A REVIEW OF THE LITERATURE ON IT OUTSOURCING: POLISH RESEARCH VERSUS OTHER COUNTRIES' RESEARCH

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Abstract

Background. Studies of foreign literature on IT outsourcing indicate the variety of topics covered in the research. The comparison of these studies with the research published in Poland indicates a disproportion of the number and quality of research, and points to a gap in knowledge about IT outsourcing in Poland.

Research aim. The aim of the research would be to know the state of research on IT outsourcing in Poland.

Methodology. The method of literature study in relation to the results of studies on IT outsourcing in Polish enterprises was used, as well as with regard to some of the results in other countries and the methods of analysis and synthesis in relation to the comparison of Polish research in other countries. The reviews of published literature (Lacity, Gonzalez) were presented.

Key findings. The contents of dozens of publications on Polish and foreign IT outsourcing were analysed, and compared. The result of the paper is a recommendation to do research comparable to US and Spanish studies. So in the consequence of the future research it would be possible to make recommendations for users and providers of this rapidly growing service.

Keywords: IT outsourcing, review, comparison, Poland, world.

INTRODUCTION

IT outsourcing is a rapidly expanding field of IT services and we witness its development also in Poland. According to reports, an estimated increase in the IT outsourcing market is approximately 7% per year (IT Report, p. 5). It follows strong interest in this area of

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business activity, but also the interest of enterprises in outsourcing IT related activities.

In Poland, there have been specialised portals dedicated to outsourcing for several years, for instance the portal at: http://www.outsourcingportal.eu/pl/, and there are also specialised journals dedicated to business, publishing press releases, reports and articles, for example Outsourcing & More magazine available at: http://www.outsourcingandmore.pl/pl/. Interest in business services is high, both the providers and recipients of services which, thus resulted in the emergence of these portals, magazines, as well as a number of advisory organisations.

Business interest in outsourcing IT accompanies the interest of scientists who pursue studies of this phenomenon in the Polish economy. National studies should be confronted with the results of studies conducted in other countries. The present paper serves this purpose.

THE SUBJECT AND THE PURPOSE OF RESEARCH, RESEARCH METHODS AND THE PROBLEM

The subject of the research is published literature presenting research on IT outsourcing in selected countries. The aim of this paper is to determine the state of research on IT outsourcing in Poland and comparing it with research in other countries, especially those studies that are published in English. The comparison has led to demonstrate the differences in the state of research in Poland and other countries, and to show gaps in knowledge about IT outsourcing in our country. To accomplish the formulated study, the method of literature study, analysis, synthesis, and comparison was used. In particular, literature study of papers (scientific papers, monographs, and specialized articles) in Polish was used. The analysis was realised on the basis of research in our country and papers (scientific articles) in Polish and in English, realised on the basis of studies in other countries.

The research problem was formulated as follows: initial literature research on IT outsourcing in Poland indicates a gap in knowledge on the analysed phenomenon. Therefore, there is a need to define in detail the state of the phenomenon of outsourcing in Polish enterprises. The next stage of research will be comparing the survey of IT outsourcing in Poland with the state in other countries. The purpose of this comparison

is to show the differences in the state of research and knowledge gaps in the reporting area and to suggest lines of research aimed at filling the gaps. The problem is cognitive.

OUTSOURCING, IT OUTSOURCING IN THE WORLD AND IN POLAND IN A HISTORICAL PERSPECTIVE

Outsourcing is not a new phenomenon, neither in the world nor in Poland, although under the present name and the meaning of the concept it came into practice in the science of managing in the 80s, and into the theory of management in the 90s of the last century (Trocki, 2001, pp. 40–44). As indicated by Obłój (for Trocki, 2001, p. 40), all companies benefit from outsourcing because they have suppliers and subcontractors. From this statement it should be noted that the phenomenon of outsourcing spread on a large scale during the development of craft production in the 18th century. The system of cooperative relations, called the outsourcing ties nowadays, was established. The Industrial Revolution in the late nineteenth and early twentieth century contributed to the development of large industrial organisations and, at the same time, meant that the importance of manufactories' craft was significantly reduced. The size of the phenomenon of outsourcing was reduced. It was not until the emergence of a new and the growth of existing management concept in the 1960s and 70s meant that the concept of outsourcing revived. The forerunner of this wave of outsourcing development as a phenomenon, especially IT outsourcing, is R. Perot, whose company was paid to realise IT functions by the Frito-Lay concern. It was the management of IT equipment. General Motors in the 1980s used the term outsourcing to call a process of external supplies of automotive parts. The evolution of outsourcing (for Szymanski, 1999; Trocki, 2001, p. 43) took place in the following progressive stages:

- outsourcing as a method of costs reduction;
- outsourcing as a way to reduce the risk of technological changes;
- outsourcing as a concept focusing on key activities;
- outsourcing as a strategic functioning choice.

In the following years, the phenomenon greatly expanded to other areas of business organisations and companies, covering almost all areas, except for the core/key business activity of the organisation.

The development of outsourcing in Poland was followed similarly to its development in other countries. In contrast, the development of IT outsourcing developed slightly ahead of the development of the phenomena in the world. The precursor of IT outsourcing in Poland is a state-owned enterprise ZETO (Plant Electronic Computing Technology) created by the decree of the President of the Committee of Science and Technology in 1964 with their headquarters in a number of large Polish cities. The purpose of the company was the provision of data collection and processing for state institutions, organisations, and companies. In the following years ZETO was repeatedly transformed, the offices in some cities were closed, but there are offices, which were transformed and changed and they operate nowadays, having other names, and currently provide services in the field of IT outsourcing. It is a fact that Poland was very early in the group of the countries developing computational techniques, including IT outsourcing services.

QUANTITATIVE STUDIES OF IT OUTSOURCING IN POLAND

The research of IT outsourcing in Poland in quantitative terms is presented in a monograph by M. Kłos (2009). The author presents a study on the phenomenon of outsourcing conducted on a group of 322 Polish companies. The research concerned various areas of outsourcing, such as information technology/telecommunications, general management/administration, production management, finance, HR, logistics, and marketing.

According to the presented research area of information technology /telecommunications is the third most commonly outsourced area after logistics and general management/administration. In the surveyed companies IT outsourcing is used in the following categories, listed in order from the most to least frequently outsourced:
- computers, network access – over 55%;
- security management – over 35%;
- processing centres, backup servers – about 35%;
- infrastructure management system – over 30%,
- sharing software – over 30%,
- outsourcing of equipment, purchase of services – over 25%,
- external data centre infrastructure – over 15%.

They are mentioned, the data on the increase in outsourcing, leaving it at the current level or its reducing and resignation. The surveyed companies intend to increase the scope of IT outsourcing from 4.2% to 11.8% across all the presented categories. They intend to carry out activities in the following categories (decreasing order): computers, network access, processing centres, backup servers, providing software and security management, and external data centres with infrastructure. The surveyed companies, that use outsourcing, intend to leave it at the current level in each category (decreasing order), from security management – 26.9% to infrastructure management system – 10%. While reducing the scope or resignation of IT outsourcing is expected in four categories to seven (decreasing order, values of about 1%): security management, processing centres, backup servers, computers, network access, and external data centre infrastructure. This means that the reduction or cancellation of outsourcing is negligible. Among the surveyed companies, a small percentage of about 4.8% plan to use IT outsourcing in the future. Quite a significant percentage ranging from 33.3% to 66.7% of companies, do not see the need for outsourcing.

A quantitative survey of IT outsourcing deals with the editors of specialised magazines (for example Computerword), consulting companies (e.g. Sekwencja Sp. z o.o., KPMG a member of KPMG International, or BCC Data Centres), research organisations (e.g. ICAN Research – a research unit of the publisher of Harvard Business Review Poland, International Outsourcing Institute), professional organisations (such as the Outsourcing Institute), portals (for example outsourcingportal.pl), agencies (Polish Information and Foreign Investment Agency S.A.).

It should be noted, however, that the results of research published by specialised magazines, portals, and websites of the above-listed organisations are generally not conducted on the basis of strictly scientific research assumptions, do not include research questions or hypotheses, do not lead to the discovery of not established so far dependence, or undermine the existing knowledge, or update the state of knowledge. They aim at specifying the size of the phenomenon, and because some of them are cyclical, they allow tracking trends over time. Some of the presented studies show the extent and trends of the phenomenon with the aim to encourage potential customers to benefit from outsourcing services provided by these organisations. If an organisation presents

a study on a group of several hundred companies it may seem like a large and competent organisation because it has research facilities to conduct such extensive research, and at the same time reliable, because it does not focus only on the provision of services. Also, a research unit named ICAN Research is not an entity, which carries out research to extend knowledge in the area of the lack of knowledge. It is an organisation that conducts research on organisations and enterprises, corporations, as well as affluent and rich Poles. It is an organisation, which is focused on achieving profit, this is the reason why its activity is focused on segments that can bring profit. The objectives of the International Institute for Outsource is systematising and research on the development of outsourcing. But this organisation is focused on meeting the expectations of the customer and the customer is the most important for it. Its research results have a commercial nature and should give profit. Therefore, the results of the Institute research serve to achieve its business objectives.

The purpose of the outsourcingportal.pl portal is gathering and sharing knowledge about the organisations providing outsourcing services, as well as studies and reports prepared by these organisations. It also publishes information about the offer of specialised courses and trainings. Polish Information and Foreign Investment Agency S.A. is a company of the State Treasury. In the Statute of the Agency's promotional activity supporting foreign investors in Poland and commercial activity is also recorded. In 2015 the organisation published a report for 10 years of the business services sector in Poland. The report contains data on a survey of 659 companies in Poland, including IT service providers. The results are of an informative nature and their results cannot be the basis of scientific research.

In summary, these organisations (journals, consulting firms, research institutes, professional organizations, agencies) are commercial in nature and their research and publications serve to disseminate the data relating to the review of outsourcing. The research which has been carried out by these organisations is used primarily for the achievement of their own business objectives with intention to attract new customers, and in the longer term – to expand business and increase their market share. Therefore, the presented research cannot be the basis for reflection and does not have any scientific value.

QUALITATIVE RESEARCH OF IT OUTSOURCING IN POLAND

Much deeper qualitative research on IT outsourcing was conducted in Polish companies. Several Polish scientists have explored this issue and they are: J. Auksztol (2008), M. Radło (2013), and J. Kluk (2014).

J. Auksztol's monograph presented an empirical outsourcing market research using the following techniques: case study and interview. The research problem is defined in a form of a question about the factors that make the venture outsourcing large scale is implemented successfully, despite numerous emerging threats and distortion of the initial assumptions (Auksztol, 2008, p. 100). The author conducted case studies and in-depth analyses of seven outsourcing projects.

Based on the survey, the author makes a series of proposals, of which the most important are as follows (Auksztol, 2008, pp. 135–136):

- the factor determining the success of an outsourcing project is an agreement between the parties, particularly its form and content;
- it is not possible to formulate an agreement that describes all possible events, the reason is the complexity of the project;
- the precision of the contract has a positive effect on the success of the project;
- imprecise wording of the agreement is the cause of conflicts and conflicting interpretations;
- partnership relations of participants positively affect the success of the project;
- describing in the contract the procedure of how to resolve conflicts positively affect the success of the project;
- a fixed price accompanying indefinite conditions of the agreement leads to an unauthorised benefit of one party over another;
- outsourcing allows creating conditions for the development of professional staff, increasing the efficiency of business processes and focus on core business;
- the success of outsourcing projects of a strategic nature depends on having your own qualified staff, capable of a thorough evaluation of the services provided;

- relations of power without the compensatory measures adversely affects the success of the project;
- partnership relations and accuracy of the agreement positively affects the success of the project.

Based on these conclusions, the author proposed a new model of IT services, which consists of two spheres (Auksztol, 2008, pp. 153–161): the subject of the contract as a basic element of contractual relationships and 'contractual' institutions describing behaviour to implement project realisation in accordance with the clasped objectives. The contractual agreement, as a matter of contract, can be either complete or incomplete.

Among the incomplete outsourcing contracts the author distinguishes:

- outsourcing contract of a merchandise nature;
- partnership outsourcing contract;
- incomplete outsourcing contract balanced partnership relation;
- incomplete outsourcing contract offset by force;
- incomplete outsourcing contract without sustainability.

An innovative monograph is especially a formulation of the concept of the institution as a subset of contractual provisions in the contract which purpose is to determine the rules of cooperation and the ways of resolving potential conflicts between the parties. They do not specify the rights and obligations of the parties, a form of performance bonds and procedures in the event of disputes. Among the contractual institutions they have been awarded the following categories (which does not cover all categories):

- institutions of contractual project management; the difference between the traditional concept of project management and the one discussed is on the localisation of the organization, when you take into account different hierarchies (an organisation which orders and realises the project) and their divergent aims;
- institutions' acceptance of the object of the contract; the success of the project depends not only on the precise definition of the scope of work, but also on procedures to enable their unequivocal verification;
- institutions' balancing escalation of the agreement; regulations enabling the resolution of conflicts arising from different interpretations of the provisions of the agreement.

The author states that the monograph includes the impact of social factors on the realisation of outsourcing projects, in particular:

1. Selection and configuration of a particular form of IT outsourcing.
2. Detailing of the contract, which leads to an 'upgrade' contract.
3. Introduction of contractual institutions, which allow you to specify the rules of cooperation and ways of solving conflicts between the parties.

Another monograph, which contains case studies of IT outsourcing, is a dissertation by M. Radło (2013). The monograph is entitled *Offshoring and outsourcing. The implications for the economy and businesses* and concerns the fragmentation of enterprises through offshoring and outsourcing and the impact of these phenomena on the economies of countries and the world economy. One chapter contains case studies of two large companies in the IT sector: an integrated network international corporation and an emerging international corporation (Radło, 2013, pp. 229–252). The author draws conclusions, and they are as follows:

–   at each stage of the internationalisation of enterprises, there are various possibilities of fragmentation of production, fragmentation increases with maturation of the enterprise;
–   internationalisation affects the growth of fragmentation by taking advantage of economies of scale and arbitration of the costs;
–   fragmentation is possible in the early stages of corporate development for companies established and operating on a global scale; however, it depends on the specifics of the sector in which the corporation operates.

The latest monograph about IT outsourcing is the publication by J. Kluk (2014). It contains case studies of seven information technology outsourcing projects relating to software development. In the research, the author uses the methods of multiple case studies and a direct in-depth interview. The author verifies the main and detailed hypotheses (Kluk, 2014, pp. 148–166):

1. In the IT outsourcing projects, wherein the step of identifying and analysing the requirements and the stage of designing and implementing the system are performed by different suppliers, there are problems in the management requirements and they limit the ability to produce a prescribed period of the system in accordance with the needs of the customer.
2. The application of IT outsourcing contributes to the complications at the stage of verification and approval by the client program,

promotes the need for additional modifications determining the reception system and reduces the chance of providing the software within a specified period.

3. A lack in the identifying team of sufficient technical expertise, knowledge of the architecture and the restrictions adopted in the manufacturing process increases the risk of agreement with the customer requirements that cannot be realised.

4. When the specifying requirements for the system and design are distributed among different performers, it will be followed by disorder in information of the project, and it will resulted in an incomplete and untimely information flow.

5. Restrictions on the project team participation in identifying the requirements and limiting its contact with the customer favour design and production of software incompatible with the needs of the customer.

Verification of the hypotheses leads to the development of a model of requirements identification in IT outsourcing projects. The proposed model consists of two categories, which in turn consist of activities:

1. Management of the relations
    1.1. Personnel management (team identifying, analysing, and spec requirements)
    1.2. Knowledge management (knowledge management in the project)
    1.3. Communication Management (communications management in the project).
2. Technical aspects
    2.1. Requirements management
    2.2. Support of communication (communication tool support).

The model is designed to help operators implement outsourcing projects in the identification of requirements, with the objective to eliminate or reduce failures of the entities involved in the implementation of information technology outsourcing projects, especially those concerning software development.

To summarise the published studies conducted in Poland, it should be noted that each of them covers one aspect of IT outsourcing.

The monograph by J. Auksztol identifies the factors that make that IT outsourcing large scale project is implemented successfully, despite numerous emerging threats and distortion of the initial assumptions. It includes especially the impact of previously disregarded social factors:

selection and configuration of a particular form of IT outsourcing, specifying the details of the contract, which leads to an 'upgrade' contract and the introduction of contractual institutions, which allow specifying the rules of cooperation and the ways of solving conflicts between the parties.

The monograph by M. Radło focuses on the fragmentation of enterprises through offshoring and outsourcing and the impact of these phenomena on the economies of countries and the world economy. Whereas, J. Kluk's monograph applies information technology outsourcing projects to software development. The author presents a model of identification requirements in outsourcing IT projects, which consists of five groups of components. It will streamline the management of outsourcing relationships and will help in overcoming the existing problems, which in turn would allow successful completion of the project.

THE STATE OF RESEARCH ON IT OUTSOURCING IN PAPERS IN ENGLISH

The research on the phenomenon of IT outsourcing has been conducted in many countries for years. Periodically, review articles on research carried out on this phenomenon are published. One of the pioneers of research on IT outsourcing, continuing on current research in this area, is a group of scientists from the United States, especially M. Lacity and L. Willcocks and their associates. As they have been conducting research on IT outsourcing for more than 20 years it allows them for a good understanding of the practice of outsourcing.

One of the series of review articles about the state of research on IT outsourcing by these two scientists with their colleagues was published in 2009. The authors analysed 191 articles related to IT outsourcing, or as they call it information technology outsourcing (ITO). The analysed collection was selected from a large group of papers, containing 765 articles. After reading them, the abstracts were eliminated from the original collection of 408 items that do not relate directly to IT outsourcing, which gave 357 articles published in 71 journals.

Some of the articles relate to broader issues, thus eventually the analysed group contains 191 articles. For the analysis of publications

containing both quantitative and qualitative research the method-
ology developed by Jeyaraj and others (2006) it applied, comprising
a unique coding technique. In the course of the analysis, the authors
identified 174 variables, of which 130 were independent variables,
17 variables were dependent, and 27 were both independent and
dependent.

The set of the analysed publications was divided according to their
subject into six groups, which are presented in the Table 1.

Table 1. IT outsourcing IT topic related to practice

	Topic	Questions relevant to practice	Number of articles
1.	Determinants of IT outsourcing	Which types of firms are more likely to outsource IT?	73
2.	IT outsourcing strategy	What is the strategic intent behind IT outsourcing decisions? What are the strategic effects of IT outsourcing decisions?	24
3.	IT outsourcing risks	What are the risks of IT outsourcing? How are IT outsourcing risks mitigated?	34
4.	Determinants of IT outsourcing success	Which practices increase the likelihood that a client's outsourcing decision will be successful?	86
5.	Client and supplier capabilities	Which capabilities do client firms need to develop to successfully engage IT outsourcing suppliers? Which capabilities do client firms seek in an IT outsourcing supplier?	64
6.	Sourcing varietals	How do practices differ when pursuing different types of outsourcing such as offshore outsourcing, application service provision, and business process outsourcing?	49

Source: M.C. Lacity, S.A. Khan, L.P. Willcocks (2009). A review of the IT outsourcing literature:
Insights for practice. *Journal of Strategic Information Systems, 18*, p. 132.

As for the determinants of IT, outsourcing is one of the most
deeply studied areas. Scientists studying this area asked to answer
the question what types of businesses are more likely to outsource
IT. The following features of the client company are mentioned:
1) financial attributes: firm profitability, return on assets, dividends,
operating costs, liquidity; 2) characteristics of the organisation:
volume of revenues, number of employees, size of the IT department

at the client; 3) industry attributes: industry enterprises, type of ownership. The authors draw the following practical conclusions: companies that are willing to implement IT outsourcing on a large scale are in a worse financial condition compared to other companies in the industry.

The above table presents the research material on the phenomenon of IT outsourcing, covering a wide range of issues that make up this phenomenon. The number of publications on particular issues is impressive. The study also includes a significant period of time, bearing in mind that the activities of IT outsourcing appeared in the late 1970s and 1980s.

Another review article by M. Lacity and L. Willcocks with co-authors was published a year later in 2010. The main purpose in the review was to answer two research questions: What has the empirical academic literature found about IT outsourcing decisions and outcomes? What are the gaps in knowledge to consider in future IT outsourcing research? To answer these questions, the authors examined 164 empirical IT outsourcing articles published during the period from 1992 to 2010 in 50 journals. They adapted a method used by Jeyaraj and others (2006). During the research they coded 36 dependent variables, 138 independent variables, and 741 relationships between independent and dependent variables.

The authors have also developed two models of IT outsourcing: the model of findings on IT outsourcing decisions and the model of findings on IT outsourcing outcomes. The model of findings on IT outsourcing decisions includes independent variables associated with the process of the decision to outsource, the attributes of the transaction, the characteristics of the client company, and the source of outsourcing. The model of findings on IT outsourcing outcomes includes the independent variables associated with the customer and service delivery capabilities, characteristics of the outsourcing relationship, management of contract, the characteristics of decision, and the attributes of the transaction.

The identified gaps in knowledge on IT outsourcing and the proposed research directions, according to the authors, refer to the strategic motivation, environmental impacts, dynamic impacts, configuration and portfolio approach, global targets, new models, extent of the theory, and development of the existing theories.

Summary of literature reviews is presented in the Table 2.

Table 2. IT outsourcing literature reviews

Authors	Time period of included studies	Sample size	Number of journals included	Analyses
Dibbern and others (2004)	1992–2000	84 IT outsourcing articles	21, including 2 proceedings	The authors categorized and analysed the literature by outsourcing stage, research approach, reference theory used, and unit of analysis.
Fjermestad, Saitta (2005)	1981–2004	29 articles (some articles are from strategic management)	Not discussed	The authors did a selective review of 29 articles for the purposes of developing a critical factors framework.
Mahnke and others (2005)	1995–2002	19 IT outsourcing articles	Not discussed	The authors propose a process model of ITO based on empirical findings from Transaction Cost Economics, Competence Perspective, and the Relational View.
Gonzalez and others (2006)	1988–2005	131 IT outsourcing articles	18	The authors categorised and analysed the literature by research approach, research perspective (i.e. client, supplier, or both), and author.
Lacity and others (2009)	1990–2008	191 conceptual and empirical IT outsourcing articles	70	The authors organised the literature that answered six practitioner questions about ITO, such as What is the strategic intent behind outsourcing decisions? and What are the risks of ITO and how are they mitigated?
Alsudairi, Dwivedi (2010)	1992–2008	315 articles, 128 IT outsourcing articles	30	The authors categorised the literature by the frequency of articles published by subject, journal, author, university affiliation, and citations.
The present review of the literature	1992–2010	164 empirical IT outsourcing articles	50	The authors summarise the empirical academic literature by coding the independent and dependent variables and their relationships. The paper also addresses gaps in knowledge.

Source: M.C. Lacity, S.A. Khan, A. Yan, L.P. Willcocks (2010). A review of the IT outsourcing empirical literature and future research direction. *Journal of Information Technology, 25*, p. 397.

The publication contains a thorough analysis of published scientific papers and articles containing literature reviews. It is a compendium of knowledge about research on IT outsourcing.

Particularly noteworthy are the proposed models of IT outsourcing: the model of findings on IT outsourcing decisions (Figure 1) and the model of findings on IT outsourcing outcomes presented below (Figure 2).

The authors identified factors influencing the decision to outsource IT and these decisions are classed on a scale of four degrees, from the significant impact of positive and significant – more than 80% to the significant impact of negative and significant – more than 80%. The factors are grouped into the following groups: motivations of outsourcing, characteristics of the client firm, transaction attributes, and influence sources.

The following factors have a significant positive impact: cost reduction, focus on core capabilities, access to skill/expertise, business /process improvements, technical reasons, and mimetics.

Whereas, the following factors have a significant negative impact: fear of losing control and transaction costs.

Similarly, in the four-level scale factors influencing the effects of IT outsourcing were classified. They were grouped into 8 groups: relationship characteristics, client firm capabilities, IT outsourcing decision, client firm characteristics, contractual governance, supplier firm capabilities, transaction attributes, and decision characteristics.

The following factors have a significant positive impact: effective knowledge sharing, trust, communication, partnership view, prior client /supplier working relationship, relationship quality, supplier management capability, IS technical and methodological capability – client, client experience with outsourcing, contract detail, contract volume, IS human resource management capability – supplier, IS technical and methodo logical capability – supplier, domain understanding, and top management commitment/support.

Whereas, the following factors have a significant negative impact have: cultural distance, uncertainty, and measurement difficulty.

An important issue in research studies and publications in English on IT outsourcing is that there are many quantitative studies of this phenomenon, and they are repeated periodically. Quantitative studies of IT outsourcing are cited in papers by: L. Loh, N. Venkatraman (1992); K.P. Arnett, M.C. Jones (1994); J.S. Collins, R.A. Millen (1995);

MOTIVATIONS TO OUTSOURCE:

- Cost Reduction (++)
- Focus on Core Capabilities (++)
- Access to Skills/Expertise (++)
- Business/Process Improvements (++)
- Technical Reasons (++)
- Political Reasons (+)
- Concern for Security (–)
- Fear of Losing Control (– –)

TRANSACTION ATTRIBUTES:

- Uncertainty (–)
- Critical Role of IS – Transaction (–)
- Transaction Costs (– –)
- Business Risk (–)

INFLUENCE SOURCES:

- Mimetic (++)

IT outsourcingu decisions

CLIENT FIRM CHARACTERISTICS:

- Prior IS Department Performance (–)

LEGEND:

(++) more than 80% of the evidence is positive and significant
(+) 60% to 80% of the evidence is positive and significant
(– –) more than 80% of the evidence is negative and significant
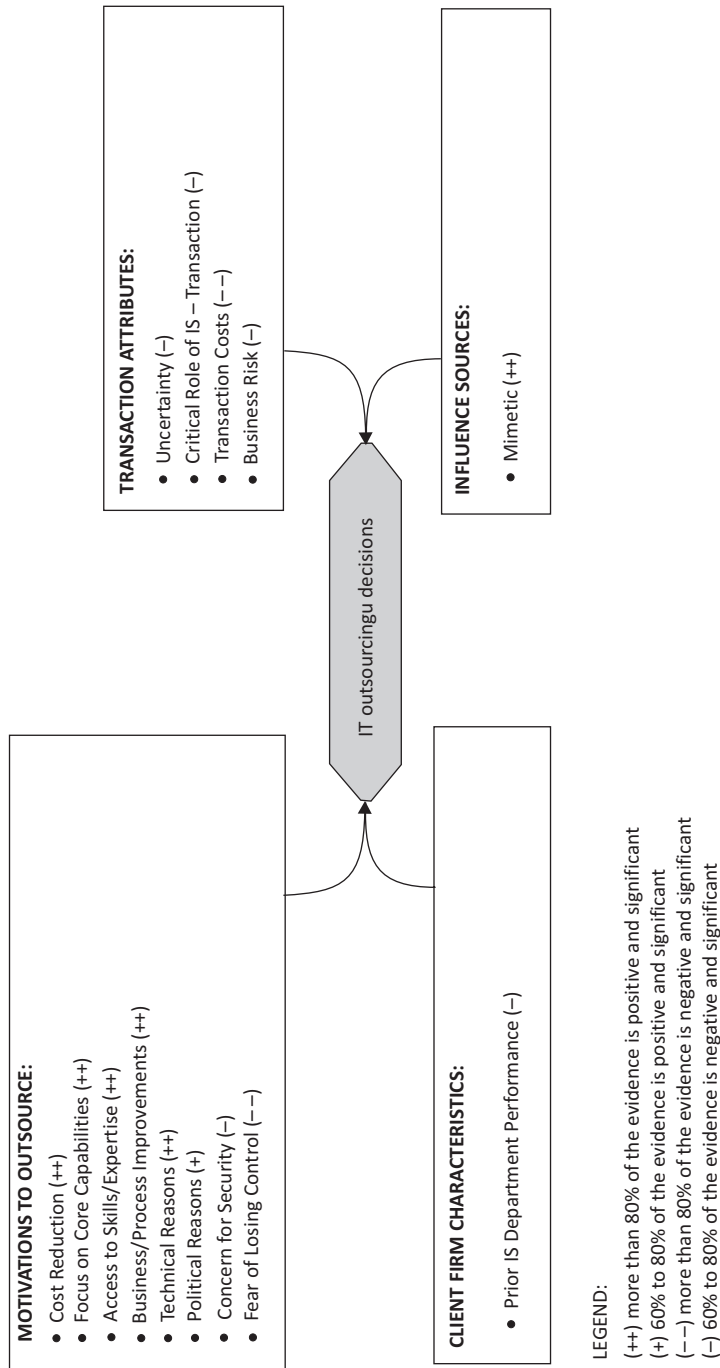(–) 60% to 80% of the evidence is negative and significant

Figure 1. Descriptive model of findings on IT outsourcing decisions

Source: M.C. Lacity, S.A. Khan, A. Yan, L.P. Willcocks (2010). A review of the IT outsourcing empirical literature and future research direction. *Journal of Information Technology, 25,* p. 408.

RELATIONSHIP CHARACTERISTICS:
- Effective Knowledge Sharing (++)
- Trust (++)
- Communication (++)
- Partnership View (++)
- Prior Client/Supplier Working Relationship (++)
- Relationship Quality (+)
- Cultural Distance (– –)

CONTRACTUAL GOVERNANCE:
- Contract Detail (++)
- Contract Size (++)
- Contract Type (MM)
- Control Mechanisms (MM)

SUPPLIER FIRM CAPABILITIES:
- IS Human Resource Management Capability – Supplier (++)
- IS Technical and Methodological Capability – Supplier (++)
- Domain Understanding (++)

TRANSACTION ATTRIBUTES:
- Uncertainty (– –)
- Measurement Difficulty (– –)

DECISION CHARACTERISTICS:
- Top Management Commitment/Support (++)
- Evaluation Process (MM)

CLIENT FIRM CAPABILITIES:
- Supplier Management Capability (++)
- Contract Negotiation Capability (++)
- IS Technical and Methodological Capability – Client (++)
- Cultural Distance Management Capability (+)
- Risk Management Capability – Client (+)

IT OUTSOURCING DECISION:
- Outsourcing Decision – Make or Buy (+)

CLIENT FIRM CHARACTERISTICS:
- Client Experience with Outsourcing (++)

IT outsourcingu outcomes

LEGEND:

(++) more than 80% of the evidence is positive and significant
(+) 60% to 80% of the evidence is positive and significant
(– –) more than 80% of the evidence is negative and significant
(–) 60% to 80% of the evidence is negative and significant
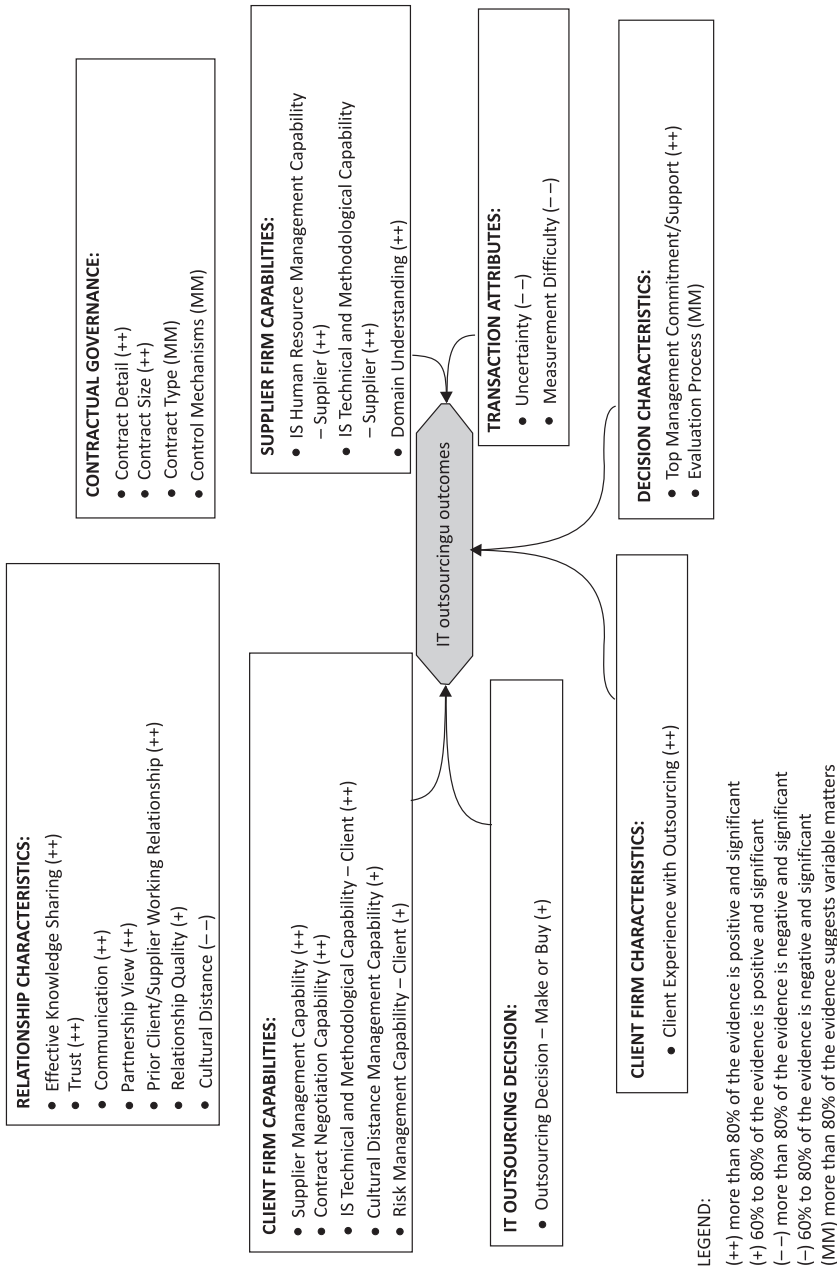(MM) more than 80% of the evidence suggests variable matters

Figure 2. Descriptive model of findings on IT outsourcing outcomes

Source: M.C. Lacity, S.A. Khan, A. Yan, L.P. Willcocks (2010). A review of the IT outsourcing empirical literature and future research direction. *Journal of Information Technology, 25,* p. 410.

M. Lacity, L. Willcocks (1998); L. Willcocks, M. Lacity, G. Fitzgerald (1995); L. Willcocks, G. Fitzgerald, M. Lacity (1996); L. Willcocks (1997); M. Lacity, L. Willcocks (1998); J. Barthélemy, D. Geyer (2005); M.R. Gonzalez, J.L. Gasco, J. Llopis (2005a); M. Miozzo, D. Grimshaw (2005); J. Fisher, R. Hirschheim, R. Jacobs (2008); M.R. Gonzalez, J.L. Gasco, J. Llopis (2010b); M.C. Lacity, S. Solomon, A. Yan, L.P. Willcocks (2011); J. Słoniec (2011); A Peslak, (2012); V. Sharma, V. Sharma (2012); M.R. Gonzalez, J.L. Gasco, J. Llopis (2015).

The article by L. Willcocks, G. Fitzgerald, D. Feeny (1995) presents research and it is a case study of 30 outsourcing projects implemented in the UK and Ireland and quantitative research of 162 outsourcing projects in Europe. They concern the consequences resulting from the strategic choice for enterprise IT outsourcing as an alternative for the implementation of IT tasks within the organisation. According to the presented results, 80% of organisations considering the use of outsourcing, while 47% have implemented outsourcing in some or all of the IT activities in their organisations. However, 70% of companies surveyed do not have a formal plan for outsourcing, while 43% of those using outsourcing have such a plan.

Based on the study, the authors identified the general conditions conducive to the decision to outsource IT and they are:

- high technological maturity of the organisation;
- vendor service offers better conditions for implementing IT in relation to their implementation within;
- IT operations cannot belong to the key business activity;
- assurance of the agreement for the entire period.

The authors also came to the conclusion that the success of outsourcing depends on action aimed at minimising the additional risks associated with the use of outsourcing.

M.R. Gonzalez, J.L. Gasco, J. Llopis (2010) present research on outsourcing carried out on a group of 329 Spanish companies among 4,107 large companies on the list of the largest companies of this country. The authors presented the cause of IT outsourcing activities and their risks. Among the reasons of IT outsourcing they the following are mentioned in order of importance:

- focus on strategic issues;
- improve the flexibility of the IT department;
- improve the quality of IT;
- eliminate cumbersome operations, routine and problematic;

–   increasing access to modern technology;
–   reduce the risk of obsolescence of IT;
–   staff cost savings;
–   provide alternatives for IT activities within the company;
–   savings on IT technologies;
–   following the fashion.

The reasons of the risk of outsourcing IT activities are the following, in order of importance:

–   qualifications of provider staff;
–   supplier does not fulfil the contract agreement;
–   excessive dependence on suppliers;
–   the loss of core skills and competences;
–   inability to adapt to new technologies;
–   hidden costs of the agreement;
–   unclear cost-benefit considerations;
–   security issues;
–   irreversibility of an outsourcing decision;
–   the issues/problems of the employees;
–   possible resistance of the workers.

The authors presented the study during the time of the causes and risks of IT outsourcing in large Spanish companies in a period of five years (2006 year compared to 2001) (Table 3).

Table 3. Summary of research into the causes and risks of IT outsourcing during the time

Factors of IT outsourcing	Factor's rank in the year	
I. Reason of IT outsourcing	2006	2001
Focus on strategic issues	1	1
Improve the flexibility of the IT department	2	2
Improve the quality of IT	3	3
Eliminate cumbersome operations, routine and problematic	4	4
Increasing access to modern technology	5	6
Reduce the risk of obsolescence of IT	6	-
Staff cost savings	7	5
Provide alternatives for IT activities within the company	8	8
Savings on IT technologies	9	7
Following the fashion	10	9

Table 3. cd.

	Factor's rank in the year	
Risk of IT outsourcing	2006	2001
Qualifications of provider staff	1	3
Supplier does not fulfil the contract agreement	2	4
Excessive dependence on suppliers	3	1
The loss of core skills and competences	4	2
Inability to adapt to new technologies	5	10
Hidden costs of the agreement	6	6
Unclear cost-benefit considerations	7	5
Security issues	8	7
Irreversibility of an outsourcing decision	9	8
The issues/problems of the employees	10	–

Source: M.R. Gonzalez, J.L. Gasco, J. Llopis (2010). Information systems offshore outsourcing: An exploratory study of motivations and risks in large Spanish firms. *Information Systems Management*, *27*, pp. 340–355.

In conclusion, the authors state that outsourcing gives Spanish companies the opportunity to improve the quality of services related to IT in their organisations and savings on personnel costs and materials (equipment and technologies IT) are seen as essential.

The risk is primarily associated with the service providers, especially with the lack of adequate qualifications of the service, the potential incompatibility of the agreement with its performance, and inability to use the new technology.

The authors emphasise that their research coincides with the results of authors from other countries.

COMPARISON OF THE STATE OF RESEARCH ON IT OUTSOURCING IN POLAND WITH RESEARCH IN OTHER COUNTRIES

In order to compare IT outsourcing research in Poland and in the world dozens of scientific publications (articles and monographs) were compared, especially publications including literature reviews.

Taking into account the specifics of the research and publications and their results in Poland, it should be noted that research studies in Poland are published in the form of doctoral theses, monographs,

and dissertations. Whereas, the results of research studies in English are published in the form of articles in specialised scientific journals.

As you can see in Tables 1 and 2, as well as the models of IT outsourcing shown in Figures 1 and 2, studies of IT outsourcing in the world include a large range of issues, which are not at all included in the research, or which are only mentioned in the studies published in Poland. You can see a gap in knowledge on the state of IT outsourcing in our country.

Table 4. List of the number of publications on IT outsourcing in Poland

Type of research	Poland
Quantitative	1 (study of various types of outsourcing, including IT, research sample 322 firms)
Qualitative	3 (research in the form of case studies, research samples respectively 7, 2, 7 outsourcing projects)

Source: own work.

The number of scientific studies on IT outsourcing and the number of Polish publications on this subject is not large.

The main research method in Poland was a case study of specific cases of outsourcing projects. There is a lack of quantitative studies of the phenomenon, carried out on a large group of firms. Polish scientists have not dealt with the recent study on the influence of independent factors on the decision to outsource IT and on the effects of IT outsourcing (models presented in Figures 1 and 2).

Tables 4 and 5 show and compare publications and research on IT outsourcing in Poland and other countries. The number of scientific publications on the topic is significant in the world. However, you can see a fundamental difference not in the number of studies, but in the field of research – in Poland, research in the form of a case study of a small group of enterprises' outsourcing (7, 2, and 7 projects respectively,) and quantitative research on a group of 322 firms, the study included various types of outsourcing including IT outsourcing, and among publications in English there are studies of large groups of companies – in a study conducted in the UK and Ireland – a case study of 30 projects outsourcing and quantitative research on 162 companies, in the Spanish study it was a research sample which amounted to 329 large companies. This fact shows the difference in the state of research, and confirms the knowledge gap in the study of IT outsourcing in Poland.

Table 5. Comparison of publications on IT outsourcing in Poland and other countries

Polish research			Other research		
No.	Study topic	Number of publications	No.	Study topic	Number of publications
1.	Quantitative outsourcing study (various types of outsourcing)	1	1.	Determinants of IT outsourcing	73
2.	Factors that make that an IT outsourcing large scale project is implemented successfully, impact of social factors, and contractual institutions	1	2.	IT outsourcing strategy	24
3.	Fragmentation of firms, impact of fragmentation on the economies of countries and the world economy	1	3.	IT outsourcing risks	34
4.	Model of identification requirements in outsourcing IT projects	1	4.	Determinants of IT outsourcing success	86
			5.	Client and supplier capabilities	64
			6.	Sourcing varietals	49

Source: own work.

Another issue is related to the results obtained in the framework of research.

In the quantitative Polish study the areas in which IT outsourcing is most commonly used and the prospects for its use are identified. The Polish qualitative research studies of IT outsourcing are aimed at practical application of research results.

In Auksztol's study, the author defines the factors affecting the success of the IT outsourcing project, specifies the types of outsourcing contracts and introduces the concept of contractual institutions, as part of a contract governing cooperation between the parties. He also stresses the importance of the influence of social factors on the realisation of outsourcing.

Radło's study shows conditions of firms' fragmentation at different stages of the internationalisation of enterprises.

While in Kluk's study, the model of requirements identification in outsourcing projects is proposed,

British, Irish, and American research concerns both theoretical and practical components. The general conditions conducive to decision on outsourcing, factors and their impact on the decision to outsource IT, and the effects of outsourcing were identified.

Spanish studies include established causes affecting outsourcing IT activities, risk factors, and the change of these factors over time.

The presented differences in the results of the studies show differences in the state of research and gaps in knowledge about IT outsourcing in Polish enterprises.

DISCUSSION & CONCLUSIONS

The presented research review of Polish and English publications concerning research on IT outsourcing indicate a gap in knowledge of IT outsourcing in Polish enterprises. None of the Polish scientists have been engaged in identifying the factors that influence the decisions of IT outsourcing, while the impacts of these factors have been studied by many scientists who publish in English. The published Polish studies did not relate to the factors affecting the effect of outsourcing. Thus, a gap in knowledge of the study of this phenomenon in Poland is demonstrated.

The research studies carried out in Poland were usually qualitative, while many foreign research studies of the phenomenon were quantitative.

The conclusion of the study is as follows: Polish quantitive research of IT outsourcing in Polish enterprises should be complemented. Practical issues requiring clarification relate to a number of issues, including the intention of affecting the strategic decision to outsource, outsourcing risks, and ways to minimise them, and outsourcing of critical factors. The range of possible research is big, it is hoped that the increase in the popularity of outsourcing will influence increasing the number of studies of this phenomenon.

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PRZEGLĄD LITERATURY W ZAKRESIE OUTSOURCINGU IT: WYNIKI POLSKICH BADAŃ NA TLE WYNIKÓW BADAŃ Z INNYCH KRAJÓW

Abstrakt

Tło badań. Studia literatury obcojęzycznej dotyczącej outsourcingu IT wskazują na różnorodność zagadnień poruszanych w badaniach zagranicznych. Porównanie tych badań z opublikowanymi w Polsce wskazuje na dysproporcję liczby i jakości badań oraz wskazuje na lukę w wiedzy o outsourcingu IT w Polsce.

Cel badań. Celem niniejszych badań jest poznanie stanu badań nad outsourcingiem IT w Polsce.

Metodologia. W opracowaniu wykorzystano metodę studium literaturowego w odniesieniu do wyników badań outsourcingu IT w polskich przedsiębiorstwach, jak również w odniesieniu do niektórych wyników w innych krajach oraz metody analizy i syntezy w odniesieniu do porównania badań polskich z badaniami w innych krajach. Wykorzystano przy tym opublikowane przeglądy literatury (Lacity, 2010; Gonzalez, 2005a, 2005b).

Kluczowe wnioski. Przeanalizowano zawartość kilkudziesięciu publikacji dotyczących outsourcingu IT polskich i zagranicznych, które następnie porównano. Przeprowadzone badania porównawcze wykazały lukę w wiedzy nad stanem badań outsourcingu IT w Polsce. Wynikiem jest rekomendacja przeprowadzenia badań porównywalnych do badań amerykańskich i hiszpańskich, tak aby w konsekwencji możliwe było sformułowanie zaleceń dla użytkowników i usługodawców tej dynamicznie rozwijającej się usługi.

Słowa kluczowe: outsoucing IT, przegląd literatury, porównanie, Polska, inne kraje