Islamic Religiosity and Social Capital: Evidence from Jordan

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Abstract

In social science, there has been an increasing attention on Muslim identity and on the importance of religious group's memberships in shaping individuals' social behavior in contexts predominantly Islamic (Hopkings 2011). Inspired by this emerging literature, this paper aims to explore which aspects of the Islamic religiosity affect social capital in Jordan. This research question is driven by distinctive crucial motivations. Firstly, since the seminal work of Putnam (1993), social capital, as elements of trust, cooperation and reciprocity among the members of a community has been considered a valid device for improving the institutional quality and the democratic aspects of a geopolitical context. Secondly, religious rules can be viewed as behaviour filters helping individuals to understand, cooperate and trust each other (Smith, 2007, p.1). Thirdly, The Jordanian society reflects an appropriate example of collectivistic culture where the dominance of in-group over out-group ties causes the members to feel uncertain about strangers' intentions and, hence, reduces social trust and social capital (Yamagishi and Yamagishi 1994). Furthermore, Jordan is a geopolitical context predominantly Islamic (92% of the population) with a relatively high politico-institutional stability unlike other Middle-East regions. The empirical analysis uses secondary data collected from the third wave of the Arab Barometer (2012-2014) with various questions about individual's attitude towards Islamic religiosity including, among the many, frequency of praying and attitude towards the Prophet's teaching and the Quran. The variables of social capital include social trust, civic participation and being involved in online social network. Preliminary results from the logistic regressions show that aspects of Islamic religiosity such as being a Friday prayer and a prophet's teaching follower are negative predictors of social trust but not of civic participation. Instead, a positive attitude toward the right of religious minorities to practice their religion freely is positively associated to social capital.

1. Introduction

1.1. Background

Social capital is becoming an increasingly important factor particularly when considering the role of trust and the community and its wider effects on the economy and society (Harris et al., 2015). Religion on the other hand is under increasing scrutiny, Islam in particular is the focus of much public criticism and is often associated with extremist ideologies and groups such as ISIS, Boko Haram and al-Qaeda in mainstream media (Ganji, 2015). Nonetheless, the Quran remains of central importance for many Muslims. It is a source from which law is derived in the Muslim world and is a point of reference for many as it is used to guidance through life and navigating the modern world in which we live in for Muslims; so can the messages in the Quran, a book that is over 1400 years old still have relevance today? This study will attempt to explore the influences of religion, particularly Islam on social capital.

According to the definition provided by the OECD social capital are the "links, shared values and understandings in society that enable individuals and groups to trust each other and so work together" (Keeley, 2007; p. 103). Social capital as a concept is relatively new and only recently has it attracted greater attention within the field of social sciences. As scholarly interest grows, a number of different opinions have emerged which makes the concept of social capital open to confusion (Field, 2008). Nevertheless, there is still some agreement on the central components of this concept. The key definitions underline and point to the importance of social networks and civic norms (Healy, 2001). Field (2008; p. 1) supports this notion and sums this definition up in two words stating that "relationships matter". However, perhaps the most famous of all proponents within the field is Robert Putnam whose study into civic traditions in Italy can be credited for putting social capital firmly on the map. He referred to social capital as

> *"Features of social organization, such as trust, norms, and networks, that can improve the efficiency of society by facilitating coordinated actions"(Putnam et al., 1994; p. 167).*

Putnam (2000) later went on to consider the concept as an individual and public good simultaneously, as its creation is a result of social interactions providing benefits not only for its originators but also for those who are involved in it and the bystanders. Also, social capital

is an indivisible public good as it is non-exclusive while the benefits it provides for society cannot be restricted and thus all members of a community have an indiscriminate access to it (Woolcock, 2001).

Putnam (2000) proposed three aspects of social capital, namely generalised trust, civic participation and informal social networks. These measures of social capital are employed in the current study. Generalised trust is proposed to be necessary for prosocial behavior. Collectivist societies, such as Jordan tend to indicate higher levels of generalized trust than individualistic societies (Irwin, 2009).

Previous studies argue that religion plays a significant role in social capital. According to Deneulin & Bano (2009, p.15), religion plays an extremely important role in stimulating welfare work and the provision of social services in the developing world. Religion-driven charitable contributions remain "the most significant non-state providers of basic social service" in addition to encouraging civic engagement. Yeary et al. (2014) found that religion had a significant effect on social capital and even an indirect effect on health of the surveyed respondents. The study also used control variables such as respondents' age and income, which were also found to be significant. Smidt (2003) argued that religion in the US played a major role in both social capital and democratic development of the society. Akbari (2013) asserted that religiosity had a significant influence on discipline and moral characteristics of respondents, which determined a significant relationship with social capital as well. In the context of European countries, Kaasa (2012) argued that the relationship between religion and social capital was very complex. For example, the effect of religion on cognitive dimensions was found to be much stronger compared to structural dimensions of social capital. This dissertation will contribute to the previous literature by bringing up the evidence on the link between religiosity and social capital in the context of Jordan, which has not been previously studied in great detail.

1.2. Aim and Objectives

The aim of this work is to investigate the relationship and impact of religiosity on social capital in Jordan. This is achieved using secondary data analysis based on the III Wave Survey for Jordan provided by Arab Barometer (2016). The objectives are:

- To examine the effect of religiosity on generalised trust of respondents in Jordan;
- To test the effect of religiosity on civic participation in Jordan;
- To evaluate the effect of religiosity on informal social networking of respondents from Jordan.

These three objectives represent three areas of social capital, namely generalised trust, civic participation and social networking, distinguished by Putnam et al. (1994) and Putnam (2000). The dissertation employs secondary data from Arab Barometer (2016) to attain the research aim. The data retrieved from the survey is researched using the multiple linear regression analysis in which social capital dimensions serve as dependent variables and the degree of religiosity is used as independent variables. The significance of the estimated coefficients is measured by the t-statistic and its p-value. The fit of the regression line is measured by the coefficient of determination. The analysis includes the descriptive statistics, graphical analysis as well as diagnostic tests run in SPSS.

1.3. Outline of Dissertation

The research is organised as follows. The second chapter reports the findings of previous investigations on the influence of religious factors on social capital. The third chapter is dedicated to methodology where the research design is described, data sources and employed variables are listed, the working hypotheses and the empirical model are constructed. The fourth chapter provides the findings of the analysis conducted using the ordinary least squares (OLS) cross-sectional regression. The fifth chapter concludes the work by briefly summarising the outcomes of the study, comparing them to the results of the research performed by other authors and listing the limitations of the research and recommendations for developing the study further.

2. Literature Review

2.1. Introduction

This chapter starts with the definition of the concepts of social capital and examines its theoretical link with religiousness. Then, the chapter critically discusses the literature on the topic of social capital. Specifically, the gaps in literature are identified and the discrepancies in the findings of academic scholars are detailed. The chapter includes an analysis of the measures of social capital, since there is no consensus on the best indicators of this concept. Then, an investigation of the factors that determine social capital according to literature is performed. Finally, the chapter narrows down to the topic of this dissertation and explores the literature that linked social capital to religiousness.

2.2. Concepts and Definitions

A common and universally accepted definition of social capital is missing, as different approaches and focuses may imply various definitions. For example, social capital can be explained from the viewpoint of children's education. So, it is defined as the norms, social networks and relationships across adults and children that are important for the child's growing up. From this perspective, social capital exists both within a family and in the community (Coleman, 1990, p.334). On the other hand, social capital can be viewed as the characteristics of social life, such as networks, norms and trust. These features should enable participants to act together with a higher effectivity to achieve shared objectives (Putnam, 2000, p.55). Nevertheless, despite the dispute with respect to definition, the key concept of social capital is generally accepted. It is related to interpersonal relationships and assigns value to individuals and groups. At the same time, any capital can be considered to be an asset that can create benefits or value for individuals in the future (Davis and Bartkus, 2009, p.319).

Social capital can be defined as social organisation, since it incorporates various aspects of human interaction. It is a way to determine the intangible resources of community, including trust and shared values (Field, 2008, p.7). At the same time, social capital can be constructed of such concepts as financial capital, physical capital, and human capital, where all these factors are included in relations across people (Coleman, 1988, p.95).

Under any definition social capital can be referred to as resources that shape the relationships among actors, although they could have been constructed in different contexts. This definition of social capital includes the major concepts, namely social networks and resources. These

concepts do not have any empirically testable theorems, and thus they are difficult to operationalise. Nevertheless, social capital theory assumes some aspects that can allow for measuring social capital within a society. Particularly, social capital can be a public or individual good that can be theorised at the micro and macro levels of the society. Social capital relationships feature various characteristics, such as trust, authority, and norms of social organisation. The characteristics include information potentials that are the basis for access to resources. The resources incorporated into these various structures may create benefits for different actions (Hauberer, 2011, p.51).

Social capital theory distinguishes between two key dimensions: bonding and bridging. Bonding social capital implied intra-group or internal bonding across homogeneous relationships within a family or community. Bonding social capital promotes reciprocity and mobilises solidarity. Bridging social capital involves the relationships with diverse social groups or heterogeneous relationships across different families or communities. Bridging social capital can mobilise external resources and information diffusion (Chong and Ng, 2010, p.75). However, all dimensions of social capital can be linked to social networks and trust (Koniordos, 2005, p.20).

The need of people to create communities can be explained from the viewpoint of game theory. Human interaction can be represented as an array of 'reciprocity games' where cooperation is beneficial but fragile. Sometimes reciprocity can be mediated through money, such as in the cases of market transactions. When money is not applicable, cooperation is determined by a matrix of attitudes and expectations that the agents hold towards each other. These interactions can also be interpreted as 'social capital' (Smith, 2007, p.1). In addition, religion is able to affect these attitudes and expectations, and thus create social capital. At the same time, the development of social capital can be mitigated by diverse communities (Arneil, 2006, p.25; Bilefsky, 2003, p.1).

People are interdependent, and their lives are characterised by opportunities to benefit each other. Besides, there are needs and desires that require the assistance of others for their fulfilment. If one person is able to help another at some cost that is less than the benefit for the other will enjoy, it is socially desirable for transaction to take place. The issue is in making the desirable action individually rational for the person who helps. When money is not able to solve the problem, social capital may. While game theory would lead us to assume all agents

act rationally, religion can promote social capital and sanction an individual's behaviour. Stable social ties, trust in each other, and a feeling of altruism motivate them to help each other and develop habits of constant cooperation. Meanwhile, regular religious participation creates a context for social ties, as religious activity 'for the community' induces the formation of social capital. Religious rules can be viewed as behaviour filters that help people to understand and trust each other (Smith, 2007, p.1).

2.3. Empirical Evidence

2.3.1. Indicators of Social Capital

Social capital can be measured by different constructs, but also may have different outcomes. For example, a study by Harris et al. (2015, p.1) examined the case of Jordan and showed that social capital affected the practice of management, whereas capital was represented by networking behaviour, trust, and shared norms. Sabatini (2009, p.429) empirically developed alternative three types of networks. These included strong family ties, strong and weak ties of friends, and weak ties that connected people of different socio-economic backgrounds. The factors that contributed to social capital included civic awareness and social participation, although these were associated only with the bridging social capital. Meanwhile, interest in politics and public affairs was found to be negatively related to bonding social capital. The findings of the research were limited to the regions of Italy, although some of the observations can be attributed to other countries.

Perhaps a closer example to the case of Jordan was research conducted by Andriani et al. (2009, p.25) that explored the context of Palestinian territories. The study showed that social networks were associated with food security. The research linked food policies to social capital endowments and concluded that the issue of poverty could be addressed through interventions on education as one of the factors of improved social capital. Although the study was limited to Palestine, the evidence can be applicable to its neighbouring regions, such as Jordan, however the case of Palestine is a somewhat isolated one given the peculiar circumstances brought about by the occupation.

An alternative investigation of the determinants of social capital was undertaken by Kaasa ad Parts (2008, p.145). The study analysed several European countries and demonstrated that the determinants of social capital were substantially different across transition and non-transition

economies. Thus, the research underlined the importance to explore each country separately in terms of the factors that can be the sources of social capital. This research contributes to literature in this respect by analysing the case of Jordan.

The determinants of social capital may be different as various measures of social capital are identified. For example, van der Gaag and Snijders (2003, p.1) captured four different measures of social capital, namely prestige social capital, network extensity, network diversity, and availability of concrete resources. Moreover, these groups of indicators had different predictive values on various outcomes of social capital. Thus, the authors underlined the need to develop various constructs of social capital when analysing its effects or determinants in different contexts or its relationships with different factors. Nevertheless, the research did not focus on the factors that could create social capital, and this limitation is addressed in this study. Meanwhile, a research by Appel et al. (2014, p.398) demonstrated substantial divergence in approaches to measuring social capital in various studies and fields. Thus, the authors questioned the validity of the research on the topic of social capital. The established and structural measures of social capital normally included position and resource generators. Non-structural social capital was represented by the Internet Social Capital Scales (ISCS) that reflected several psychometric scales normally applied to estimate social capital. Non-structural measures did not converge with structural measures in terms of bonding and bridging social capital. Thus, the two approaches measured different concepts. The ISCS failed to measured perceived or actual social capital, but rather combined social capital with some constructs of social support and attachment. However, the research was limited to the IT contexts, whereas a research of other fields should contribute to studies.

Another research in this respect was performed by Keele (2005, p.139) who emphasised the role of social capital in collective well-being. The author also noted that better measures of social capital were required to examine any kinds of causality between different components of social capital. The study developed macro measures of social capital by developing longitudinal measures of interpersonal trust and civic engagement. The measures were applied to test the basic assumptions about social capital, and these new measures contributed to knowledge about complex causes and effects of the concept. Nevertheless, the research lacked explanatory evidence in terms of the determinants of social capital. In addition, Muenning et al. (2013, p.18) found that social capital can have different outcomes depending on the measures of social capital applied. The authors analysed the effects of five measures of

structural social capital on physical health. The findings revealed that the applied measures of social capital failed to predict significant changes in the dependent variables. Meanwhile, the most prominent constructs of social capital were belonging to organisations or attending church. At the same time, visits to neighbours were insignificant in various model specifications.

Generalised trust is considered to be one of the best predictors of pro-social behaviour. For example, Rothstein and Stolle (2008, p.441) showed that generalised trust is created by citizens themselves through a culture that penetrates the organisations and networks of civil society. The authors demonstrated that trust was mostly observed in societies with effective, impartial, and fair street-level bureaucracies. However, the approach was rather limited as it concentrated on institutional features linked to formal political and legal factors. Meanwhile, an alternative approach to the concept of generalised trust as an indicator of social capital was selected by Bouchillon (2014, p.506). The study took into account social ties and found that having strong social ties, representing bonding social capital, promoted generalised trust. However, these findings contradicted conflict theory. The study provided evidence that there was no association between bridging social capital and trust. Civic engagement was positively related to trust through the levels of bonding social capital.

2.3.2. Determinants of Social Capital

The impact of neighbourhood on individual social capital can also be significant, according to the assumptions of Lindstrom et al. (2002, p.1779). The authors empirically tested social capital through social participation and estimated a multilevel logistic regression. The study showed that neighbourhood factors indeed could account for the variance in social participation. Besides, the research confirmed that social capital was an important factor for the health of the population, as well as for health equity. However, the research examined a highly specific context, namely Malmo in Sweden. This dissertation extends the observations about the determinants of social capital to the context of another country. Meanwhile, a more extensive range of factors that could affect social capital was examined by Hanibuchi et al. (2012, p.229), although the researchers also limited their investigation to a single country, namely Japan. The study examined how neighbourhood walkability, date of community settlement, and degree of organisation were related to social capital. The findings revealed that the walkability score did not influence the applied indices of social capital. Nevertheless, community age and degree of

organisation were related to the majority of social capital indicators. Thus, the study showed that social capital could be linked to the broader geographic and historical contexts, rather than to the proximal built environment.

In contrast to Lindstrom et al. (2002, p.1779) and Hanibuchi et al. (2012, p.229) who undertook single-country analyses, a research by Christoforou (2005, p.1) performed a comparative investigation. The author examined the factors that determined social capital in Greece in comparison to other countries of the European Union (EU). Social capital was determined as the stock of social relations, shaped by norms, cooperative networks, and trust. The study regressed an index of individual group membership on several individual and aggregate factors of social capital. The findings demonstrated that both institutional and individual factors affected group membership. Differences across countries could be attributed to historical and cultural peculiarities. Meanwhile, another research by Christoforou (2011, p.699) captured other determinants of social capital across Europe. The findings showed that individual factors, such as gender, age, income, marital status, education, employment, and aggregate countries' characteristics, including GDP per capita, social trust, unemployment, corruption, income inequality, affected social capital.

2.3.3. Role of Religion

Religion plays an important role in societies, as it may affect such societal aspects and concepts as acceptance of corruption (Gouda and Park, 2015, p.184), democracy (Nettler and Marquand, 2001, p.10; Putnam et al., 1994, p.105), and development processes and outcomes (Deneulin and Bano, 2009, p.5). This sub-section further examines empirical studies about the role of religion in shaping social capital.

The importance of social capital and its link with religion was emphasised by the investigation of the impact of these aspects on health (Yeary et al., 2012, p.331). Empirical investigation based on the 2006 Social Capital Community Benchmark Survey examined whether social capital could play a mediating role in the religion-health relationship. The findings revealed that the indirect impact from religion to social capital onto health was significant. The direct link from religion to self-reported health was significant as well, which confirmed the role of social capital as the mediator in the religion-health relationship. Among other demographic variables explored only age and income were statistically significant determinants of self-

reported health. Another evidence with respect to the link between social capital and health was provided by Younsi and Chakroun (2016, p.371). The authors examined the Middle East and North Africa (MENA) region and showed that there was bidirectional causality from social capital to health and from health to social capital. Besides, individual-level social capital was a stronger determinant of health, while community-level social capital was less prominent. These studies underline the importance of the analysis of the determinants of social health, as well as of the link between social health and religion.

An empirical investigation conducted by Ebsyne and Furrow (2008, p.34) applied social capital theory to examination of a conceptual model investigating socially embedded religious effects on moral outcomes. The research was based on a three-dimensional model and revealed how social interaction, trust, and shared vision promoted the impact of social ties related to religiousness on moral behaviour. The findings confirmed that religiously active youths reported higher levels of social capital resources. Furthermore, the impact of adolescent religiousness on moral behaviour was moderated by social capital resources. However, the research was based on a limited number of respondents, as less than 30 participants took part in the semi-structured interviews. A survey of a larger number of respondents was undertaken by Chasemi and Amiri (2011, p.21). The authors examined around 400 respondents in an Islamic community. The findings demonstrated that religiousness significantly affected social capital. Such dimensions of religiousness as religious beliefs and ideological dimension had the strongest impact on social capital. Weaker effects were demonstrated by other aspects, including ritualistic, consequential, and experimental dimensions. However, the study was limited to one city of Iran and was focused on citizens who had been 15 years old.

A more extensive research that was not limited to a particular city or religious context was performed by Alexander (2007, p.368). The author examined the factors that could determine the differences in the levels of social capital across the United States. The analysis demonstrated that the strongest determinants of the levels of social capital were economic and social differences between the states. These differences were related to education, church membership, unemployment, and farming. Church membership can be interpreted as one of the attributes of religiousness, so the study confirmed the significance of the link between religiousness and social capital. The investigation also demonstrated that diversity and social capital were not associated to any significant extent. Meanwhile, a research by Hopkins (2011, p.528) expanded the findings by providing theoretical explanations of the link between

religious identifications and social capital. The author examined Islam and Muslim identities and attempted to explain group relations. The study showed that reciprocal relationships characterised by trust and reciprocity could create forms of social capital that promote civic integration. Nevertheless, the understanding of the collective identity by group members determined how social networks were used and relationships developed. In addition, further empirical analysis based on interviews underlined the importance of investigating social actors' personal theories of social capital.

An interesting approach to the analysis of the link between social capital and religion was chosen by Bramdat (2005, p.201). The study explored several events, such as the events of September 11, 2001, to demonstrate the relationships between social capital and religion. The researcher focused on the type of 'bonding' social capital associated with exclusive and 'fundamentalist' kinds of modern religiosity. The findings suggested that religious violence was related to the relatively new tradition of marginalising, ignoring, and misrepresenting religion. Meanwhile, religious violence reflected bonding capital gone wrong. However, the study focused mostly on the Canadian perspective. The European context along with the UK in terms of the relationships between social capital and religion was explored by Weller (2005, p.271). However, in contrast to previous research, the authors took into account religious organisations rather than individuals. The key elements of social capital were represented by trust and cooperation. The study underlined the importance of religion as a form of identification. Additionally, the study demonstrated that religion could provide individuals and groups with a sense of belonging. This, in turn, could create connections between the local and the global, as otherwise destabilisation of social and personal fluidity of life could be observed.

The assumption that religiosity can create social trust and support norms of reciprocity was tested by Halman and Petterson (2002, p.65). The authors used the 1999/2000 European Values Study data from around 30 countries. In contrast to previous research, it was demonstrated that the link between social capital and religion was generally insignificant. Meanwhile, the link between social capital and religion could be moderated by state involvement. Traunmuller and Freitag (2011, p.253) tested whether state support of religion could create faith-based social capital through prominent resources for religious organisation. However, the study confirmed an alternative view that state support of religion did not promote faith-based social capital. Rather, evidence revealed that state involvement in religion was associated with weaker religious membership, donations, and volunteering. The finding can be explained by the view

that governmental support of religion can crowd out religious civic engagement because of transfer of responsibilities from citizens to the state. Meanwhile, the research lacked a focus between personal attitudes in terms of social capital and religion, which will be addressed in this dissertation.

A detailed investigation of the relationships between social capital and religion was undertaken by Kaasa (2013, p.578). The empirical study examined how different aspects related to religion were associated with various dimensions of social capital. The research was based on the recent European Values Study data, including numerous religion-related variables and all key dimensions of social capital. The author undertook both regression analysis and cluster analysis to examine religions composition and its impact on social capital. The findings revealed that religion was strongly associated with social capital. The cognitive dimensions of social capital had the strongest relationship with social capital compared to the structural dimensions. Furthermore, the research revealed that many relationships could be overlooked when not enough different religion-related aspects and social capital dimensions were taken into consideration. However, Beyerelin and Hipp (2005, p.995) revealed that social capital in communities does not necessarily benefit these communities. Particularly, the study demonstrated that the bonding networks evangelical Protestants promote in communities could be associated with crime rates. Countries with a greater percentage of residents affiliated with evangelical Protestants had higher crime rates compared to mainline Protestants and Catholics.

A focused study of the link between religiousness and social capital was conducted by Withnow (2002, p.669). The author explored whether religious involvement implied having influential friends or it was unrelated to this type of social capital. The study distinguished between bonding and bridging social capital and identified two types of bridging social capital, namely identity-bridging and status-bridging. The research explored the link between religious involvement and status-bridging social capital in the US. The findings revealed that members of a religious congregation had a greater probability to have friendships with elected public officials, scientists, corporation executives, and persons of wealth. The study also demonstrated that frequency of religious attendance was mostly uncorrelated with these proxies of social capital. Nevertheless, the research was limited by one dimension of social capital, whereas this dissertation examines social capital from a broader perspective.

Church attendance and membership of religious voluntary organisations as the reflections of religiousness can impact the formation of social capital, according to the assumptions of Stromsens (2008, p.478). The author also examined whether faith, membership and the level of active involvement were more important. The investigation demonstrated that religious involvement had a positive association with political engagement, tolerance, and social trust. However, membership of religious voluntary organisation did not influence social trust and tolerance of other societal groups. Nevertheless, different religions may have various effects on social capital (Martes and Rodriguez, 2003, p.171). Empirical findings demonstrated that Protestant and Catholic churches in Brazil communities in the Greater Boston had different effects on social capital. Protestant churches were found to be more effective for social capital formation. However, the investigation focused only on two religions, whereas future research on the effects of other religions on social capital may further contribute to existing literature.

Another research in this respect showed that simply attending church was not associated with social capital resources (Brown and Brown, 2003, p.617). The study examined church-based social capital resources, but only measured how they affected political activism of African-Americans. Thus, the research limited the measurement of social capital to voting and non-voting political activities, whereas the focus on alternative indicators could provide different results. The findings of Liu et al. (2009, p.576) were the opposite to the observations of Brown and Brown (2003, p.617). Specifically, the authors found that bonding and bridging social capital were significant determinants of white voting participation, whereas bonding social capital estimated through church attendance determined African-American voting participation. The specification of the authors' model included human capital as well, taking into account income and education, which can explain the differences between the findings.

The link between religiosity and social capital can be explored from a tri-dimensional viewpoint with an inclusion of voluntarism (Yeung, 2004, p.401). An empirical research focused on four groups, namely church volunteers, volunteers in church and other contexts, non-church volunteers, and non-volunteers. The findings revealed that religiosity influenced choosing between the four volunteer groups, whereas the groups maintained different types of social capital. However, the research of the direct relationships between religious beliefs and social capital without the introduction of a third factor can provide alternative outcomes. Akbari (2013, p.328) explored the linkage between religiosity and social capital using correlation and regression tests. The findings demonstrated that religiosity was significantly

related to social capital. Specifically, religion and religious beliefs of individuals were able to promote and utilise social capital. Nevertheless, the study was limited to the context of one university, whereas a broader research in this respect is required.

2.4. Summary of Literature Review

The chapter showed that the notion of social capital is subject to debate in literature in terms of various aspects of the concept. There is no single definition of the concept, but generally it can be described as social organisation, since it reflects trust and networks of individuals. The measures of social capital can also be different, and these measures depend not only on the types of social capital, which are bonding and bridging. The measures developed in empirical literature provide various outcomes in terms of the causes and effects of social capital. Furthermore, the determinants of social capital captured by empirical studies differ depending on the focus of research, contexts explored, approaches and specifications applied by scholars. Although the role of religion in the formation of social capital is confirmed by the majority of studies, there is limited evidence about the effects of Islam. Furthermore, there is evidence that the impact can be different across countries. This dissertation contributes to literature by analysing the context of Jordan and examining how social capital can be formed in the Muslim society.

3. Methodology

This chapter demonstrates the research paradigm that is observed throughout the investigation. The paradigm includes the concepts of research philosophy, approach, and design. Then, the data are presented by the explanation of the variables selected for the analysis, sources of the data, and sampling used. The third section of the chapter presents the methods that are further applied to analyse the data.

3.1. Research Paradigm

The researcher adheres to the philosophy of positivism when conducting the investigation. Research philosophy reflects the researcher's view on the phenomena observed. Positivism implies that the researcher prefers to rely on quantifiable observations that are not subject to multiple interpretations. That is, the investigation is based on a robust empirical analysis, and the findings of the study do not depend on the researcher. The philosophical approach of positivism assumes the independence of the researcher of the subject of investigation (Saunders et al., 2009, p.105). Thus, the research is considered to be purely objective. Minimal interaction of the researcher with participants and data is one of the peculiarities of positivism. The investigation rests solely on facts and considers the phenomena in the world to be objective and external.

A deductive approach is followed throughout the study. Deduction implies the development of hypotheses on the basis of existing theory. The research strategy is developed with an objective to test these hypotheses. Deduction means reasoning from the particular to the general (Bryman and Bell, 2012, p.99). It is assumed that if a causal relationship is predicted by a theory or a particular case example, it might also be observed in other cases. Thus, this investigation assumes that the relationships between social capital and religiosity observed in other studies (Stromsens, 2008, p.478; Kaasa, 2013, p.578) can also be found for the case of Jordan. Thus, deductive research approach means an investigation of a known phenomenon and testing the validity of this phenomenon in specific circumstances.

The research uses secondary data collected from the Arab Barometer survey. The use of secondary data allows the researcher to avoid ethical problems that could have been otherwise faced during the collection of the data. The investigation uses the data that are readily available online and the confidentiality of the respondents has already been observed. At the same time,

the use of secondary data allows for analysing a larger sample. This leads to a higher statistical accuracy of the results and thus increases the reliability of research findings.

Quantitative analysis is performed in the investigation, as the data are treated by statistical methods and the answers of the respondents of the survey are coded as numbers. Quantitative analysis contributes to the reliability of the research, since the outcomes are confirmed by t-statistics and its p-values. Furthermore, quantitative analysis is not subject to alternative interpretations that could have been inherent to a qualitative research. Therefore, the study observes the scientific aspect of research replicability and verifiability. The use of the same methods and same dataset by other scholars would lead to the same results. This confirms the validity of research findings.

3.2. Data and Variables

Religious beliefs of Islam are often misinterpreted nowadays because of the statements of extremist Islamic groups and the Arab regimes (Ganji, 2015, p.1). This dissertation develops the measures of religiousness and religiosity that go beyond conventional church-attendance measures, as well as the beliefs in the Quran as the manifesto of fundamentalist warmongers. In contrast, the independent variables are supported by the Quran's notions. Apart from direct measures of religiosity, such as attitudes to praying, rights to practice freely, self-assessment of own religiousness, frequency of payer, and tendency to follow the hadith, the study incorporates more general indicators, such as attitude to gambling and charging interest. Besides, the study includes control variables, such as gender, age, education, and employment.

The selection of gambling as an indirect mea sure of religiosity is motivated by the Quran. In the Shariah terminology any activity where gain and loss is obscure is referred to as Qimaar or Maisar. This factor is estimated by the question whether the respondents would buy a ticket should they have the chance to participate in a lottery. The choice of the attitude to bank interest payments as another independent variable is based on the concept of "*riba*" or usury that is prohibited by the Shariah. The attitude to "*riba*" is measured through the opinion of the respondents about the statement that banks charging interest contradict the teachings of Islam. The choice of these factors as the measures of religiosity of the respondents allows the researcher to go beyond direct measures of religiosity.

However, more direct measures are also taken into consideration. These variables include the acceptance of not praying, attitude towards difference and variation between Islamic scholars in terms of their interpretation of religious matters, attitude towards the right of religious minorities to practice their religion freely, self-assessment of own religiousness, frequency of praying, frequency of attending a Friday prayer, reading or listening to the Quran, and tendency to exemplify the prophet's teachings.

The independent variables are based on the constructs of social capital based on three categories according to Putnam (1994, p.105). The three aspects of social capital are generalised trust, civic participation, and informal social networks. The first independent variable is measured by the propensity of the respondents to consider most people as trustworthy. The independent variable used in the second model is based on informal social networks participation. Specifically, the variable is constructed on the basis of the respondents' participation social online services. These include interactive or dialogue-based groups or pages on social networking websites, dialogue forums on the internet, Facebook pages, Twitter accounts, and private blogs. The third independent variable developed for this research is based on civic participation of the respondents. It is based on the participation of the respondents in charitable societies; professional associations and trade unions; youth, cultural or sports organisations; family or tribal associations; cooperative associations; and other civil society organisations.

The data for the research is collected from Arab Barometer (2016). The sample of respondents includes citizens of Jordan and the dataset consists of 1,788 answers. The field period when the answers were collected was from December 2012 to January 2013. The sampling method was based on a national probability sample design that took into consideration adults of 18 years and older. The survey of the Arab Barometer was conducted face-to-face in Arabic. The sample consists of twelve strata that represent the provinces of Jordan. The interviews were proportionally distributed according to population size after further stratification by urbanity. Each province was divided into sampling units, and within each unit households were randomly selected. The majority of the respondents were interviewed in urban areas.

3.3. Method and Models

After the collection, estimation and arrangement of the variables and formulating working hypotheses the analysis continues with the development of the models that are used in the

research. The investigation is based on multiple linear regression analysis. The coefficients in the regression model are estimated using the method of OLS. This method of research is based on the estimation of the lowest squared residuals in the models. The assumption of the OLS regression is that the lowest squared residuals return the most accurate coefficients that represent the relationships between the predictors and the dependent variable. The regressions are run in SPSS software.

The study estimates three logistic regressions, where the independent variables are categorical. The general model can be expressed as follows:

$$SC_i = \beta_0 + \beta_1 Controls_i + \beta_2 Religiosity_i + \varepsilon$$

Where β is slope coefficient; i is respondent index; ε is error term; SC is social capital; Controls represent control factors; and Religiosity is the degree of the respondents' religiosity. The model takes into consideration several control variables and measures of religiosity. Thereby, the model can be further extended and expressed by the following equation:

$$\begin{aligned} SI_i; SO_i; Trust_i = {} & \beta_0 + \beta_1 Sex_i + \beta_2 Age_i + \beta_3 Educ_i + \beta_4 Work_i + \beta_5 Gamb_i + \beta_6 ObstPray_i \\ & + \beta_7 BankCh_i + \beta_8 Sch_i + \beta_9 Pract_i + \beta_{10} Self_i + \beta_{11} Pray_i + \beta_{12} AtttendPr_i \\ & + \beta_{13} List_i + \beta_{14} Proph_i + \varepsilon \end{aligned}$$

SI reflects civic participation as an aspect of social capital; *SO* is informal social networks participation; *Trust* is generalised trust. The control variables are represented by *Sex, Age, Educ*, and *Work*. The independent variables include *Gamb* reflecting the attitude to gambling; *ObstPray* reflecting the perception of not praying as an obstacle for marriage; *BankCh* is the attitude towards banks charging interest; *Sch* is the attitude towards scholars' interpretation of religious matters; *Pract* is the attitude toward the right of religious minorities to practice their religion freely; *Self* is self-assessment of own religiousness; *Pray* reflects whether the respondents pray daily; *AttendPr* shows whether the respondents attend Friday prayer; *List* shows whether the respondents listen to or read the Quran; and *Proph* shows whether the respondents' families exemplify the prophet's words and actions.

The analysis includes not only the estimation of the coefficients for each of the variables, but also the calculation of the fit of the regression through the coefficient of determination. Furthermore, the research applies diagnostic tests to confirm the accuracy of regression outcomes. Descriptive statistics is examined prior to the analysis to capture the characteristics of the data.

4. Findings and Analysis

The regression analysis is implemented in SPSS software. This chapter provides the output of the analysis, the main findings, results and their interpretation. The investigation consists of a frequencies statistics analysis, an analysis of correlations, and a cross-section regression analysis.

4.1. Frequency Statistics

The investigation starts with the analysis of the frequency statistics of the variables. Frequency statistics are used instead of descriptive statistics because the latter cannot be estimated for qualitative variables and the ones measured on ordinal or nominal scale. Frequency statistics expose how frequently a particular variant of answer could be observed in the questionnaires of the respondents. If the answer field in the questionnaire was left blank or respondents provided answers such as “8 – I don’t know” or “9 – Declined to answer” such responses were treated as missing values and ignored. The frequencies statistics are exhibited in a table form which allows for comparing the results of the variables (Table 1).

Table 1. Frequencies Statistics

	Meaning observations	Missing values	0	1	2	3	4
c_sex	1785	0	49.9%	50.1%			
c_age	1785	0		43.5%	49.4%	7.1%	
c_educ	1785	0	83.7%	16.3%			
c_work	1785	0	60.5%	39.5%			
trust	1747	38	76.5%	23.5%			
si	839	946	38.1%	61.9%			
so	1785	0	81.8%	18.2%			
r_gamb	1738	47		8.2%	13.7%	15.4%	62.7%
r_obst_pray	1774	11		50.4%	30.2%	10.3%	9.1%
r_bankch	1732	53		60.7%	28.2%	9.4%	1.7%
r_sch	1682	103		38.6%	48.7%	9.0%	3.7%
r_pract	1728	57		34.2%	49.7%	12.3%	3.8%
r_self	1777	8		39.6%	56.5%	3.9%	
r_pray	1783	2		76.4%	14.2%	7.0%	2.4%
r_attendpr	1765	20		67.5%	11.5%	8.6%	12.4%
r_list	1779	6		53.6%	24.9%	15.5%	6.0%
r_proph	1751	34		43.4%	37.0%	17.7%	1.9%

The total number of respondents from Jordan was 1,785 and the number of missing values for the variables appeared to be not critical. The only exception was the variable *si* where meaningful answers were contained in less than 50% of questionnaires. The frequencies statistics table reports that 50.1% of respondents in the sample were male and 49.9% female. In the age aspect, 43.5% of the polled were aged from 18 to 30, 49.4% had the age between 31 and 64, and 7.1% were 65 and older. Moreover, 16.3% of respondents had higher education or a scientific degree while 83.7% did not have higher education. 60.5% of the polled were not employed while 39.5% had a job.

Frequencies of dependent variables show that only 23.5% of Jordan respondents thought other people to be trustworthy while the opinion of the remaining 76.5% interviewees was that other people do not deserve to be trusted. At the same time, 61.9% of respondents had at least one account in internet social networks whereas 38.1% did not have any; 18.2% were members in at least in one social organization while 81.8% did not participate in any.

As for the variables expressing aspects of religiosity, in most cases respondents were inclined to answers that characterised higher degrees of religiosity. Expressing their attitude to lotteries, 62.7% answered that they would not participate on principle. For 50.4% it would be hard to accept a marriage of their close relative such as son/daughter or sister if his or her spouse did not regularly pray. Moreover, 60.7% had a negative attitude to banks charging interest as it contradicts with traditions of Islam. Over three quarters of the polled answered that they prayed every day, 67.5% attended services in mosques at least once a week and 53.6% were regularly listening or reading the scriptures.

However, such variables as an attitude to possibilities for religious minorities to practice their religion freely or accordance of people's lives to prophet's teachings revealed less expression of religiosity. Moreover, 39.6% of the respondents described themselves as religious while 56.5% called themselves religious only to some extent. In addition, 38.6% perceived a difference in interpretation of the Quran as good whereas 48.7% of respondents considered it good to a certain extent.

4.2. Correlation Matrix

Correlation between the explanatory variables should be estimated before the analysis to avoid the potential multicollinearity issue. Correlation is a statistically defined linear association

between two variables. A weak, mild and strong correlation can be marked out. An indicator of correlation is the correlation coefficient and the most widely used of them is the Pearson correlation coefficient. It can take values from -1 to 1. Values equal or close to -1 or 1 evidence the presence of a strong correlation when one variable is able to explain past and present values and predict future values of another variable with a high percent of probability. On the contrary, if the correlation coefficient is equal or close to 0, this is the case of a weak correlation when there is no association between two variables. In turn, mild correlation implies that there is some association between the variables but the extent to which one variable can explain or predict future values of another variable is not very high. A positive correlation coefficient means a presence of a direct correlation between the variables that is when one variable grows another variable grows, too. On the contrary, a negative value of the correlation coefficient implies reciprocal relationship when a growth of one variable entails a decline in another one.

Multicollinearity is a phenomenon when independent variables are strongly correlated between each other. Strong correlation is usually perceived to start approximately at the level 0.7 and higher. A potential issue in this case is that if variables having a pairwise strong correlation appear to be significant determinants of a dependent variable an individual influence of separate determinants on a dependent variable is hard to assess or it might be distorted by the impact of another variable in the pair. That is why if the presence of multicollinearity is detected, one of the variables from the pair should be omitted.

As the variables employed in the study are qualitative and measured on the ordinal or nominal scale, Kendall’s Tau rank correlation coefficient was applied to estimate the correlations between the explanatory variables. Kendall's Tau coefficient evaluates statistical connections relying on the ranks of the data. The positive association implies that the ranks of both variables are accordingly growing. In turn, the negative association implies that while the rank of one variable increases, the rank of the other one decreases.

A Correlation matrix of regressors is presented in Table 2.

One can see that no strong correlation between the regressors can be found in Table 2. While aspects of religiosity may have not been strongly correlated, their association was still obvious as religious people usually express religiosity not in single but in several ways simultaneously. That is why the pairwise association between most of the expressions of religiosity was significant at least at the 0.05 level. Accordance of people’s lives to the prophet’s teachings,

reading or listening to the Quran, attending services, daily pray and self-affiliation to religion are correlated with almost all the variables. Thus, this behaviour can be expressed as the most distinguishing aspects of religiosity in Jordan. Meanwhile, attitude to gambling, attitude to bank charging interest, acceptance of relative's marriage had lower correlation with other variables.

Table 2. Correlation Matrix

	c_sex	c_age	c_educ	c_work	r_gamb	r_obst _pray	r_bankch	r_sch	r_pract	r_self	r_pray	r_attendpr	r_list	r_proph
c_sex	1	.037	.019	.470**	-.034	.059**	.033	-.053*	.037	.145**	.214**	-.135**	.180**	.070**
c_age	.037	1	-.121**	-.031	.107**	-.061**	-.006	-.030	-.024	-.177**	-.215**	-.128**	-.189**	-.140**
c_educ	.019	-.121**	1	.205**	.040	-.005	-.017	-.043	-.027	.027	-.033	-.067**	.013	.000
c_work	.470**	-.031	.205**	1	-.002	.030	-.022	-.025	.038	.058*	.084**	-.095**	.073**	.024
r_gamb	-.034	.107**	.040	-.002	1.000	-.120**	-.081**	-.082**	-.043	-.103**	-.184**	-.134**	-.188**	-.074**
r_obst_pray	.059**	-.061**	-.005	.030	-.120**	1.000	.018	.045*	.000	.178**	.261**	.088**	.158**	.133**
r_bankch	.033	-.006	-.017	-.022	-.081**	.018	1.000	.139**	.126**	-.004	.133**	.137**	.146**	.054*
r_sch	-.053*	-.030	-.043	-.025	-.082**	.045*	.139**	1.000	.344**	.061**	.076**	.148**	.141**	.094**
r_pract	.037	-.024	-.027	.038	-.043	.000	.126**	.344**	1.000	.053*	.073**	.074**	.102**	.110**
r_self	.145**	-.177**	.027	.058*	-.103**	.178**	-.004	.061**	.053*	1.000	.366**	.236**	.385**	.319**
r_pray	.214**	-.215**	-.033	.084**	-.184**	.261**	.133**	.076**	.073**	.366**	1.000	.448**	.443**	.204**
r_attendpr	-.135**	-.128**	-.067**	-.095**	-.134**	.088**	.137**	.148**	.074**	.236**	.448**	1.000	.327**	.158**
r_list	.180**	-.189**	.013	.073**	-.188**	.158**	.146**	.141**	.102**	.385**	.443**	.327**	1.000	.313**
r_proph	.070**	-.140**	.000	.024	-.074**	.133**	.054*	.094**	.110**	.319**	.204**	.158**	.313**	1.000

* significant at the 0.05 level

** significant at the 0.01 level

Meanwhile, the connection between control variables, and aspects of religiosity and control variables is also interesting. The negative association between age and higher education is quite explainable as younger respondents would have fewer chances to have achieved higher education. At the same time, a negative correlation between age and employment is also expectable as about 50% of the polled were aged between 31 and 64 which is the most appropriate age to have a job. At the same time, the correlation coefficient is not large as the first age group, 18-30, was also represented by 43% of the interviewees and many respondents were quite young to have a job while the third age group, over 65, was likely to contain few people still employed. A positive but small correlation coefficient between higher education and employment implies that absence of higher education was not an obstacle to have a job while the percent of unemployed was higher among the respondents without higher education. Sex had a statistically significant correlation with almost all other variables which implies that males and females differently expressed their attitude to religiosity and differently behaved in

these aspects which can be detected statistically. Age also had a connection with the majority of variables, and this is the evidence that people of different age had distinct convictions about religion. At the same time, higher education and employment had less statistically substantial associations with variables expressing religiosity which may expose that many aspects of religiosity did not depend on employment and education level. No pairwise strong correlation between the independent variables was detected in the chosen sample. This implies that there was no need to omit any variables from the working model and all variables could be further employed in the analysis.

4.3. Empirical Analysis

Table 3 shows the empirical some interesting results. Trustworthiness to people was significantly influenced by acceptance of right to practice freely, age, accordance of people's lives to prophet's teachings, attending weekly services in a mosque or a church, perceiving an obstacle to relative's marriage if his or her spouse does not regularly pray and a constant.

Table 3. Regression Results

Variables	Trust		Si		So	
	B	Sig.	B	Sig.	B	Sig.
c_sex	.020	.891	.645***	.001	.793***	.000
c_age	.214**	.042	-.813***	.000	.125	.302
c_educ	.245	.134	.536***	.004	1.140***	.000
c_work	-.077	.595	-.300	.105	.710***	.000
r_gamb	-.011	.864	-.085	.321	.055	.467
r_obst_pray	-.132*	.053	.128	.141	-.004	.960
r_bankch	-.145	.102	.139	.230	-.101	.313
r_sch	-.141	.113	.090	.409	.053	.584
r_pract	.279***	.001	.061	.578	-.072	.458
r_self	-.185	.154	.248	.140	-.180	.222
r_pray	.141	.222	.039	.785	-.049	.710
r_attendpr	-.131*	.074	.059	.514	-.049	.584
r_list	.075	.366	.027	.792	-.039	.671
r_proph	-.185**	.036	.137	.213	.016	.864
Constant	-.804*	.073	.068	.907	-2.265***	.000

*** significant at the 0.01 level
** significant at the 0.05 level
* significant at the 0.1 level

The highest level of significance was detected between people trustworthiness and acceptance of the right of religious minorities to practice their religion freely in Jordan as the coefficient of this variable was significant at 1% level of statistical significance. Meanwhile, the significance of age and accordance of people's lives to prophet's teachings coefficients was limited to the 0.05 level. In turn, attending weekly services in a mosque or a church, perceiving an obstacle to relative's marriage if his or her spouse does not regularly pray and a constant were significant only at 1% level of statistical significance.

A positive association between people trustworthiness and acceptance of the right of religious minorities to practice their religion freely surprisingly implies that those who admitted that believers of other confessions also had the rights to practice freely were less inclined to trust people while those who disagreed with this statement were more likely to trust other people. A positive impact of age could be the evidence that the interviewees of the second and the third age groups were more likely to trust people than younger respondents, which was quite expectable. In turn, a negative association between accordance of people's lives to prophet's teachings with trustworthiness could also be in line with expectations that more religious people tend to trust other people to a larger extent than those who are not so close to religion.

The substantial factors for social interactions were sex, age and education. The significance of these variables was at 1% level of statistical significance. Meanwhile, the employment did not play a considerable role in defining the involvement of the Jordanians in communication via social networks. The influence of sex and higher education on social interactions was positive. This implies that male respondents were more likely to be involved in communication through internet while females were engaged in this kind of social interaction to a smaller extent. This may be explained as the consequence that women use internet more rarely because of cultural specifics and the status of women in Islamic society. Similarly, positive correlation between higher education and involvement in internet communication may imply that the Jordanians with having a magister degree or higher have a better access to internet technologies and are more competent internet users compared to the respondents having no higher education. At the same time, a connection between age and involvement in social interaction via internet was negative that is the younger the interviewees were the more actively they used information technologies (IT) for communication. This is totally in line with global tendencies that younger generation are much more advanced users of IT devices for communication and in particular remote and online communication than people of older generation aged at 40-45 and more. The correlation coefficient equal to -0.813 was the highest in absolute value among the statistically

significant coefficients which implies that this association was the strongest for the variable of social interaction.

Similarly to social interaction, sex and higher education appeared to be significant determinants of the social organisations variable. However, unlike the previous variable age was shown to be an insignificant factor of participation in social organisations while employment, on the contrary, was exposed to be substantial. Moreover, the constant also occurred to be a considerable determinant of participation in social organisations.

While age was the most significant factor of involvement into interaction via social networks, higher education had the strongest influence on participation in social organisations for the Jordanians with the coefficient equal to 1.140. This implied that people with higher education were much more likely to be members of at least one social organisation rather than those who did not have higher education. This implied that people with higher education were much more likely to be members of at least one social organisation rather than those who did not have higher education. This might be connected with a common level of social literacy of the respondents which was higher for people with higher education. At the same time, sex also had a positive impact on participation in social organisations. That is, male respondents were more likely to be members of such organisations than females. This also may be connected with the status of females in the Jordanian and, more commonly, Islamic society. Moreover, employment was another substantial determinant of participation in social organisations. That is, the employed respondents were also the members of different social organisations more often than those who did not have a job. Employed respondents may have a wider network of communication and more responsibility and thus a self-encouragement to take part in social organisations.

In summary, generalised trust represented by the variable trustworthiness to people had several determinants from the aspects of religiosity involved into the analysis. These included acceptance of right to practice freely, accordance of people's lives to prophet's teachings, attending weekly services in a mosque or a church, perceiving an obstacle to relative's marriage if his or her spouse does not regularly pray. Moreover, age was the only significant control variable. Determinants of social interactions and participation in social organisations were different as religious factors appeared to have no substantial impact on these measures of social capital in Jordan. At the same time, such control variables as sex, age and education were shown to be significant for social interactions whereas sex, education and employment were substantial factors of participation in social organisations.

5. Discussion and Conclusions

The findings of this study need to be compared to previous studies available in literature to find consistencies and differences. This is done in this chapter, and then final conclusions are stated along with recommendations.

5.1. Discussion

The analysis revealed religious factors to be significant determinants of social capital in Jordan to some extent. This result contradicts with the one of Halman and Petterson (2002) who found the influence of religion to be insignificant. The difference of the outcomes may be explained by the fact that Halman and Petterson (2002) explored a cross-country sample of 30 European countries which might have provided an average result for all countries whereas the current study explored a concentrated sample of a single country. In contrast to this, Weller (2005) underlined an importance of religion as a form identification as it provided the perception of belonging both for individuals and groups. The results of the current study to some extent accord with those of Weller (2005) although religious organisations rather than individuals and analysed such aspects of social capital as trust and cooperation.

On the other hand, the results of the study partly confirmed the conclusions of Kaasa (2013). The mentioned study found a strong association between religiosity and some aspects of social capital as well. However, the details of the study were different as Kaasa (2013) used cluster analysis besides the regression analysis also applied in the current study. Moreover, the study of Kaasa (2013) was conducted on the European Values Study data. Finally, unlike the current research, the study of Kaasa (2013) analysed such dimensions as cognitive and structural which were not discussed in the current research.

Another coincidence of research outcomes can be found between the current investigation and the one of Stromsens (2008). The author also investigated whether faith, participation in social organisations, and the level of active involvement were substantially determined by religious aspects. Similar to the current dissertation, his research revealed that religious engagement had a positive correlation with social trust. However, Stromsens (2008) also detected an association of religious involvement with political engagement and tolerance which was not exhibited to be significant in the current study.

Finally, the outputs of this study can be compared to the ones produced by Chasemi and Amiri (2011). Similar to the current research, the authors also examined respondents in an Islamic community. However, the results coincided only to a small extent. While the results of Chasemi and Amiri (2011) exhibited that religiousness substantially influenced social capital the main aspects of determination were religious beliefs and ideological dimension while the current research showed the practical aspect expressed by such variables as attending services and acceptance of the rights of religious minorities the most significant.

5.2. Summary of the Study

The aim of the study was to examine whether aspects of religiosity affected social capital in Jordan. The data for the research was taken from the results of the Arab Barometer survey conducted in the Arab countries during the period 2012-2014. Thus the qualitative data was employed for the analysis which could reduce the objectiveness of the received outcomes and influence their following interpretation. The measures of the religiosity were chosen in accordance with the questions of the survey which allowed for quantification of the respondent answers. The variables expressing aspects of religiosity included admittance of not praying be the relatives, position towards distinctions and variation in interpretation of religious affairs by Islamic scholars, position on the right of religious minorities to practice their religion freely, respondent self-assessment of own religiousness, periodicity of praying, periodicity of attending a Friday service in a mosque or a church, reading or listening to the Quran, and tendency to follow the prophet's teachings in everyday life. The aspects of social capital were taken in line with Putnam (2000) and included generalised trust, civic involvement and informal social networks. The variables expressing these aspects of social capital were people trustworthiness as a measure of generalized trust, social interactions measured by a presence of account in internet social networks, and membership in social organisations as a measure of civic participation.

The analysis of the correlation matrix revealed no significant correlation between the explanatory variables so there was no need to omit any variables from the working model to avoid multicollinearity. The F-test of the overall significance revealed that all three variants of the model had significant coefficients which implied that the working model better explained the data than the intercept-only model.

The regression analysis showed trustworthiness to people to be substantially affected by such aspects of religiosity as acceptance of right to practice freely, accordance of people's lives to prophet's teachings, attending weekly services in a mosque or a church, perceiving an obstacle

to relative's marriage if his or her spouse does not regularly pray. Among the control variables, age appeared to be a significant determinant of people trustworthiness.

As for the variables of social interactions and social organisations, religious aspect occurred to have no significant role. At the same time, control variables were significant determinants of these two factors. Sex, age and higher education were the factors substantial for social interactions whereas sex, higher education and employment had a noticeable influence on membership in social organisations.

Thus the outcomes of the research to some extent confirmed the findings of other authors such as Stromsens (2008) and Kaasa (2013) who conducted previous research on the effect of religiosity on social capital. At the same time, contradictions with the conclusions of Halman and Petterson (2002) and Chasimi and Amiri (2011) imply that the topic needs further research.

5.3. Limitations of the Study

The results of the research could have been substantially affected by the limitations of the study. The first restriction of the research was connected with the data sample applied for analysis. The focus of the Arab Barometer survey was on estimating people's positions on public environment, quality of governance, and social regulation in the Arab world. While the aspects of religiosity were covered quite well, it provided quite poor information on aspects of social capital. Therefore, only some aspects of social capital were analysed and received outcomes might not provide the whole pattern on the influence of religious factors on development of social capital in the Arab world. Moreover, a specific question of research entailed the choice of the data to be analysed in the study. It would be hard to find appropriate measures of social capital and religiosity with quantitative data available so qualitative data from the Arab Barometer survey was a compromise. Qualitative data is often less objective and contains people's subjective perception of reality which might distort the objectiveness of the outcomes. This, in turn, could potentially detect biased associations between the factors and incorrect interpretation, respectively.

5.4. Recommendations for Further Investigation

Understanding of the impact of religious factors on the development of social capital in Jordan can be improved by further research. One possible direction of enhancement of the results could be a comparison of the Jordanian outputs to the ones of other Arab countries. This would allow for detecting factors common for the whole Arab world and specific ones peculiar only to

Jordan. Another way is to modify the working model by adding other measures of social capital suggested by other researchers such as Alexander (2007), Chasemi and Amiri (2011) and Kaasa (2013). As the concept of social capital is quite blurred and different authors analysed its distinct aspects, inclusion of additional measures of social capital would contribute to explaining of the religion effect on social development in Jordan. Furthermore, as Jordan, like other Arab countries, belong to developing economies it would be interesting to assess whether religion has similar effect on social capital in developed economies and emerging countries. Besides, this would potentially detect the difference of this effect in Islamic and Christian cultures.

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