

Theory of Risk in Conventional Public Finance and Islamic Finance

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The research objective of the article is to extend the theoretical basis of risk management in the public and Islamic finance. The author hypothesizes that the existing theories of finance, the public choice theory, and the concept of New Public Management create insufficient conditions for risk management in the public finance sector entities and associated international structures of public-private partnership. As shown by the experience of recent years, the theory of financial markets as regards its operators has not yet developed a widely accepted model of risk management. In addition, the public choice theory and the concept of New Public Management do not fully illustrate the essence of risk management in the public sector, especially in capital structures where a private entity (Islamic investor) partners a public one. In Islamic finance, Sharia complaint instruments cannot be based on *gharar*, which is usually translated as risk, deception, delusion, and excessive uncertainty. The research methods mostly used in the article are analysis and critique of scientific literature with respect to risk of operation of public entities and risk in Islamic finance as well as public-private partnerships. The basic conclusion is that the adopted interpretations of risk in selected theories of conventional finance and the foundations of Islamic economy indicate that joint projects related to infrastructure are feasible.

Keywords: risk, Islamic finance, public finance theory, public private partnership, finance theory

Introduction

This paper aims at verifying selected scientific developments in the area of conventional and Islamic finance with regard to the treatment of risk. A hypothesis is adopted that the existing theories do not fully satisfy market requirements, in particular in the area of international public-private partnership (PPP) projects. The author's considerations provide grounds for interpreting the existing theories of finance in terms of risk acceptable to both Islamic and conventional investors. The presented scientific study presents the term of risk to allow its practical application to joint investments of both types of entities.

The hypothesis propels in-depth research of the global current scientific achievements in the area of the theory of risk management in public and Islamic finance, including international PPP structures. Thus increasing convergence of public and private markets, conventional and Islamic finance, it seems reasonable to develop the theory of risk management in public entities, also suited to organizational structures of international public-private partnerships where investors are Islamic institutions/corporate bodies. The development of

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existing theories would constitute a major refinement of the public choice concept. In a typical approach to this concept the market is better than the public administration where it is essential to satisfy the individual preferences of the members of the society, introduce advanced technology, and operate in an efficient and expeditious manner. Hence, public-private partnership would guarantee to meet the expectations of the community while maintaining the public entity's control of the quality and availability of public services provided. Moreover, the assessment of the quality of public services more often comes down to the actual changes in the community resulting from the activities of the public administration or public-private partnership. In practice, this could entail an increased sense of security in the community resulting from the awareness of identified and ensured responsibility of public entities for the consequences of their actions or inaction. The discussed research would therefore be a contribution to multi-faceted development of public and Islamic finance in PPP structures. Supplementing the theory of risk management in public entities and public-private partnerships in the future could first result in stimulated awareness of public entities about existing risk areas and methodologies for their management. Secondly it will allow for more understanding between parties where one is conventional and second Islamic.

Methodology/methods: The research methods mostly used in the article are analysis and critique of scientific literature with respect to risk of operation of public entities and risk in Islamic finance as well as public-private partnerships. The author shows the originality of the research problem concerning the inadequacy of existing risk theories to public or public-private partnerships and the need to correct them by means of new trends in the field of risk management in the public sector developed under research and Islamic finance investor involvement in international projects. This will allow for the verification of a hypothesis and the formulation of general scientific claims expanding existing theories in the study of finance for risk management in public entities and Islamic investors.

Literature Review

The essence of risk management in the theories of conventional and Islamic finance must be related to the definition of risk alone. It can be defined as a possible situation or event having specific, negative impact on the financial result of the project (Kowalczyk, 2001). Such an approach to risk makes it possible to include potential, threatened non-measurable events but also has an effect on the risk assessment methodology since it puts emphasis not on the qualitative but on the quantitative treatment of events (hazards). Uncertainty is never a positive aspect of the organisation of investment projects. However, it is actually impossible to reduce all uncertainties completely. Along with increasing uncertainty, the risk of impossibility to complete the project grows. This is equivalent to the loss of invested funds. At the same time, the pressure from project crediting entities increases. They demand higher remuneration for the "lent" capital in connection with increased risk. All of this has an effect on the costs of the project and often a high level of risk is a reason for giving up the planned project. Despite the fact that multiple methods and instruments to reduce the uncertainty of investment projects exist, two basic risk management areas can be identified: collecting information regarding respective risks related to the project and impact on the entity's exposure to risk by taking up activity (Frank, 1986, pp. 86-87). Both areas are complementary and form a coherent whole. First of all, data concerning the risk are collected. Then, based on the collected data it is evaluated whether the level of risk is acceptable or whether measures should be undertaken to minimise the hazard. To ensure that the measures are efficient, the effects of such measures must be continuously monitored and information must be continuously updated to ensure

effective risk management. It is clear that risk management is not a one-off activity at the planning stage. In addition to risk analysis and development of preventive methods at a later stage, it is necessary to control the situation throughout the term of the project so that, in case the situation changes, an adequate strategy could be adopted (Hupe, 1995, p. 470). Generally, risk management methods can be split into two groups: minimising project-related risk and transferring the risk to other participants of the project. Both ways of managing risk—minimising and transferring it to other entities—are important since the “fundamental purpose of risk management in project finance is the structure of a project allowing every project participant to incur risk at acceptable level, simultaneously minimising the project risk as a whole” (Kowalczyk, 2001, p. 12). It must be emphasized that observation and analysis of the public partner environment in terms of risk are often determined by individual perception of factors and experience (Filipiak, 2003, p. 22). In addition, in many operating areas of public entities the employees are not liable for decisions, and they have virtually no other responsibility, since no provisions exist that would clearly and unambiguously sanction the issues of decision-making by public employees and make them liable for unfortunate consequences of their decisions. Because of globalisation and progressing EU integration, an increase in the significance of risk management processes in the public sector can be expected along with the emergence of awareness of risk and responsibility of local government authorities in their capacity as providers of services to local/regional communities. In the USA, for instance, most state authorities have special risk management departments with a wide range of responsibilities in related to risk management in public sector, including project finance (Williams, Smith, & Young, 2002, p. 52).

Analysis: The Potential of PPP Projects in Islamic Countries

Middle East and North Africa (MENA) is a region consisting of about 22 countries. MENA countries have 60% of the world's oil and 45% of the world's natural gas resources. With regard to considerable reserves of natural gas and oil, MENA is an important source of global economic stability [<http://www.investopedia.com/terms/m/middle-east-and-north-africa-mena.asp>]. The World Bank estimates that MENA governments, in order to keep up with the growth rate and increase the economic competitiveness of their countries, must spend USD 75-100 billion a year. “The Arab Spring” showed that people want cleaner city environment and better public services. It necessitates a more effective and improved design of facility services. At the same time, state budgets are under pressure and the private sector sees a risk of political upheavals, which make the financing of the required infrastructure considerably difficult (Collins & Godfrey, 2012, p. 30). The need of MENA governments for improved quality and delivery of facility services has never been higher, whereas their ability to achieve this goal has never been lower. If the governments undertake challenges from the citizens of MENA countries referring to improved availability, quality, and reliability of public services, PPP projects will play a significant role in faster delivery of improved services. To meet these goals, PPP projects should focus on introducing gradual improvements and should be simple to ensure they can be managed by low-capacity authorities, at the same time remaining attractive to investors. Most countries in MENA region have already used PPP to finance new infrastructure-related projects. This form has a major advantage over total privatisation since the government remains in control of the so-called sensitive sectors or strategic industries, whereas at the same time it can make use of the know-how and capital of private sector investors, and in particular foreign investors. MENA countries become more and more open to participation of private companies in infrastructure financing. The dominance of the energy and telecommunications sector is worth

noting (60% of projects in the region). Interest in PPP projects is growing in order to develop the infrastructure of cities and the education sector. Countries such as Iraq have a huge requirement of road, education, hospital, airport, and water supply infrastructure, so PPP projects are more and more often considered as an alternative to satisfy such needs. According to the World Bank PPI (Private Participation in Infrastructure) Database, which includes data from 13 MENA countries from 1990 to 2008, more than USD 67 billion had been invested in 122 public-private infrastructure projects in the telecommunications, energy, transport, and water sectors by both private companies and public parties [http://www.iemed.org/anuari/2010/aarticles/Bohmer_MENA_en.pdf]. In some countries, e.g. in Arab Emirates, very favourable regulatory framework based on Sharia Board has been already created. It aims to attract long-term investments to the UAE, mainly by attracting investors having know-how instead of attracting capital. The new law defines the rules and optimum terms and conditions for public and private sector to enable joint working on projects that from the point of view of Islamic finance are beneficial for the economy, finance, technology, and society. PwC Dubai BIZ report identifies and emphasizes the importance of PPP projects. The required steps include creating the conditions for performing such projects with due diligence. At that time, attracting a global community of investors, and accelerating economic diversification, transfer of knowledge and creating jobs in MENA countries will be invaluable. Over the past decade PPP has become a popular tool for financing new facility projects throughout the world. The PPP formula is also very attractive for medicine where in particular knowledge and human capital can be the key assets for foreign investors in PPP projects in Islamic countries [<http://www.thenational.ae/business/economy/dubai-plans-more-public-private-healthcare-partnerships>]. In this region of the world, access to capital is not a problem. What is deemed valuable is access to the best knowledge and availability of high-skilled workers. The sources of financing are local, based on assets actually held by the state, investors, and companies. For conventional investors, cooperation based on stable financing of entities directly interested in the result of the project, deprived of speculations, can be one of the important advantages of PPP in Islamic countries.

Literature Review: Risk in the Theory of Public Finance According to Conventional Investors

An extensive output of conventional finance theory does not sufficiently touch upon risk management in public finance. The verification of scientific achievements in the public sector indicates that, among other things, the public choice theory—classified as a branch of institutional economics—is worth noting. According to this theory, the quality of cooperation between private and public entities determines the economic efficiency and effectiveness of the public sphere of the project under consideration (Wilkin, 2012, p. 11). Two directions must be identified in the new institutional economics: the science of making choices and the science of contract. Institutionalists noted that the subject of economic choice is not only different goals and ways of utilizing production resources but also institutions that can facilitate their operation or make it difficult. Thus, ownership relations and types of contracts concluded between the public and private partner would be significant. The obvious assumption of economics that human needs are unlimited but the resources are always limited would be an important reflection of this theory in PPP. According to the idea of the functioning of public sector entities, the needs of the community related to the use of public services will always exist, whereas the resources which public authorities have at their disposal to satisfy the needs of the community have changed increasingly. Such a situation is one of the key conditions to apply PPP risk analysis in the economic practice. On the one hand, the needs of the community must be satisfied continuously. On the other hand, there are no

sufficient funds to deliver the required quantity and quality of public services to the community. The trend in the social choice theory where collective decision-making processes are analysed is also worth noting (Wilkin, 2012, p. 67). Social acceptance of PPP is often perceived as the main aspect from the point of view of long-term cooperation. Searching for social acceptance and obtaining it in the form of a collective decision of the community is a manifestation of assignment of certain risk to the community to which the project applies directly. The lack of social acceptance of any public process can result in unsuccessful cooperation. In case of a PPP agreement concluded for several dozen years, the key success factor is often social acceptance of the local electors or users of the infrastructure (Kociemska, 2010). Collective decision in the context of such a long-term cooperation is an intergenerational decision, which can ensure stability and acceptance of terms and conditions of cooperation over a long period of time. From the point of view of conventional PPP partners it is a significant limitation of the risk that the public entity representing the directly concerned and approving local community will terminate the cooperation. Social acceptance contributes to building sustainable public-private relations. The legal and organisational process of selecting the public partner is also a significant reference to social choice theory. The process is regulated differently in respective countries. However, in every case priority is given to ensure specific availability and quality of public services to the local community. From the point of view of PPP the achievements of William Niskanen's model, the so-called public bureaucracy model, are of key importance. The author has attempted to economize public services by choosing forms of organisation of the public sector services other than bureaucratic ones. The model created by Niskanen fits the neoliberal trend based on the agency theory (Wilkin, 2012, p. 177). Jensen and Meckling (1976) define the relationship occurring within the agency theory as the:

Contract under which one or more parties (principal) engage another party (agent) to carry out certain activities on their behalf. This activity is connected with delegating a certain part of independence to make decisions onto the agent. If both parties to the contract maximise their usability, it must be assumed that the agent will not always act in the principal's best interest.

One of the fundamental goals of the principal-agent relationship would be the improvement of the effective allocation of the office's external resources. The authorities should make use of tools to support savings. One of such measures, also creating competitive pressure on others, is partial privatisation of public services associated with a reduced scope of tasks rendered directly by public sector entities. PPP is a direct reflection of this trend. Literature recounts numerous modifications of Niskanen's assumptions, mostly referring to office control issues. Thus, here is where the foundations of managing risk through the control of PPP should be looked for. Scientists saw the control efficiency solution in the public sector, hence eliminating the problem of bureaucracy through privatisation of public services (Wilkin, 2012, p. 181). On these grounds in 1980s the New Public Management (NPM) concept was developed in the United Kingdom. It was under the rule of Margaret Thatcher where many key reforms were put into operation in the United Kingdom. At that time public-private partnership started in the United Kingdom. The concept of NPM emphasizes the necessity to accomplish long-term goals, achieve adequate products, deliverables, and impacts. NPM gave priority to management skills over administration in public sector entities. Hood described this trend in more detail in 1991 (Zawicki, 2011, p. 40). Scientists were not afraid of combining the idea of entrepreneurship with public management. Hence, it forms good theoretical grounds for PPP. The main characteristics of NPM, according to Naschold and Otter (1996), include: separate roles of the producer, service provider, or contractor, development

of contract agreements, responsibility for results, flexible pay and terms of employment, separation of political activities from management processes, introducing market and quasi market elements, application of the rule—society as the customer, control of public services supply processes. Certain elements will be clearly accepted in Islamic finance. In economic practice this trend will represent the idea of Value for money in PPP (World Bank Institute, 2013). Striving for “contracting” public services is also important and is identified with PPP. A few assumptions of the NPM theory are also worth noting—they do not directly indicate but signal the necessity to apply solutions typical of private entrepreneurs managing risk. The requirements of NPM for the public sector include: introducing professional management, implementing a system of standards and measures allowing objective assessment of activities with a rich set of methods, obligatory internal audits in current public activities, taking structural changes into account in the operating strategy, applying certain methods and techniques used in the private sector to the management process, main orientation to greater discipline of finance and looking for savings in management of tangible and financial assets of public entities (Owsiak, 2011, p. 334).

Analysis: Risk in the Theory of Islamic Finance

The key characteristic of Islamic finance is giving up interest and a different interpretation of risk—gharar. The source of earnings for financial institutions is not interest or creating long-term credit debts, creating assets, and participating in earnings from sales. Profit is always connected with assets on which it is generated. Financial institutions provide funds for developing the sector of production and services. They do not invest in virtual instruments. Funds are allocated to specific projects and assets formed for the purposes of such projects. Thus, they are invested directly in the economy and, as an assumption, money is not “artificially” created and speculation is avoided. To this end, Islamic finance has developed properly designed financial products. No separate branch of Islamic finance was created in public finance. Still, because of the ban on using *riba*—interest, the budget policy of Islamic countries requires more creativity. In conventional finance a central bank creates monetary policy based on interest rates not associated with assets. It can also be a lending and depositing institution. In Islamic finance public goods are waterworks, road infrastructure, education services, and other management to be used for social welfare. Public authorities can be a customer of financial institutions according to “profit and loss sharing” principles. This is true about public companies and other activities that guarantee specific earnings (Visser, 2009, p. 122). A solution to finance public transport or real property is *ijjara* or *ijara wa iqtina* where, in case of PPP projects, public authorities decide, in advance, to buy real property from the company for a pre-determined price at the end of long-term cooperation and lease agreement. Running expenses can be financed by *sukuk*, implemented for the first time by Malaysian government in collaboration with HSBC (Karwowski, 2015, p. 34). Direct investments in manufacturing are connected with an important rule accompanying investments in Islamic world, i.e. being guided by the interest and support of the community. There are also restricted areas of economic activity such as, gambling or production and sales of pork and alcohol. Another significant characteristic from the point of view of the present considerations is joint and several distribution of credit risk. This is reflected in the distribution of future profits or losses from invested funds between the financing entity and the customer in proportion to share. The financing entity operating on the basis of Shari’ah law does not multiply funds by creating debt but it operates real capital from deposits. Thus, the depositor incurs real risk that entitles him to participate in the real profit of the entity financing the investments. The amount of profit is not pre-determined. It follows from real

profit generated in the economic process. Thus, the partners act together sharing both profits and losses, which fully comply with the idea of PPP. The presented foundations of Islamic finance are clear and understandable. They could be mostly accepted in the economic practice of conventional financial entities. In addition, every proposed financing structure must be consulted with Shari'ah Advisory Board whose legal opinions, although sometimes unambiguous, are absolutely binding for each of the parties (Alexander, 2011, p. 575). Risk is accepted in Islamic finance but its nature is specified somewhat differently. Hence, differences in the theoretical approach to risk must be noted to reconcile the foundations underlying the activity of both types of investors in PPP, i.e. conventional and Islamic ones.

So how can risk as interpreted in Islamic finance affect risk management in international investment projects where conventional and Islamic finance must overlap? As the thesis for further consideration, the author assumes that risk is a term operating in Islamic finance but defined differently than in conventional finance. The term takes upon a different meaning in the context of applicable Islamic standards that do not allow: *riba*—interest, *gharar*—uncertainty, speculation and gambling—*maysir* (Cattelan, 2014, p. 3). With reference to conventional public finance and the neoliberal trend, based on the agency theory, Jensen and Meckling (1976) define the relationship occurring within the agency theory as the contract under which one or more parties (principal) engage another party (agent) to carry out certain activities on their behalf. This activity is connected with principals delegating a certain part of independence to make decisions onto the agent. The agency theory refers to two entities—the principal and its agent. The principal orders the task to be performed by the agent and relies on the agent's knowledge and will. The asymmetry of information occurs in the principal-agent relations. The agent has more information than the principal does about possible terms and conditions of transactions or the status of the economic environment. As a result, the agent can undertake activities characterised by high level of own benefits, at the same time exposing the principal to excessive risk of losses. This is when moral hazard occurs. Moral hazard, that is, the transfer of the risk of possible losses caused by the agent's activity onto the principal, can occur when:

- the usefulness of the principal and agent is determined by the agent's activities,
- the principal is not fully capable of controlling the agent's actions, so he can only observe the results of the agent's activity,
- the agent's activities are not optimum according to Pareto.

According to the assumptions of the agency theory, the agent is appointed to pursue the goals set by the principal. However, his activity can also take into account his own objectives. The principals, aware of the conflict between his goals and the agent's goals, can preventatively regulate these issues in an agreement. However, the execution of a contract taking into account all possible variants of the market situation and agent's behaviour patterns is theoretically possible. But, in practice, such a contract does not exist even in Islamic finance. Thus, the principal is to some extent dependent on the agent's will. In turn, the agent's activities cannot be controlled with regard to the amount of costs which should be incurred for that purpose. Detailed and frequent inspection would also challenge the principal's trust to an honest agent. Aware of such limitations, a dishonest agent, guided by egoistic reasons and presenting opportunistic behaviour, can strive to carry out his own plans that are optimum from the point of view of the principal's effectiveness. Losses charged to the principal as a result of excessive risk taken up by the agent can distort mutual trust. At the same time, they would contradict the principles of Islamic finance. In Islamic finance responsibility for activity is with the party performing the activity. This is a special relationship between the principal and the agent. It is a

significant interpretation of the agency theory where, along with the transfer of rights and obligations, the transfer also refers to risk. Islamic finance does not allow freedom of individual speculations or distribution of responsibility among agents. The role of office control according to the principles of Islamic finance could unambiguously suggest that the only supervision is Quaran and Shair'ah law. Hence, in the Islamic reality the problem of moral hazard in the agency theory seems more serious (Visser, 2009, p. 139). Islamic banks have fewer instruments to restrict moral hazard, including a reduced possibility of imposing penalties pursuant to Shari'ah. They make use of the profit and loss sharing formula mainly to obtain deposits. In case of credit actions, an Islamic bank is a principal who is afraid that the funds will be used otherwise than planned and that earnings will be reported at a lower than actual level (Piotrowski, 2014, p. 107). Thanks to PPP, direct involvement of the partners in joint, long-term contractual cooperation can level this risk. To conclude, in the agency theory and its association with the principle of partners' profit and loss sharing in Islamic finance the risk of moral hazard seems higher than in interest-based conventional finance. The availability of financial instruments eliminating gharar is lower; however, the avoidance of speculation certainly fosters sustainable cooperation under PPP. The analysis of risk is necessary for conventional investors, where adequately distributed and secured risk determines the possibility carry out the project and the classification of project liabilities as off-budget liabilities. But the link between assets and risk in Islamic finance is a significant simplification of the conventional model. Thus, it can contribute to increased transparency of international investments carried out by means of project finance. Identifying risk areas, evaluating impact on the project, estimating the chances of occurrence, and finding the right security instruments can be much simpler stages of risk management assuming we are familiar with the principles of Shari'ah in project management. Out of the two fundamental risk management tools, i.e.

- project risk minimization,
- transferring risk to other participants of the project (Hupe, 1995, p. 47).

Project risk minimization must be particularly taken into account in the structures of both systems—Islamic and conventional. Risk should be transferred to the party who generates it and derives benefits from goods produced in the economic process. Thus, the responsibility for risk is determined by the entity creating such risk, having assets with which such a risk of profit or loss is associated. At the same time, it satisfies the basic aim of risk management in project finance (Kowalczyk, 2001, p. 12). The project must be designed to allow every participant of the investment to incur the acceptable level of risk, at the same time minimizing the risk of the project as a whole. According to the Islamic principle *al-kharaj bi-l-daman*, the responsible party is the party deriving benefits from assets underlying the transaction. As a rule, such management of risk would be acceptable for PPP projects in mixed, i.e. conventional and Islamic conditions. The risk is incurred by the special purpose vehicle formed by both partners to the extent and in the form closely related with the assets held and the financial result achieved. Responsibility must not be transferred to other entities not included in the cooperation. Also, speculating on financial instruments is forbidden. Risk cannot be assigned under an insurance agreement. In Islamic finance insurance is very limited. Basically, they occur exclusively in the form similar to mutual insurance societies operating in Poland but with a strongly limited location policy of such insurers. The fundamental insurance instrument, although virtually impossible to apply in risk management in PPP, is *takaful*. Generally, *takaful* is a concept of social solidarity, cooperation, and mutual support in case of losing the members of *takaful* (Kurek, 2010). The financial instruments of *takaful* mostly refer to life insurance and they will not form a significant element of risk management in PPP.

Insurance, understood in traditional terms as a method of managing risk, is not allowed in Islamic law. This is because it means purchasing something with an unsure result, and insurers, in order to make sure they will derive profit, use “interest” (riba) as a part of the portfolio management process in order to meet potential future obligations which can but do not need to occur.

Considering the aspect of common social acceptance, it would be significant to pay attention to the trend of social choice theory the postulates of which on the one hand seem to comply with the foundations of Islamic finance and on the other hand condition the success of PPP projects. The lack of social acceptance for projects inconsistent with Shari’ah would certainly prevent the planned investment. The axiom of common acceptance of financial instruments in Islamic world can be understood through the lens of religion and society and here similarities to the social choice theory can be sought. As an assumption, a PPP project should comply with one of the most essential foundations of Islam, i.e. Zakah, in terms of conventional instruments, a type of “public imposition”. In a wider treatment Zakah means redistribution of wealth leading to enhancement of social welfare thanks to transferring excess income to the poor (Usami & Qazi, 2010, p. 5). Where the generated surplus of financial resources exceeds the value accepted for the project, the so-called Nisaab, the funds are not only transferred to the poor but also to a wide group of people authorised according to relative equality. These include: tax collectors, the needy, supporters of Islam, educators of Islam, debtors etc. (Al. Qardawi, 1986, pp. 5-82). The approach to assuming risk in PPP projects should widely take into account not only the principles of Shari’ah. It should also focus on solving social issues. Since the performance of PPP projects mostly refers to large, pro-social investments related to infrastructure, it seems a transparent reflection of the rule of Zakah. In addition, from the point of view of potential investors, prior to the start of investment, they were aware of the maximum levels of profit that can be managed above which all surpluses must be redistributed to the indicated authorised social group.

The surplus generated above Nisaab amount adopted in the agreement can be transferred to the society if, with regard to their financial situation, they have a limited possibility of using public and private services under PPP. To sum up, the aforementioned social choice theory is identified with the Islamic principle of common acceptance of the public choice, including directions and methods of investment. For every type of investor it provides the theoretical foundations for mitigating the key risk, that is, the lack of social acceptance of a facility project, and it should be fully accepted and implemented by conventional partners.

Research Results and Conclusions

The author analysed selected scientific output related to risk in the theory of Islamic finance and public conventional finance used to describe PPP projects. Identifying the areas of overlapping existing theoretical assumptions of both systems of finance can contribute to a wider application of this method in international infrastructure-related projects. The identified potential of Islamic investors and the needs for infrastructure-related investments in Islamic countries, where investors can be conventional entities, have influence on the significance of the research topic undertaken. The adopted interpretations of risk in selected theories of conventional finance and the foundations of Islamic economy indicate that joint projects related to infrastructure are feasible. Further identification of, this time, clashes between the two systems of management, will be the subject of subsequent research by this author in the future. The key is to understand selected theories of public finance required for a wider explanation of risk related to PPP projects completed in mixed conventional and Islamic environment. The presented interpretations of the agency theory

and the social choice theory point to their adaptability to the market reality of MENA countries. It is worth emphasizing that filling joint risk management conventions could have influence on the success of long-term cooperation under PPP. The determinants of success of PPP projects in the light of analysis of the indicated include:

- lower risk of insolvency of the company or the partners,
- higher resistance to financial crisis with respect to the ban on speculation and permanent link between the investment and the company's assets,
- contract like nature of long-term cooperation.

To sum up, a presentation of chances and hazards inherent to risk management processes in international PPP projects involving both types of investors follows.

Hazards related to risk management process include:

- private investors getting used to mitigating risk to third parties to the largest extent possible,
- conventional investors getting used to rolling over debts, in particular in long-term infrastructure-related projects, with regard to the desire to obtain a higher premium in a shorter period of time and withdraw from the transaction sooner than planned,
- conventional investors getting used to financing investments not related to assets or products manufactured as a result of using the assets,
- conventional investors getting used to security on assets above their real value and the value of outstanding debt, in particular when the level of debt decreases due to timely repayment (the value of the security is not updated along with the value of debt obligation),
- conventional investors facing the large financial capabilities of Islamic investors as a result of which a conventional partner can be a minority shareholder in terms of capital which contributes to the project (being his know-how only),
- difficulty finding conventional investors who, in view of the progressing wave of terrorism on a global scale, can be afraid of the lack of transparency of capital transfers from the company, and in particular transfers exceeding Nisaab (these can be allocated e.g. to supporting religious followers),
- cultural and geographical differences making communications and international organisation of risk management difficult.

The chances include:

- large market potential manifested in the long-term need for infrastructure-related investments,
- Islamic societies growing wealthy,
- high level of knowledge and skills related to risk management among partners from conventional countries,
- access to local, high financing sources, in particular for innovative projects,
- progressing dissemination of the principles of Islamic finance, including Islamic banking in Europe,
- availability financial instruments acceptable to conventional partners such as: asset based on sukuk, istisna'a'ijara, mudaraba, musharaka, sukuk issuances to securitize the assets of the project (Alexander, 2011, p. 601).

The success of risk management processes in PPP will be determined by adequate interpretation of identified hazards and utilization of existing chances by both partners—Islamic and conventional one.

References

- Al Qardawi, Y. (1986). *Fiqh Al Zakah vol I , vol II, a comparative study of Zakah, regulation and philosophy in the light of Qur'an and Sunnah*. Saudi Arabia: Scientific Publishing Center King Abdulaziz University Jeddah.
- Alexander, A. J. (2011). Shifting title and risk: Islamic project finance with western partners. *Michigan Journal of International Law*, 32(3).
- Catelan, V. (2014). *In the name of God: Managing risk in Islamic finance*. EABH Papers, 14-07.
- Collins, N., & Godfrey, M. (2012). Privatisation & public private partnership review, 13, p. 30.
- Filipiak, B. (2003). *Finanse samorządowe, zadania, ćwiczenia, case study*. Szczecin: Uniwersytet Szczeciński.
- Frank, H. (1986). *Project Financing—Ein Verfahren zur finanziellen Absicherung des Unternehmenswachstums*. Wien: Service-Fachverlag an der Wirtschaftsuniversität Wien.
- Hupe, M. (1995). *Steuerung und kontrolle internationaler projektfinanzierungen*. Frankfurt am Main: Peter Lang Europaischer Verlag der Wissenschaften.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), October.
- Karwowski, J. (2015). *Central counterparties from the Islamic finance perspective*. Kwartalnik Kolegium Ekonomiczno-Społecznego Studia i Prace, Oficyna Wydawnicza, Szkoła Główna Handlowa w Warszawie, nr 3, tom 3/2015.
- Kociemska, H. (2010). Public private partnership project success circumstances. *Journal of Accounting and Auditing*, 6(11), 53, USA.
- Kowalczyk, M. (2001). *Risk management in project finance*. National Bank of Poland, Analitics Depertment, Warsaw.
- Kurek, R. (2010). Muzułmańskie ubezpieczenia na życie. *Wiadomości ubezpieczeniowe*, 2/2010.
- Naschold, F., & Otter, C. (1996). *Public sector transformation: Rethinking markets and hierarches in government*. Amsterdam, Philadelphia: John Benjamin Company.
- Owsiak, S. (2011). *Nowe zarządzanie finansami publicznymi w warunkach kryzysu*. Warszawa: Polskie Wydawnictwo Ekonomiczne.
- Piotrowski, D. (2014). *Zastosowanie podstawowej zasady finansów islamskich PLS celem ograniczenia zjawiska moralnego hazardu na rynku usług finansowych*. Acta Universitatis Nicolai Copernici, ISSN 2080-0339.
- Usami, M., & Qazi, B. (2010). Guide to Zakah: Understanding and calculation, product development and Shari'ah compliance. *Maktaba Ma'ariful Quran*.
- Wilkin, J. (2012). *Teoria wyboru publicznego. Główne nurty i zastosowania*. Warszawa: Wydawnictwo Naukowe Scholar.
- Williams, Jr. C. A., Smith, M. L., & Young, P. C. (2002). *Zarządzanie ryzykiem a ubezpieczenia*. PWN Warszawa.
- World Bank Institute. (2013). Value-for-money analysis—Practices and challenges: How governments choose when to use PPP to deliver public infrastructure and services. Waszyngton.
- Visser, H. (2009). *Islamic finance principles and practice*. Edward Elgar Publishing Inc. ISBN 9781845425258.
- Zawicki, M. (2011). *Nowe zarządzanie publiczne*. Warszawa: Polskie Wydawnictwo Ekonomiczne.