within divisional secretaries and its impact on performance, the selected population was whole Divisional Secretaries in Sri Lanka. There are 332 DSs in Sri Lanka at present. The whole population is taken as the sample. Therefore, the sample size is also the same as the population. The sample consists of three different races which are Sinhalese, Tamils and Muslims. Although the majority represent by Sinhalese, the sample is multi-cultural and multi-religious. This section discusses the questionnaire design process. The data relating to the research questions are not publicly available. It has to be collected through a survey. The data, which are collected from the units or individual respondents directly for the purpose of certain study or information, are known as primary data. According to this study, the primary data collected from whole DSs in Sri Lanka through a questionnaire with a view to find out the networking within divisional secretaries and its impact on performance. Primary data were collected through the mail and email questionnaire, interview and observation method. The data collection had happened from February 2020 to May 2020. The achieved sample consists of 156 questioners. Out of 156 questioners, 150 were usable. Six questioners were unable to use, because of incompleteness. The overall response rate was 45.18%. This study, therefore, uses PLS to process the data because of sample size is somewhat small. Demographic data analysis has done through the SSPS and 102 respondents were mail and that was 68%, 48 were females that was 32%. The education level of the respondents was as follows, 33 were graduates that was 22%. 06 were having the only diploma that was 04%. 110 were the postgraduates that were 73.3% and one respondent has PhD qualification (0.6%). The questionnaire is composed of two parts. The first part of the questionnaire was designed to operationalize key variables under the types of networking such as instrumental networking, expressive network, friendship network, advice network and knowledge network and organizational performance. The second part of the questionnaire asks demographic information about respondents. The six study constructs of the study i.e., instrumental networking, expressive network, friendship network, advice network and knowledge network and organizational performance were operationalized as multi-item constructs. The questions were developed by using a five-point scale ranging from “1= strongly disagree” to “5= strongly agree”.

4. DATA ANALYSIS AND RESULTS:

Discriminant validity ensures that a construct measure is empirically unique and represents phenomena of interest that other measures in a structural equation model do not capture (Hair et al., 2010). Technically, discriminant validity requires that “a test not correlate too highly with measures from which it is supposed to differ” (Campbell, 1960, p.548). The discriminant validity of the latent variables was tested using Fornell and Larcker (1981) approach. Table 1 shows the discriminant validity of each latent variable. The discriminant validity of the latent variables which requires that each latent variable’s AVE is greater than the latent variable’s squared correlation with any other construct in the model. The
other entries in Table 1 shows the square of correlations ($R^2$) between constructs. No non-diagonal entry exceeds the AVE of the specific construct.

The covariance-based (CBSEM) approach and the variance-based partial least squares path modelling (PLS) are two statistical methodologies for estimating SEM with latent variables. Jöreskog and Wold (1982) viewed CB-SEM and PLS-SEM as complementary rather than competitive statistical methods. More specifically, Wold (1982) recognized CB-SEM’s potential for the social sciences but was concerned about the informational and distributional requirements which are regarded as unrealistic for empirical research. To correctly apply CB-SEM and PLS-SEM, researchers must understand the purposes for which each approach was developed and apply them accordingly. Structural equation models with good measurement properties generally achieve comparable results with either approach, especially when the CB-SEM’s model specifications have been correctly set up (Reinartz et al., 2009).

| Latent Variables | 1   | 2   | 3   | 4   | 5   |
|------------------|-----|-----|-----|-----|-----|
| Advice network   | 0.87|     |     |     |     |
| Expressive network | 0.71| 0.84|     |     |     |
| Friendship network | 0.47| 0.44| 0.81|     |     |
| Instrumental networking | 0.48| 0.49| 0.57| 0.75|     |
| Knowledge network | 0.55| 0.47| 0.37| 0.50|     |
| Organizational performance | 0.59| 0.53| 0.58| 0.60| 0.71|

Source: Survey data (2020)

PLS-SEM only permits recursive relationships in the structural model (i.e., no causal loops). Therefore, the structural paths between the latent constructs can only head in a single direction (Volckner et al., 2010). CB-SEM develops a theoretical covariance matrix based on a specified set of structural equations. The technique focuses on estimating a set of model parameters in such a way that the difference between the theoretical covariance matrix and the estimated covariance matrix is minimized (e.g., Rigdon, 1998). The CB-SEM model estimation requires a set of assumptions to be fulfilled, including the multivariate normality of data, minimum sample size, and so forth (e.g., Diamantopoulos & Siguaw, 2000). A SEM with latent constructs has two components (i.e., inner model and measurement model). SEM does not only allow to analyze a set of latent factors like dependent and independent variables in regression analysis (Segars & Grover, 1993) but also provides a comprehensive means to assess and modify theoretical models (Karahanna & Straub, 1999).

Each construct in the measurement model was measured using multiple items. Each manifest variable in a certain measurement model is assumed to be generated as a linear function of its latent variables and the residual. Table 2 presents an overview of the standardized factor loadings, t-values, composite
reliabilities and average variances extracted (AVEs). The analysis of the measurement model provides evidence of the robustness of the measures as indicated by their reliabilities.

Table 2: Confirmatory Factor Analysis of Constructs

| Constructs and indicators | Standardise factor loadings (t-value) | Composite reliability/AVE |
|---------------------------|--------------------------------------|---------------------------|
| **Independent Variables** |                                      |                           |
| **Instrumental network**  |                                      |                           |
| Exchange work-related resources with other employees. | 0.75 (17.39) |                           |
| Exchange work-related resources with other organizations. | 0.77 (19.36) |                           |
| Always share knowledge and information with others. | 0.78 (21.17) |                           |
| Exchange social support with other organizations. | 0.70 (11.09) |                           |
| **Expressive network**    |                                      |                           |
| Exchange alliance and trust with other employees. | 0.80 (18.99) |                           |
| Exchange alliance and trust with other organizations. | 0.84 (28.51) |                           |
| Exchange social support with other employees. | 0.90 (52.30) |                           |
| Exchange social support with other organizations. | 0.83 (21.29) |                           |
| **Friendship network**    |                                      |                           |
| Access to information which is important at work directly from friends. | 0.76 (17.61) |                           |
| Access to information which is important at work indirectly from friends. | 0.84 (27.26) |                           |
| Often access to knowledge directly from friends. | 0.88 (41.99) |                           |
| Often access to knowledge indirectly from friends. | 0.88 (34.94) |                           |
| **Advice network**        |                                      |                           |
| Share information assistance and guidance with peers at the process of problem-solving. | 0.83 (17.04) |                           |
| Share information assistance and guidance with my higher officers at the process of problem-solving. | 0.87 (32.02) |                           |
| Accumulate and exchange knowledge and experience about task-related problems with my peers. | 0.91 (56.29) |                           |
| Accumulate and exchange knowledge and experience about task-related problems with my higher officers. | 0.88 (41.79) |                           |
| **Knowledge network**     |                                      |                           |
| I exchange tacit knowledge within my organization and improve skills required innovations. | 0.84 (21.95) |                           |
| I exchange tacit knowledge among other organizations and improve skills required innovations. | 0.84 (19.17) |                           |
| My organization effectively exchanges and continuously engages in tacit knowledge. | 0.85 (24.56) |                           |
| My organization improves skills required innovations. | 0.86 (30.53) |                           |
| **Dependent Variable**    |                                      |                           |
| **Performance**           |                                      |                           |
| I achieve my personal goals and tasks at high level. | 0.74 (14.48) |                           |
| My employees get recognition, satisfaction, rewards and awards. | 0.83 (30.58) |                           |
| My employees’ execution of job-related responsibilities, accountabilities and tasks. | 0.82 (22.53) |                           |
4.1. Impact of Types of Networking on Organizational Performance

Table 3 shows the summary of the coefficient of determination ($R^2$) the study measures the coefficient of determination ($R^2$) of the endogenous latent variable i.e., performance. The percentage of explained variance ($R^2$) is 0.65 for performance. Also, table 2 summarizes these relationships and shows the values of standardized path coefficients ($\beta$), standard errors (se), t-values ($t$), and significance values ($p$) of path coefficients including model goodness of fit statistics.

The results reveal that instrumental networking has a positive and statistically significant relationship with organizational performance. This relationship is supported by data ($\beta=0.32$, $t=5.61$, $p<0.000$) in harmony with postulated theory, results show that a firm’s magnitude of instrumental networking has a positive and statistically significant effect upon organizational performance. There is a positive and statistically positive relationship between expressive network and organizational performance ($\beta = 0.28$, $t = 3.12$; $p < 0.05$). There is a positive relationship and statistically significant relationship between friendship network and organizational performance ($\beta = 0.21$, $t = 2.89$; $p < 0.05$). Advice network has a positive relationship between knowledge network and organizational performance ($\beta = 0.43$, $t = 7.47$; $p < 0.000$) and it is in expected direction. There is a positive relationship between knowledge network and organizational performance ($\beta = 0.17$, $t = 0.56$; $p < 0.136$). There is a
positive relationship but the relationship is not statistically significant. The structural model of the study is shown in figure 2.

Figure 2: Structural Path Model

5. DISCUSSION AND CONCLUSION:

This study is to investigate the impact of networking on organizational performance in the Sri Lankan context. The main objective of this study is to find out the networking types practiced in the public sector and its effects on the performance of public sector organizations, especially in divisional secretariats.

The study examines the impact of the network on individual performance and organizational performance in a public sector organization. It reveals that networking has a positive impact on ensuring individual performance as well as organizational performance in the public sector. This is in line with the findings of Stoetzer, (2010). According to Stoetzer (2010), the interpersonal relationship has been identified as an important factor in the psychosocial work environment that could affect wellbeing, job satisfaction, performance and productivity. Furthermore, this study examines the key types of the network which are important in enhancing organizational performance in public sector organizations. Previous researches (Sparrowe et al., 2001; Cross & Cummings, 2004) have demonstrated direct relations between networking and several organizational outcomes, such as promotions (Burt, 1992). Moreover, the findings of the study revealed that there is a significant positive relationship between instrumental network, friendship network and knowledge network with performance.

Some researchers suggest that instrumental ties have positive implications for performance because they provide information, assistance, and guidance regarding task completion (Sparrowe et al., 2001).
Baldwin et al., (1997), found that instrumental ties have positive implications for job performance. Accordingly, this study findings of the instrumental network have positive impact on organizational performance is in line with literature and previous research findings (Lincoln & Miller 1979; Ibarra, 1993; Das & Teng, 1997).

In general, it can be observed that professionals with good interpersonal relationships perform well, compared to the ones with average interpersonal relationships (Johanson & Mattson, 1988; Dubini & Aldrich, 1991). This study shows that networks of divisional secretaries positively associate with their organizational performance. This finding is important for the government in taking the decision regarding the selection of suitable SLAS officers to be appointed as Divisional Secretaries (DS). According to the literature, networking results in increased performance and finally, it creates a number of positive results for the organization. Therefore, the findings of this study can be used in public sector organizations for quality increases, cost decreases, capability increases, capacity increases, knowledge increases, skills increase and, Identity and motivation increases.

Public sector employees are provided with different types of training to build their capacities. There are public sector training institutes such as SLIDA, Miloda, Sri Lanka foundation institute etc. which specialise in providing public sector executive training. As a public sector employee, the divisional secretary works with a broader scope and has to maintain relationships with various levels, different people, different organizations and societies. DS needs training in relation to the social network. Therefore, this research finding are important for training institutes in developing research modules, Training policies and programmes. Although there are several studies (Wasserman & Faust, 1994; Profiroiu, 2001; Hoang & Antoncic, 2003) conducted on the network within organizations in the world, it was difficult to find out literature related to the impact of network types on performance of government organizations and related studies. There is a research gap of networking and organizational performance in the Sri Lankan context. According to Chung and Hossain, (2009) relatively few studies have explicitly taken professionals and examined the link between the network and organizational outcomes. Consequently, this study enriched with the subject area, this study has filled the research gap. As this study revealed that, networking is an inevitable factor which affects organizational outcomes of public sector employees, and these findings can be used by responsible authorities such as the Ministry of Home Affairs, District Secretaries, and Provincial Councils for their purposes such as placements, transfers, policy development, training need analysis etc.

6. FUTURE RESEARCH AND RECOMMENDATIONS:

This study reveals that there is a scarcity of related literature; therefore, there is a need to conduct research for the enrichment of literature in relation to social network and performance in public sector employees in the Sri Lankan context. It is hard to find research on the association of types of the network
on organizational performance of public sector organizations. Therefore, it essential to conduct future research on the impact of network types and performance of other organizations except for divisional secretariats. These studies rely on the data collected only from divisional secretaries. It did not collect data from others such as superiors, subordinates, core workers and customers who practice network with divisional secretaries. But in future research, it should be done by collecting data broadly to get a more accurate and broader picture.

7. REFERENCES:

[1]. Andersen, P. H. (2006). Listening to the global grapevine: SME export managers' personal contacts as a vehicle for export information generation. *Journal of World Business*, 40 (1), 81 – 96. doi.org/10.1016/j.jwb.2005.10.006

[2]. Anderson, C.M. & Martin, M.M. (1995). Why employees speak to coworkers and bosses: Motives, gender and organizational satisfaction. *The Journal of Business Communication*, 32, 249 – 265. doi: 10.1177/002194369503200303

[3]. Baldwin, T. T., Bedell, M. D., & Johnson, J. L. (1997). The social fabric of a team-based M.B.A. program: Network effects on student satisfaction and performance. *Academy of Management Journal*, 40, 1369-1397. doi.org/10.5465/257037

[4]. Birley, S. (1985). The role of networks in the entrepreneurial process. *Journal of Business Venturing*, 1 (1), 107 – 117.

[5]. Borman, W. C., & Motowidlo, (1997). Task performance and contextual performance: The meaning for personnel selection research. *Human Performance*, 10 (2), 99 – 109. doi: 10.1207/s15327043hup1002_3

[6]. Bourdieu , P., & Wacquant, L.J.D. (1992). *An invitation to reflexive sociology*, Chicago: University of Chicago Press.

[7]. Brass, D. J. (1995). *Creativity: It’s all in your social network*. In C. M. Ford & D. A. Gioia (Eds.), Creative action in organizations. London: Sage.

[8]. Büchel, F. (2000). The Effects of Over Education on Productivity in Germany - The Firms' Viewpoint, IZA Discussion Papers, No. 216, Institute for the Study of Labor (IZA), Bonn.

[9]. Burt, R.S. (1992). The network structure of social capital. *Research in Organizational Behavior*, 22, 345 – 423.

[10]. Burt, R. S. (1992). *Structural holes*. Cambridge: Cambridge University Press.

[11]. Campbell, D. T. (1960). Recommendations for APA test standards regarding construct, trait, or discriminant validity. *American Psychologist*, 15(8), 546–553.

[12]. Cascio, W. F. (2006). *Managing Human Resources: Productivity, Quality of Life, Profits*. New York: McGraw-Hill/Irwin.
[13]. Chamanifard, R., Nikpour, A. & Chamanifard, S. (2015). The effect of social capital on organizational performance: The mediating role of employee’s job satisfaction. *International Review of Management and Business Research*, 4 (3), 852 – 860.

[14]. Chenhall, R. H. (2003). Management control systems design within its organizational context: Findings from contingency-based research and directions for the future. *Accounting Organizations and Society*, 28, 127 – 168.

[15]. Cherniss, C. (1991). Career Commitment in human service professionals. *A Biographical Study Human Relations*. 44, 419-437.

[16]. Chung, K.S.K., & Hossain, L. (2009). Measuring performance of knowledge-intensive workgroups through social networks. *Project Management Journal*, 40 (2), 34 – 58.

[17]. Coleman, J. S. (1988). Social Capital in the Creation of Human Capital. *The American Journal of Sociology*, 94, 95 – 120.

[18]. Coviello, N. & Munro, H. (1997). Network relationships and the internationalization process of small software firms. *International Business Review*, 6 (4), 361 – 386. doi.org/10.1016/S0969-5931(97)00010-3

[19]. Cross, R. and Cummings, J.N. (2004). Tie and Network Correlates of Individual Performance in Knowledge-Intensive Work. *Academy of Management Journal*, 47 (6), 928 – 937.

[20]. Cummings, (2012). Your leadership style-how are you working to achieve a preferred future? *Journal of Clinical Nursing*, 21, 3325 – 3327. doi: 10.1111/j.1365-2702.2012.04290.x

[21]. Das, T.K. & Teng, B.S. (1997). Sustaining strategic alliances: Options and guidelines. *Journal of General Management*, 22 (4), 49 – 64. doi.org/10.1177/030630709702200404

[22]. Diamantopoulos, A. and Siguaw, J.A. (2000). Introducing LISREL. SAGE, NJ. doi.org/10.4135/9781849209359

[23]. Dubini, P. & Aldrich, H. (1991). Personal and extended networks are central to the entrepreneurial process. *Journal of Business Venturing*, 6 (5), 305 – 313. doi: 10.1016/0883-9026(91)90021-5

[24]. Ellis, P. D. (2011). Social ties and international entrepreneurship: Opportunities and constraints affecting firm internationalization. *Journal of International Business Studies*, 42 (1), 99 – 127.

[25]. Emerson, R.M. (1976). Social exchange theory. *Annual Review of Sociology*, 2 (1976), 335 – 362.

[26]. Farace, R.V., Monge, P.R., & Russel, H.M. (1977). *Communicating and organizing*. Menlo Park, CA, Addison-Wesley.

[27]. Ferron, M., Massa, P. & Odella, F. (2011). Analyzing collaborative networks in Enterprise 2.0: the Taolin platform. *Procedia Social and Behavioral Sciences*, 10 (2011), 68 – 78. doi: 10.1016/j.sbspro.2011.01.010

[28]. Gargiulo, M., Ertug, G. & Galunic, C. (2009). The two faces of control: network closure and individual performance among knowledge workers. *Administrative Science Quarterly*, 54 (2). doi.org/10.2189/asqu.2009.54.2.299
[29]. Homans, G. (1950). *The Human Group*. In: Holzer B., Stegbauer C. (eds) Schlüsselwerke der Netzwerkforschung. Netzwerkforschung. Springer VS, Wiesbaden. doi.org/10.1007/978-3-658-21742-6_63.

[30]. Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader–member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, 62 (6), 827 – 844. doi: 10.1037//0021-9010.82.6.827

[31]. Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, 78 (6), 1360- 1380.

[32]. Haenlein, M. & Kalpan, A.M. (2004), A beginner’s guide to partial least squares analysis, *Understanding Statistics*, 3 (4), 283 – 297. doi.org/10.1207/s15328031us0304_4.

[33]. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis (7th ed.).* Englewood Cliffs: Prentice Hall.

[34]. Harary, F., Norman, R.Z. and Cartwright, D. (1965). *Structure Models: An Introduction to the Theory of Directed Graphs*. Wiley, New York.

[35]. Hasle, P., Kristensen, T. S., Moller, N., & Olesen. K. G. (2007). Organizational social capital and the relations with quality of work and health- a new issue for research. *International Congress on Social Capital and Networks of Trust. Jyvaskyla, Finland.*

[36]. Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). *The use of partial least squares path modeling in international marketing*. In R. R. Sinkovics& P. N. Ghauri (Eds.), *Advances in international marketing*. Bingley, UK:

[37]. Hoang, H., & Antoncic, B. (2003). Network-based research in entrepreneurship: A critical review. *Journal of Business Venturing*, 18 (2), 165 – 187. doi.org/10.1016/S0883-9026(02)00081-2

[38]. Hollands, P.W. and Leinhardt, S. (1975). The statistical analysis of local structure in social networks. Sociological Methodology, Working Paper, Computer Research Centre for Economics and Management Science.

[39]. Huayou, S., Chen Z., Zhang, W. Wan, J. & Zhang, J. (2019). A member recognition approach for specific organizations based on relationships among users in social networking Twitter. *Future Generation Computer Systems*. 92, 1009 – 1020.

[40]. Ibarra, H. (1992). *Structural Alignments, Individual Strategies and Managerial Action: Elements Toward A Network Theory of Getting Things Done*. In N. Nohria & R. Eccles (Eds.), Networks and organizations: Structure, form and action: 165-188. Boston: Harvard Business School Press.

[41]. Ibarra, H. (1993). Personal networks of women and minorities in management: A conceptual framework. *Academy of Management Review*, 18 (1), 56 – 87. doi: 10.2307/258823

[42]. Johanson, J., & Mattson, L. G. (1988). *Internationalization in industrial systems - A network approach*. In I. Hood, & J. E. Vahlne (Eds.), Strategies in Global Competition, New York, NY: Croom Helm.

[43]. Jöreskog, K.G., Wold, H. (1982). The ML and PLS technique for modeling with latent variables: Historical and comparative aspects. In: Jöreskog, K.G., Wold, H. (eds.) Systems under indirect observation, Part I (pp. 263–270).
[44]. Lane, J.E. (2005). *Public administration and public management: The principle-agent perspective*. Oxon, Routledge.

[45]. Leedy, P. D. & Ormrod, J. E. (2010). *Practical research: Planning and design* (9th ed). Upper Saddle River, NJ: Pearson.

[46]. Karahanna, E. & Straub, D.W. (1999). The psychological origins of perceived usefulness and ease-of-use. *Information & Management*, 35, 237 – 250.

[47]. Kelinger, F.N. (1986). *Foundations of Behavioral Research*. 3rd edn. Holt Rinehart and Winston.

[48]. Krackhardt, D. & Kilduff, M. (1990). Friendship patterns and culture: The central of organizational diversity, *American Anthropologist*, 92 (1), 142 – 154.

[49]. Lohmooller J.B. (1989). *Latent Variable Path Modeling with Partial Least Squares*. Physica, Heidelberg.

[50]. Monge, P.R. & Noshir, S. C. (2003). *Theories of Communication Networks*. New York: Oxford University Press.

[51]. Motowidlo, S. J., & Van Scotter, J. R. (1994). Evidence that task performance should be distinguished from contextual performance. *Journal of Applied Psychology*, 79 (4), 475 – 480. doi: 10.1037/0021-9010.79.4.475

[52]. Obakpolo P. (2015). Improving Interpersonal Relationship in Workplaces. *IOSR Journal of Research & Method in Education*, (IOSR-JRME), 5 (6), 115-125.

[53]. Powell, W.W. & Smith-Doer, L. (1994). Inter-organizational collaboration and the locus of innovation: Networks of learning in biotechnology. *Administrative Science Quarterly*, 41 (1996), 116 – 145.

[54]. Reinhartz, W. J., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of Research in Marketing*, 26(4), 332–344.

[55]. Rigdon, E. E. (2012). Rethinking partial least squares path modeling: In praise of simple methods. *Long Range Planning*, 45(5–6), 341–358.

[56]. Šašovová, Z. (2006). Liking and disliking: the dynamic effects of social networks during a large-scale information system implementation. Dissertation 30 June (2006), Free University Amsterdam.

[57]. Segars, A.H. & Grover, V. (1993) Re-examining perceived ease of use and usefulness. *MIS Quarterly*, 17, 517 – 525.

[58]. Shah, H.A., Yasir, M., Majid, A. & Javed, A. (2019). Impact of networking capability on organizational survival of SMEs: Mediating role of strategic renewal. *Pakistan Journal of Commerce and Social Sciences*, 13 (3), 559 – 580.

[59]. Sherif, M. (1958). Superordinate goals in the reduction of intergroup conflicts. *American Journal of Sociology*, 63, 349-356.

[60]. Siias, P.M. (2008). *Organizing relationships: Traditional and emerging perspectives on workplace relationships*, Thousand Oaks, CA: Sage
[61]. Sparrowe, R. T., Liden, R. C. & Kraimer, M. L. (2001) Social networks and the performance of individuals and groups. *Academy of Management Journal*, 44(2), 316-325.

[62]. Stannack, P. (1996). Perspective on Employees Performance. *Management Research News*, 119(4/5).

[63]. Stoetzer, U. (2010). Interpersonal relationships at work: organizational working conditions and health, PhD thesis, Karolinska Institute, Stockholm, Sweden.

[64]. Van Dijk, Jan (2006). *The Network Society: Social aspects of new media*, Second Edition. London, Thousand Oaks, New Delhi: Sage.

[65]. Völckner, F., Sattler, H., Hennig-Thurau, T., & Ringle, C. M. (2010). The role of parent brand quality for service brand extension success. *Journal of Service Research*, 13(4), 379–396.

[66]. Wasserman, S., & Faust, K., (1994). *Social Network Analysis, Methods and Applications*, Cambridge University Press.

[67]. Wegner, D. M. (1995). A computer network model of human transitive memory. *Social Cognition*, 13, 319–339.

[68]. Werner, J. M. (2000). Implications of OCB and contextual performance for human resource management. *Human Resource Management Review*, 10(1), 245-261.

[69]. Wold, H. (1982). *Soft modeling: The basic design and some extensions*. In K. G. Joreskog & H. Wold (Eds.), Systems under indirect observation: Causality, structure, prediction. Part II (pp. 1-54). Amsterdam: North-Ho.