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OUTSOURCING BEST PRACTICE - THE CASE OF LARGE CONSTRUCTION FIRMS IN IRAN

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ABSTRACT

Aim/Purpose	During an evolutionary time for Iran the purpose of this research study was to establish the outsourcing best practices in the area of supply chain by investigating in the construction firms in Iran, which is identified as the most successful industry in outsourcing.
Background	Clarifying outsourcing decisions have been a difficult and challenging task because the outsourcing itself is complex. Meanwhile, the construction industry is recognized as one of the most complex and vibrant industries, although no concentration was set to outsourcing practices and its approach in construction firms in Iran. This paper aims to address this gap.
Methodology	Based on a combination of academic literature, screening interviews, and survey, data was collected from Iranian construction firms involved in outsourcing. Participants were senior managers and CEOs from twenty one large construction firms in Tehran. The analysis methods in this study were centered on comparative analysis, factor analysis, Pearson correlation, and relative important indices.
Contribution	The paper offers insight into outsourcing decisions, focusing on Iranian construction firms.
Findings	The findings identified that construction firms regularly choose to outsource their operation functions/processes to find operational expertise, a wider pool of knowledge and experience, and cost restructuring. The study revealed that selective outsourcing was the popular practiced outsourcing type in construction firms. On the other hand, the study has acknowledged that construction firms mainly practiced

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	strategic outsourcing as a level of outsourcing. The study established that conducting a need analysis prior to making the outsourcing decision is the outsourcing success element for Iranian construction firms. Lastly, the result shows that nearly two thirds of the large construction firms were identified as successful at outsourcing process.
Recommendations for Practitioners and Researchers	The outcomes of this research offer practical value for construction managers and researchers to choose the best outsourcing practices method.
Impact on Society	As the sanctions are removed, it is predicted the economic settings in Iran will become more firm and the findings of the study will assist the successful implementation of outsourcing in economic growth of Iran.
Future Research	To further development of this study, an in-depth investigation into risks involved in outsourcing, reasons to insource, economical and environmental effects on outsourcing process, cultural and social effects, as well as the result of sanctions on the process of outsourcing can provide more insight to the outsourcing practitioners.
Keywords	outsourcing, decision making, supply chain management, construction, Iran

INTRODUCTION

In the 1980s, outsourcing became the key components of supply chain strategies (Christopher, 2016; Pettersson & Segerstedt, 2013; Willcocks, 2011). A successful outsourcing process can lead companies to achieve competitive advantage (Christopher, 2016). In such a competitive globalized market, managers and CEOs are always looking for improvement and the best practices to direct them to success. The allocation of non-core business operations to a third-party organization is referred as outsourcing (Lacity & Rottman, 2009; Lacity, Willcocks, & Rottman, 2008; Lysons & Farrington, 2012; Quinn, 2000). Whilst the increasing use of outsourcing has allowed organizations to accomplish better outcomes, it has also made projects more complex, which then requires experienced and professional outsourcers.

In Iran, the history of outsourcing and privatization refers to the institution of the privatization law in 1975 (Sedahi & Davarzani, 2010). In addition, construction is recognized as one of the most complex and vibrant industries (Tabassi & Baker, 2010). Per Tabbasi and Baker (2010), the construction industry occupies more than eleven per cent of the Iranian working population. After the elimination of United States and United Nation sanctions on Iran, effective management and outsourcing practices have become vital to all firms and companies in Iran (Akbari & Hopkins, 2016), including construction firms. Construction firms were identified as the most successful in outsourcing process by Akbari and Hopkins (2016). Because of lifting sanctions, according to BMI Research (2016) reported in the Tehran Times, construction industry was forecasted to raise 4.5 per cent in 2016. Thus, in-depth research and investigation into outsourcing practices in Iranian construction firms, as the most successful industry, could provide more insights into outsourcing best practices in a developing country like Iran. To establish the best practice, the current research will focus to answer the following research question:

RQ1 – *What are the best outsourcing practices that firms can implement, by looking at the most successful industry in outsourcing process?*

To answer the RQ1 in this paper, an in-depth examination of the current literature took place by the researcher, then presenting the findings and results of the self-administered survey from large construction companies in Iran.

LITERATURE REVIEW

ECONOMY OF IRAN

Iran embraces the 3rd largest major treasury in petroleum industry and 2nd largest gas reserves in the world (Akbari, 2013). The economy of Iran was growing very fast until the introduction of sanctions in 2006 and followed by reduction of the oil value (Ilias, 2010). After lifting the entire sanctions by UN and US in 2016 (UN Security Council, 2015), the economy of Iran is growing fast from 0.5% in 2015 to 4.2% in 2016 and an estimation of 4.7% in 2017 (The World Bank, 2016).

Table 1. Country Overview of Iran

Population*	82,801,633 (July 2016 est.)
Ethnic Groups *	Persian, Azeri, Kurd, Lur, Baloch, Arab, Turkmen and Turkic tribes
GDP (purchasing power parity) *	\$1.371 trillion (2015 est.)
GDP (official exchange rate) *	\$387.6 billion (2015 est.)
GDP Growth **	4.2% (2016 est.)
GDP - per capita (PPP) *	\$17,300 (2015 est.)
GDP - composition, by sector of origin *	Agriculture: 9.2% (2015 est.)
	Industry: 38.8% (2015 est.)
	Services: 51.9% (2015 est.)
Health Expenditure *	6.9% of GDP (2014)
LPI Rank (Score)***	96 (2.60)

Source: * The World Factbook Iran (2016)

** The World Bank (2016)

*** Logistics Performance Index (LPI) (2016)

The company's size in Iran defined by Ministry of Economic Affairs and Finance (MEFA), from small with less than 50 employees, medium size firms/organizations between 51 and 500 employees, large size with 501 and above (MEFA, 2009).

CONSTRUCTION IN IRAN

Construction is recognized as one of the most complex and vibrant industries (Tabassi & Baker, 2010). Per Bresnen (1990), it is a project based business where each project is customized based upon the client's specifications. An input characteristic of the industry's production is the non-transportable final products that must be assembled at the final destination (Fellows, Langford, Newcombe, & Urry, 2002). These characteristics are a challenge for successful management of human resources (Tabassi & Baker 2010). Their impact is mostly noticeable amongst the contractors outsourcing practices whose focus is on the entire construction projects (Drucker & White, 1995). Although the increasing practice of outsourcing has allowed organizations to accomplish better outcomes, it has also made projects more difficult, so experienced outsourcers are required. Therefore, effective management of outsourcing practices is vital to all construction companies.

Construction firm plays a significant position in the developing Iranian economy. In addition, there are several important characteristics from Iranian construction companies, such as the following: (a) high competition; (b) construction industry regulations allow for admission into the field; (c) ready supply of unskilled labor; and (d), lastly, availability of primary construction materials (Tabassi & Baker, 2010). Unfortunately, the uncertain nature of the construction industry itself generates daily problems for the practitioners (Nguyen, Ogunlana, & Lan, 2004). Appropriate outsourcing methods and strategies will lead the organizations to achieve their best performance and accomplish competitive advantages. Additionally, in Akbari and Hopkins' (2016) study, in comparison to other industries, construction was identified as the most successful industry in outsourcing process. There-

fore, more investigation on this successful industry is required to establish the best outsourcing practice.

OUTSOURCING LITERATURE

In the late 1980s, the expression of supply chain and outsourcing was first used (Pettersson & Segerstedt, 2013). Since then, outsourcing evolved beyond information systems and it has been a progressively trendy method of expansion and development for companies (Christopher, 2016; Modarress, Ansari, & Thies, 2016). An examination of the current academic literature brought to light different characteristics of outsourcing, such as reasons, types, levels, and success elements of outsourcing as seen in Figure 1.

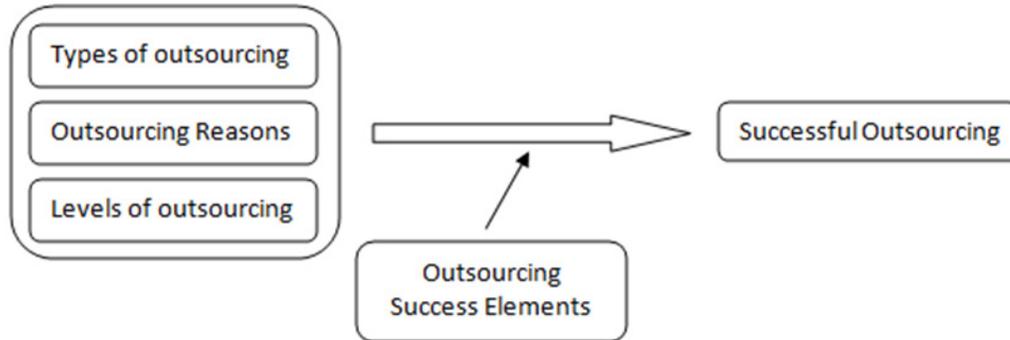


Figure 1. Outsourcing Characteristics
 Source: Adapted from Akbari (2013, p. 62)

Outsourcing reasons

Firms decide to outsource to reduce the total cost of their business operation (Cohen & Russel, 2013; Marquez-Ramos & Martines-Zarzoso, 2014). Outsourcing is not only to reduce costs of production, but also firms decide to outsource for other reasons, such as enhancement in financial performance (Brown & Wilson, 2005; Lyons & Farrington, 2012). Outsourcing decreases costs of business operation by shifting the fixed cost to variable costs (Assaf & Al-Nehmi, 2011; Koh Ser Mui, 2003; Liu & Tyagi, 2016). Outsourcing practices offer more opportunities to find skills that are not available at the time to the organization (Hansen, Muller, & Pottenger, 2008; Slack, Nrandon-Joes, Johnston, & Betts, 2015), as well as an ecological talent establishment, via retrieving support from third party's organization (Koh Ser Mui, 2003). The firm can accomplish quality improvements (Quinn, 2000; Sepehri, 2013) or performance improvement by contracting to an outside organization and, it should be noticed as a potential improvement, to succeed a better and higher service level (Assaf & Al-Nehmi, 2011).

Outsourcing types

Oshri, Kotlarsky, and Willcocks (2015) established 3 types of outsourcing: *Total outsourcing* is the shifting of more than eighty per cent of the firm's business functions or operations to a third party provider; *Selective outsourcing* refers to finding a chosen task to single/multiple outside provider, while management of twenty to eighty per cent of in-house business; and *Transitional outsourcing* is the provisionally outsourcing through a main shift for an organization, for instance; implementing a new technology.

Outsourcing levels

Brown and Wilson (2005) defined 3 outsourcing levels: *tactical*, *strategical*, and *transformational*. When a company faces specific issues or difficulties, *tactical outsourcing* is viewed as a fastest method to tackle the problem. *Strategic outsourcing* is an innovative methodology to 'maintain an organizations' primary

value chain or supply chain and its core capabilities, where *transformational outsourcing* is a technique to be able to respond to a moving marketplace.

Outsourcing success

Before making a decision to outsource any business functions, it is important for any organization to recognise their success elements and how to achieve an effective outsourcing to accomplish competitive advantages (Assaf & Al-Nehmi, 2011; Brown & Wilson, 2005; Valmohammadi, 2012a). It is necessary to define terms and conditions (Brown & Wilson, 2005; Koh Ser Mui, 2003) and perform a needs analysis before generating any outsourcing agreement (Koh Ser Mui, 2003; Slack et al., 2015). Suitable capacity management (Beaumont & Sohal, 2004) and outsourcing selection process is essential (Assaf & Al-Nehmi, 2011). Organization's objectives and goals are important elements of success (Seth, Goyal, & Kiran, 2015), and assessment of the organization strategic vision and business arrangement is required, with a suitable prediction (Brown & Wilson, 2005). Top-level management plays an important role in developing strategic objectives (Seth et al., 2015) establishing trust (Christopher, 2016; Msimangira & Tesha, 2014) and provide support (Abdin et al., 2012; Christopher, 2016). Lastly, it is beneficial that the outsourcer attains some form of certification (Gonzalez, Gasco & Llopis, 2005).

RESEARCH AIMS

Most of the improvement projects have primarily focused on economic phases, where cultural and social factors have not been included (Najafbagy, 2006). Unfortunately, to date, little research has been conducted on outsourcing practices in construction firms in Iran. Hence, the main purpose of this research is to investigate outsourcing best practice for the construction industry by looking at large firms in Iran.

METHODOLOGY

A descriptive research design, quantitative methods were taken in this study, where interviews in place of screening and survey were used for data collection. This method delivery was structured out of respect and politeness in line with Iranian business ethics and culture. The data was collected from the targeted sample to be able to make confirmations to the entire industry (Saunders, Lewis & Thornhill, 2015). A self-administrated questionnaire was conducted (Bell, 2013) in the context of Iran-Tehran, the capital where all the firms headquarters are located.

The survey was designed for this study and participants were managers and CEOs from 100 Iranian firms. In respect to the Iranian business ethic, face-to-face screening interviews and introduction to these twenty-one companies were taken place through known business networks. This is the most acceptable approach for collecting data in Iran. This resulted in 79 completed returned questionnaires with 74 usable for analysis which indicate the seventy four respond rate. In total, 58 companies were excluded because they were identified as operating in different industries. The remaining 21 usable responses presented in the SPSS coding analysis.

The structured questionnaire with 5 different sections (including screen questions, company info and demographics, outsourcing reasons, levels, types, and success elements) was translated to Persian (Farsi) and after meeting with each senior manager and CEO, they were asked to return their responded questionnaires by mail. In total, twenty-one completed questionnaires were collected and coded into SPSS. To analyse the data for this study, the researcher utilised different methods, such as: factor analysis, cross-tabulation, correlation analysis, means and relative important indices (RII) which was used in Sambasivan and Yau's (2007) study.

RELIABILITY ANALYSIS

Data collected from the questionnaire was subjected to Cronbach's alpha reliability test. Table 2 shows the results of the analysis with scores of 0.811 and 0.837 individually.

Table 2: Reliability Analysis

Variables	Cronbach's Alpha
Outsourcing Reasons	0.811
Outsourcing Success Elements	0.837

ANALYSIS AND RESULTS

1- DEMOGRAPHIC EFFECT

We required demographic information on the responding companies: organization's scope (national, or local) and success in outsourcing (Tables 3-4). From analyzing Tables 3 and 4 it is perceived that the entire twenty-one construction firms are operating nationally and show the great success rate in Iranian construction firms.

Table 3: Organization's Scope

	Frequency	precents	Valid precents	Cumulative precents
Local	0	0	0	0
National	21	100.0	100.0	100.0
Total	21	100.0	100.0	

Table 4: Success in Outsourcing

	Frequency	precents	Valid precents	Cumulative precents
Agree	14	66.7	66.7	66.7
Neutral	3	14.3	14.3	80.0
Disagree	4	20.0	20.0	100.0
Total	21	100.0	100.0	

2- OUTSOURCING REASONS

Participants from construction companies were requested to rank the importance of 13 outsourcing reasons. The three most significant outsourcing reasons, based on RII analysis and perceived by participants from construction firms were (1) operational expertise (RII=0.933); (2) wider experience and knowledge (RII=0.885); and (3) cost restructuring (RII=0.857).

Table 5 shows the factor analysis of responses and all thirteen outsourcing reasons grouped into four:

Factor 1 (labelled management base) reflects a desire to improve quality, reduce time to market, wider knowledge and experience, capacity management, and cost restructuring.

Factor 2 (labelled contract and operational base) reflects using outsourcing for operational expertise and provide to a legal binding contract.

Factor 3 (labelled resource base) reflects outsourcing being motivated by access to a larger talent pool and a sustainable of skills, commodification, as well as cost saving.

Factor 4 (labelled customer and external base) reflects customer pressure, catalyst for change and risk management. In addition, time zone not included in factor analysis because of local and national operation of all participants.

Table 5. Rotated Component Matrix for Outsourcing Reasons

	Factor			
	1	2	3	4
Reduce time to market	.974			
Improve quality	.922			
Wider knowledge & experience	.863			
Cost restructuring	.851			
Capacity management	.738			
Operational expertise		.810		
Provide to a legal binding contract		.700		
Access to a larger talent pool & a sustainable of skills			.960	
Allows a wide range of businesses access to services			.944	
Cost savings			.555	
Catalyst for change				.950
Customer pressure				.874
Risk management				.631

3- OUTSOURCING SUCCESS ELEMENTS

The two most important outsourcing success elements as observed by participants and analyzed based on RII were (1) conduct a need analysis prior to making the outsourcing decision (RII=0.914); (2) clearly define terms and conditions in the outsourcing contract, have a strategic vision and plan, and understand the proposed use of outsourcing, top management's support and involvement, and careful attention to the personnel issues and conducting open communication with the affected individual or group (RII=0.885).

Table 6 shows the factor analysis for fourteen outsourcing success elements. All elements were divided into 4 groups:

Factor 1 (labelled personnel issues, support, and measurement) reflects a need to appropriate outsource selection procedures, outsourcer understands the organization's goals and objectives, careful attention to the personnel issues and conducting open communication, ongoing management of the relationships and communication, criteria are drawn up to measure the outsourcer's performance, and properly drawn up contract.

Factor 2 (labelled trust commitment and financial planning) reflects outsourcing being succeed by seeking to establish trust between organization and outsourcer, financial planning and analysis, and outsourcer attains some form of certification.

Factor 3 (labelled clear definition of strategy and condition) reflects desire to having a strategic vision and plan and understand the proposed use of outsourcing, and clearly define terms and conditions in the outsourcing agreement.

Factor 4 (labelled top management support) reflects, conducts needs analysis prior to making outsourcing decision, top management's support, and involvement, and determines which areas of the company need to be outsourced.

Table 6. Rotated Component Matrix for Outsourcing Success Elements

	Factor			
	1	2	3	4
Appropriate outsource selection procedures	.986			
Outsourcer understands the organization's goals & objectives	.899			
Careful attention to the personnel issues and conducting oper communication	.830			
Ongoing management of the relationships & communication	.717			
Criteria are drawn up to measure the outsourcer's performance	.691			
Properly drawn up contract	.591			
Seek to establish trust between organization and outsourcer		.940		
Financial planning and analysis		.848		
outsourcer attains some form of certification, such as ISO 9001 SEI, CMM		.524		
having a strategic vision & plan, and understand the intended use of outsourcing			.918	
Clearly define terms & conditions in the outsourcing contract			.702	
Conducts needs analysis prior to making outsourcing decision				.982
Top management's support & involvement				.753
Determine which areas of company needs to be outsourced				.593

4- OUTSOURCING TYPES

Analyses from 'RII', 'selective outsourcing' and 'transition outsourcing' recognized as the most outsourcing type (RII=0.761) as perceived by participants from construction industries in Iran. Per Lacity and Willcocks (2008), selective outsourcing is the best practice, however the finding from construction companies in Iran shows selective and transition outsourcing are practicing in this industry.

5- OUTSOURCING LEVELS

Analyses from 'RII', 'tactical outsourcing' acknowledged as the significant levels of outsourcing (RII=0.904), and 'strategic outsourcing' (RII=0.857).

CORRELATION BETWEEN OUTSOURCING REASONS & SUCCESS ELEMENTS:

Pearson correlation shows the relationships between all the variables existed between outsourcing reasons and success elements (see Table 7).

Table 7: Correlation between Outsourcing Reasons & Success Elements

		Personnel Issues, Support & Measurement	Trust Commitment & Financial Planning	Clear Definition of Strategy & Condition	Top Management Support
Management Base	Pearson Correlation	.849*	.014	.031	-.293
	Significant	.016	.976	.947	.524
Contract & Operational Base	Pearson Correlation	.707	-.018	.364	.132
	Significant	.075	.970	.422	.779
Resource Base	Pearson Correlation	.308	.770*	.025	-.679
	Significant	.501	.043	.958	.093
Customer & External Base	Pearson Correlation	.351	.141	-.230	-.745
	Significant	.441	.762	.620	0.54

* Correlation is Significant <0.05

Table 8, indicates a great relationship between 'management base' and 'personnel issues, support and measurement', and a significant relationship between 'resource base' and 'trust commitment and financial planning'. Per the table, an integrated relationship between 'resource base' and 'trust commitment and financial planning' illustrated significant information integration between these two factors. Lastly, support from top management in personnel issues can lead the firms achieving competitive advantages.

OUTSOURCING REASONS & SUCCESS ELEMENTS VS OUTSOURCING TYPES & LEVELS

The outsourcing reasons and success elements have been divided to outsourcing types and levels. The Table 8 shows the mean value for each outsourcing reasons and success elements based on the respondents' observations.

Table 8: Mean Value of Outsourcing Reasons & Success Elements Vs Outsourcing Types & Levels

		Outsourcing Types			Outsourcing Levels		
		Selective	Transitional	Total	Tactical	Strategic	Transformational
Outsourcing Reasons	Management Base	4.10	3.60	5	4.04	4.25	5
	Contract & Operational Base	4.62	3.66	5	4.40	4.62	5
	Resource Base	3.41	3.88	4	3.66	4	4.66
	Customer & External Base	3.58	3.66	3.66	3.73	3.66	4
Outsourcing Success Elements	Personnel Issues, Support & Measurement	4.20	3.77	5	4.06	4.33	4.5
	Trust Commitment & Financial Planning	3.91	3.88	4.33	3.93	4.33	4.33
	Clear Definition Of Strategy & Condition	4.50	4.33	4	4.60	4.62	5
	Top Management Support	4.66	4.22	4.66	4.26	4.33	3.33

Referring to Table 8, it indicates that by dividing outsourcing reasons and success elements into the outsourcing types and levels, the result for most practices type and level changed. The table shows total outsourcing was chosen in both reasons and success element of outsourcing. Although, selective outsourcing was strongly aligned with clear definition of strategy and condition from success elements, top management support was aligned with selective and total outsourcing, and customer and external base from reason for outsourcing aligned with both transition and total outsourcing.

In addition, transformational outsourcing was chosen among reasons and success elements of outsourcing. Conversely, strategic outsourcing was aligned with top management support from success elements and trust commitment and financial planning aligned with both strategic and transformational outsourcing.

CONCLUSIONS

The main purpose of this study was to establish the outsourcing best practices in Iranian construction firms. This study provides a significant practical value for Iranian construction firms pursuing to outsource their business functions. The data in this study was drawn from twenty-one questionnaire survey from large construction companies which acknowledged the 66.7 per cent success outsourcing.

The research shows that construction companies choose to outsource their business operations or functions to external providers to accomplish with operational expertise, wider experience and knowledge, and cost restructuring. The result from this study shows the following conclusions:

- *Operational expertise* is the top key outsourcing reason for Iranian construction firms.
- *Selective outsourcing* is the best practice outsourcing type and *Tactical outsourcing* is the essential outsourcing level practiced in large construction firms in Iran.
- This study confirmed that firms can lead to success by *conducting a need analysis prior to making the outsourcing decision*. This is the most important element for Iranian large construction firms to consider when making outsourcing decisions.

- It has been highlighted that 66.7 per cent of large construction firms in Iran are successful in outsourcing.

The study mainly focused on large construction companies in the capital of Iran, Tehran. The small proportion of participants to the questionnaire is expected to lead to limitations in the investigation.

To further development of this study, an in-depth investigation into risks involves in outsourcing, reasons to insource, economic and environmental effects on outsourcing process, cultural and social effects, perception of the outsource organisation and even non managerial employees, as well as the result of sanctions on the process of outsourcing can provide more insight to the outsourcing practitioners and consultants.

REFERENCES

- Abidin, A. S. Z., Muslimen, R., Yusuff, R. M., Zulkifli, N., Ismail, M. Y., & Bakar, N. A. (2012). An exploratory study on the critical success factors for design capabilities development. *Operations and Supply Chain Management*, 5(1), 14-26.
- Akbari, M. (2013). *Factors affecting outsourcing decisions in Iranian industries* (Unpublished doctoral thesis). Victoria University, Melbourne, Australia.
- Akbari, M., & Hopkins, J. (2016). The changing business landscape in Iran: Establishing outsourcing best practices. *Operations and Supply Chain Management: An International Journal*, 9(3), 184-198.
- Assaf, S., & Al-Nehmi, A. (2011). Factors affecting outsourcing decisions of maintenance services in Saudi Arabian universities. *Property Management*, 29(2), 195-212.
- Beaumont, N., & Sohal A. (2004). Outsourcing in Australia. *International Journal of Operations and Production Management*, 24(7), 688-700.
- Bell, S. (2013). *Learning with information systems: Learning cycles in information systems development*. London: Routledge.
- Bresnen, M. J. (1990). *Organising construction, project organization and matrix management*: London, UK: Routledge.
- Brown, D., & Wilson S. (2005). *The black book of outsourcing*. New Jersey, USA: John Wiley and Sons.
- BMI Research: Iran's construction industry forecast to grow 4.5% in 2016 (2016, March 23). *Tehran Times*. Retrieved from <http://www.tehrantimes.com/news/402752/Iran-s-construction-industry-forecast-to-grow-4-5-in-2016-BMI>
- Christopher, M. (2016). *Logistics and supply chain management* (5th ed.). London: Pearson.
- Cohen, S., & Roussel, J. (2013). *Strategic supply chain management: The five core disciplines for top performance* (2nd ed.). New York: McGraw-Hill.
- Druker, J., & White, G. (1995). Misunderstood and undervalued? Personnel management in construction. *Resource Management Journal*, 5(3), 77-91.
- Fellows, R., Langford, D., Newcombe, R., & Urry S. (2002). *Construction management in practice*. Oxford, UK: Blackwell Science.
- Gonzalez, R., Gasco, J., & Llopis, J. (2005). Information systems outsourcing success factors: A review and some results. *Information Management & Computer Security*, 13(5), 399-418.
- Hansen, M. W., Muller, H. S., & Pottenger, E. (2008). Towards developing country firm perspective on outsourcing. *Strategic Outsourcing: An International Journal*, 1(3), 210-229.
- Ilias, S. (2010). Iran's economic conditions: U.S. policy issues. *Congressional Research Service*, (7-5700). Retrieved July 26, 2011, from <http://www.crs.gov>
- Koh Ser Mui, A. (2003). *Investigation of IT/IS outsourcing in Singapore*. (master thesis) Blekinge Institute of Technology, Sweden.
- Lacity, M. C., & Rottman, J. W. (2009). Effects of offshore outsourcing of information technology work on client project management. *Strategic Outsourcing: An International Journal*, 2(1), 4-26.

- Lacity, M. C., & Willcocks, L. P. (2008). *Information systems and outsourcing: Studies in theory and practice*. New York: Palgrave Macmillan.
- Lacity, M. C., Willcocks, L. P., & Rottman J. W. (2008). Global outsourcing of back office services: lessons, trends, and challenges. *Strategic Outsourcing: An International Journal*, 1(1), 13-34.
- Liu, Y., & Tyagi, R. K. (2016). Outsourcing to convert fixed cost into variable costs: A Competitive Analysis. *International Journal of Research in Marketing* (2016).
- Logistics Performance Index (2016, November). The World Bank. Retrieved from <http://lpi.worldbank.org/international/global>
- Lysons, K., & Farrington, B. (2012). *Purchasing and supply chain management* (8th ed.). Hampshire: Pearson Education Limited.
- Marquez-Ramos, L. & Martinez-Zarzoso, I. (2014). Trade in intermediate goods and Euro-Med production networks. *Middle East Development Journal*, 6(2), 215-231.
- Ministry of Economic Affairs and Finance (2009, February 2). *Decree of Supreme Council for implementation of the general policies of principle (44) of the constitution*. Iran Privatization Organization. Retrieved from <http://www.en.ipoi.ir/index.aspx?fkeyid=&siteid=83&pageid=1305>
- Modarress, B., Ansari, A., & Thies, E. (2016). Outsourcing in the Persian Gulf petroleum supply chain. *Strategic Outsourcing: An International Journal*, 9(1), 2-21.
- Msimangira K. A. B., & Techa, A. P., (2014). Global supply chain practices and problems facing developing countries: A study in Tanzania. *Operations and Supply Chain Management: An International Journal*, 7(3), 130-138.
- Najafbagy, R. (2006). Development and change, and the role of the state: The case of Iran. In B. Cvjeticanin (Ed.), *Institute for International Relation* (Culture-link Joint Publications Series), Zagreb, Croatia.
- Nguyen L. D., Ogunlana S. O., & Lan D. T. X. (2004). A study on project success factors in large construction projects in Vietnam. *Engineering, Construction and Architectural Management, and Economics*, 11(6), 404-413.
- Oshri, I., Kotlarsky, J., & Willcocks, L. P. (2009). *The handbook of global outsourcing and offshoring*, New York: Palgrave-MacMillan.
- Pettersson, A. I., & Segerstedt, A. (2013). To evaluate cost saving in a supply chain: Two examples from Ericsson in the telecom industry. *Operations and Supply Chain Management: An International Journal*, 6(3), 94-102.
- Quinn, J. B. (2000). Outsourcing innovation: The new engine of growth. *Sloan Management Review*, 41(4), 13-28.
- Sambasivan, M., & Yau, W. S. (2007). Causes and effects of delays in Malaysian construction industry. *International Journal of Project Management*, 25(5), 517-526.
- Saunders, M. N. K., Lewis, P., & Thornhill, A. (2015). *Research methods for business students* (7th ed.). London: Prentice Hall.
- Sedahi, M. S., & Davarzani, H. (2010). *Privatization and outsourcing: Successful and failed samples*. Tehran, Iran: The Institute for Trade Studies and Research.
- Sepehri, M. (2013). Strategic selection and empowerment of supplier portfolios case: Oil and gas industries in Iran. *Procedia - Social and Behavioral Science*, 74, 51-60.
- Seth, M., Goyal, D. P., & Kiran, R. (2015). Development of a model for successful implementation of supply chain management information system in Indian automotive industry. *SAGE Publication*, 19(3), 248-262.
- Slack, N., Nrandon-Joes, A. Johnston, R., & Betts, A. (2015). *Operations and process management* (4th ed.). London: Pearson.
- UN Security Council endorses Iran nuclear deal (2015, July 20), *BBC News*. Retrieved from <http://www.bbc.com/news/world-middle-east-33594937>
- Tabassi, A. A., & Bakar, A. H. A. (2010). Towards assessing the leadership style and quality of transformational leadership: The case of construction firms of Iran. *Journal of Technology Management in China*, 5(3), 245-258.

The World Bank (2016). *Iran's economic outlook- Spring 2016*, Retrieved from

<http://www.worldbank.org/en/country/iran/publication/economic-outlook-spring-2016>

The World Factbook: Iran (2016, November). Central Intelligence Agency (CIA). Retrieved from

<https://www.cia.gov/library/publications/the-world-factbook/geos/ir.html>

Valmohammadi, C. (2012a). Investigating outsourcing implementation in Iranian organizations. *Research Journal of Applied Sciences Engineering and Technology*, 4(3), 186-190.

Valmohammadi, C. (2012b). Investigating supply chain management practices in Iranian manufacturing organization. *Operations and Supply Chain Management: An International Journal*, 6(1), 36-42.

Willcocks, L. P., (2011). Machiavelli, management and outsourcing: still on the learning curve. *Strategic Outsourcing: An International Journal*, 4(1), 5-12.

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