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Strategic dimension of outsourcing in the information technologies intensified businesses

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Abstract

In today's world, the advancement and usage of technology in the manufacturing industry continues to push the limits of the mind of the human being. This rapid change has been going for changing the world order. As the production of goods and services increases depending on the capital, the need for raw material has increased accordingly. The world order was re-established after 1980s, the trade volume has gradually increased and competitive environment was created with its opportunities and threats.

Although many methods were introduced in outsourcing, the businesses have mostly used strategic outsourcing and co-sourcing. Where the internal sources are not preferred in information technology function, different dimensions of outsourcing or co-sourcing have been taken into consideration. The variations between the two targeted methods are established and it is attempted to find out the more advantageous aspects of each of them in mutual comparison. The current study accentuates the advantages, problems and the solution proposals associated with outsourcing and co-sourcing. The study also discusses the utilization of outsourcing and co-sourcing in banking and financial sectors as well as the applications in other sectors.

Keywords: Outsourcing, Strategic Outsourcing, Co-sourcing, Information Technology

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1. Introduction

At present, the advancement of industrial technology has been continuing by pushing the limits of human intelligence. Such rapid development has started to force the world order to change. The production of goods has increased extremely, dragging the need for raw material along with it. The increase in trade volume and reforming of the trade routes has induced the application of new rules and regulations. The new rules on one hand and the new opportunities on the other hand have re-shaped the competition environment.

The new competitive environment made the works of the businesses even more challenging, causing them to be quick fish and even the purple cow, not only a big fish. In this sense, the firms have been mandated to be large, quick and distinguished so that they would survive.

Experiencing such a change requires specialization of the businesses in their primary functions. The high pressure from specialization compelled the businesses to outsource some of their ancillary functions. The businesses using outsourcing managed to specialize in their primary areas and gained some competitive edge.

Although many methods came forward in outsourcing, strategic outsourcing and co-sourcing have become two major options that businesses considered and chose upon the required inquiries.

2. Information Technologies

Information technologies bring forward the information sector before all else. In this sector, there are many information technologies firms of local and foreign origin and with different sizes. Some of the largest firms among them are IBM, Cisco, HP, Siemens, Alcatel, Microsoft, NCR, Koç Sistem, İşnet, and Superonline.

Secondly, it evokes the sectors the business models of which are based on information technologies. In these sectors, the business model called e-trade and B2B trade is fully shaped by information technologies and directly affected from each movement in this area.

Thirdly, information technologies should be designed within the businesses in the sectors including finance, education, publishing, advertisement, production, and transportation, for information technologies would provide such businesses with competitive advantage when they operate in their main areas.

The main areas of operation of the firms as stated in the first two categories are information technologies. We may classify such businesses under four categories: hardware companies, software companies, service companies, and firms in the specific sector. These categories will be explained in more detail below.

2.1. Hardware

The hardware category includes the physical devices related to the infrastructure of information technologies. These devices can be listed as follows:

- Server
- Personal Computer (Desktop)
- Personal Computer - Producer (Portable)
- Personal Computer - Wholesaler/ Distributor/ Dealer (Portable)
- Printing systems - Producer
- Printing systems - Wholesaler/ Distributor/ Dealer
- Data backup and storing hardware
- Data communication hardware
- Payment end hardware
- OT/VT Hardware

- Monitor
- OEM
- UPS
- Picture and sound systems
- Telecommunication infrastructure hardware
- PBX switchboard
- Mobile terminal hardware
- Fixed terminal hardware
- Miscellaneous hardware

2.2. Software

In the software category, coded programs and products operating on the hardware can be listed as follows:

- Operating system
- Office software- Wholesaler/ Distributor/ Dealer
- Security software
- Application development tools
- Document/archive management software
- CRM Software

2.3. Service

Service management includes usage of personal information and methods, i.e. the usage of intellectual capital. The related categories are:

- Consultancy
- Education
- System integration projects management
- Outsourcing usage service
- Support services
- Internet service
- Fixed phone service
- Mobile phone service - Operator
- Mobile phone service - Wholesaler/ Distributor/Dealer
- Value added telecommunication services

2.4. Special Section

In the special section, a functional classification is observed. The definition is made in accordance with the functions covered by the work:

- Consumer materials
- B2B e-Commerce
- B2C e-Commerce
- Retail
- Hardware export
- Software export
- Service export

3. Development of Information Technologies

Information technologies started to advance at the second half of the 20th century. The development of information technologies was accelerated with the launch of personal computers, medium size computers and financing capability for main computers, after 1975. AT&T and IBM faced with rivals including Microsoft and Apple. Besides, with the advancement of information technologies, the firms operating in the production, press and finance sectors started to have their own computer systems.

The first computer in Turkey was the one brought by the General Directorate of Roads in order to make the road calculations faster. This computer was named as IBM-650 Data Processing Machine and was used for 12 years. Another computer, which was operating with electricity and processing electronic data with its 30 tons of weight located in an area of 167 square meters, was provided from ENIAC 15 years later.

Such growth followed a parallel path towards the advancement of technology and sectorial growth in the world accordingly.

Table 1. TOP 500 Information Companies - TOP 10

1. Türk Telekom
2. Turkcell
3. Vodafone
4. Avea
5. KVK
6. Genpa
7. Indeks Bilgisayar
8. Hewlett-Packard
9. Teknosa
10. Digitürk

Source: Interpromedya, 29.06.2009. Bilişim 500 - Top 500 Information Company

At present, the annual market size of the Turkish Information Sector has reached around 26.3 billion USD. In the recent decade, it has been seen that the market size was increased by 223% with a rise from 8.7 billion USD to 26.3 billion USD. These figures and growth rates are exhibited in detail by categories in Table 2 below. The data for 10 years are reflected in this table.

Table 2. Information Sector in Numbers

	Market Size (in USD 000)				Change (%)		
	1998	2007	2008	2009*	2007/2008	*2008/2009	1998/2008
IT Hardware	1.614.820	3.456.676	3.685.378	2.950.000	6,6	-20	128,2
Software	248.955	1.260.356	1.491.701	1.600.000	18,4	7-3	499,2
Service	340.773	1.768.376	2.006.947	2.150.000	13,5	7,1	488,9
T. Materials	77.518	210.753	225.075	245.000	6,8	8,9	190,4
Information Technologies	2.282.066	6.696.161.	7.409.101	6.945.000	10,6	-6,3	224,7
Telekom							
Hardware	1.619.220	2.886.927	2.788.726	2.700.000	-3,4	-3,2	72,2
Carrier Services	4.794.292	16.209.361	17.908.087	16.700.000	10,5	-6,7	273,5
Communication Technologies	6.413.512	19.096.288	20.696.813	19.400.000	8,4	-6,3	222,7
TOTAL	8.695.578	25.792.449	28.105.914	26.345.000	9	-6,3	223,2

4. Structuring of Information Technologies in the Businesses

Information technologies have been structured under the decision support units of the firms such as administrative works or accounting. First of all, information technologies which were previously established as decision support systems and accounting information system were needed to be transformed and extended with the development and usage of technology in many areas.

When information technologies were applied at departmental level, they were initially divided into two parts as hardware and software. Later, this structure renamed as data processing and software development. This was repeated in each information technologies department by dividing the two units into similar subunits.

The advancement of information technologies continued its run without any interruption and the new functions added took their places in the new structure. With the application of the standards defined by COBIT as used in ITIL, ITSM and supervision as the navigator in structuring of information technologies, information technologies were started to be structured on functional basis.

4.1. Functions of Information Technologies

The usage of information technologies in businesses is considered as a cost component. Since information technologies are considered as cost component rather than an investment component, businesses face with the problem of failure to allocate the sufficient resources for information technologies departments. On the other hand, although it is expected that the costs will diminish as a result of the development of technology, it is observed that the existence, development and retaining of the required specialty skills brought about higher costs gradually.

Information technologies have not reached its mature state yet, despite the continuous and rapid growth. Therefore exclusive solutions for each business are required like a tailor-made suit instead of ready-wear suit. Although the components of the structure are known, the production of exclusive solutions for each business is more complicated. The management of this complex structure is unique for the structure; it brings devotion to persons and team, causes restrictions and increases risks.

5. Outsourcing Usage

The usage of outsourcing is observed in all areas of the business sphere in today's world. It is observed that outsourcing has become widespread and varied throughout the years since its first use. Variety in the usage of outsourcing may be seen as a result of the formation of different models and usage areas. At first, while outsourcing was used only in the functions carrying low risk, in our age, outsourcing is seen in all areas. As the reasons to this development, we may enumerate the evaluation of the opportunities occurred due to globalization and the minimization of the risks in these areas through legal contracts.

5.1. Definition of Outsourcing Usage Concept

Outsourcing may be defined as purchasing services from other firms. In this sense, the functions are delegated. Indeed, in more general view, there individuals using outsourcing as well. Individuals and businesses always are in need of the assistance of others due to their lack of skills or cost advantages. Related to this, it is seen that assistance or replacement applications to help the provision of goods and services have been used for hundreds of years.

5.2. Outsourcing Models

The usage of outsourcing was varied within the historical process and became separable by models. The outsourcing usage may be on the basis of single task, like erection of a product, or may be extended to a form in which many functions may be provided by a service provider.

Different terms are used for defining many outsourcing models, major ones of which are discussed below.

5.2.1. Facility Management

The management of data processing rooms or building complexes requires the utilization of specific information and competences. It is possible to define these areas as facilities. The establishment of special units and the needs in heating, cooling, ventilation, electric infrastructure and security of the facilities made outsourcing attractive and profitable in such areas. The meeting of the needs of thousands of people and machines require precise monitoring, updating and reporting of quite complex and sensitive processes.

5.2.2. Selective Outsourcing Usage

Outsourcing only for some part of the activities may be defined as selective outsourcing. In this way, the risk is reduced as well.

5.2.3. Tactical Outsourcing Usage

Tactical approach may be defined as application of outsourcing for short term in a fast and restricted scope. In this sense, the solution is sought through a relatively short term contract in order to solve a problem in the environment. Service is procured to solve this problem and it is insured to solve the problem in a very short period of time. The examples include the establishment of some group of servers, and the configuration of operating systems and software.

5.2.4. Strategic Outsourcing Usage

Strategic outsourcing defines the provision of an activity of a firm through outsourcing and long term collaboration between two parties based on mutual trust. In this type, the parties shall consider each other as strategic partners. Therefore success should be aimed cumulatively without being restricted only to the conditions of the contract. The return and working will be for a long term.

5.2.5. Co-sourcing Usage

Co-sourcing is the collection of the intellectual capital in a new firm to be established in collaboration instead of retaining the services of the outsourcing firm only. In this manner, the firm to be established shall be effective like internal sources and efficient like outsources.

5.2.6. Utility Based Relationship

In this model, the estimation and sharing of the utilities and risks are observed beforehand. In this type, the failure to obtain the benefits will affect the progress and the return of the relationship and this situation would affect both firms.

We may consider the utility based relationship bilaterally and see it as a “win-win” relationship.

5.2.7. Foreign Outsourcing Usage

Foreign outsourcing is provided in information technologies area specifically by the countries which adopt investing in technology as a state policy or in which the labor is gradually cheaper. However it is not limited to such areas and many opportunities are used in other areas as well such as call centers, owing to the spreading of globalization and communication. India, China, Ireland, and Israel have become prominent service providers in information technologies area. The reserves of these countries in software development bring about alternatives for major IT firms. For example, the firms including IBM, AT&T, Microsoft, and Oracle have software development centers in India.

5.3. Advantages of the Outsourcing Usage

Outsourcing brings many advantages to promote the decision making process of firms. These advantages will be in the form of material support or in the form of contribution to the operations of the functions. According to Greaver (1999) and Williams (1998), the advantages are various and in a wide range.

The advantages of outsourcing may be classified under mainly two groups as those providing material benefits and those contributing to the organizational structuring and development.

The firm sources formerly allocated in the area outsourced may be channeled to other areas which may be more important for the firm in terms of achieving more efficiency. The efficient use of the sources in this way shall positively affect the profitability of the firm.

The assignment of the facilities and devices to the outsourcing firm is a necessary application. In this application, with the conversion of fixed assets to current assets, the current ratio and cash ratios will be improved for the firm. In this way, the source will bring flexibility and opportunity for progress.

Fast growth rate is also provided with the transfer or use of information of the outsourcing firm. Although the work knowledge is at the possession of the firm, the technical information is at the possession of the outsourcing firm. This technical information reserve will be transferred or used as in the case of strategic outsourcing, bringing competitive advantage and promoting the rapid growth of the firm.

5.4. Disadvantages of the Outsourcing Usage

While deciding on the usage of outsourcing, the advantages and disadvantages should be carefully reviewed before making any decision thereon. There are significant issues which may cause losses to the firm in the short and long term.

Where very long term investment is required in an area in which outsourcing will be utilized, the investment costs will be reflected in the usage cost of the outsourcing by the outsourcing firm and any additional cost to occur due to becoming incapable to provide such services to other firms shall be incurred by the firm to use outsourcing. This fact increases the expenses although they are in the form of variable costs. The auditing costs and value added of the services should also be considered. Particularly, expenses increase considerably when a firm transfers and uses advanced technology. However, it is obvious that this would be based on the nature of the services to be outsourced.

Any decrease in the supply by the outsourcing firms would also cause threats with respect to the future of operations. The seasonal fluctuations in the demand for outsourcing would also cause quality issues of the services.

6. Findings and Comments on Strategic Outsourcing and Co-Sourcing in Information Technologies

In the study, strategic outsourcing and co-sourcing featured as the prevalent outsourcing methods have been compared and the advantages and disadvantages of both sourcing methods have been evaluated. The sample cases have been used to indicate in which circumstance they would be useful and the points requiring specific attention have been attempted to be defined.

6.1. Evaluation of Strategic Outsourcing and Co-sourcing Usage

In Table 3, outsourcing usage and supply in information technologies are analyzed according to the data obtained from the State Planning Organization (SPO). As it can be seen in the table, 73% of the demand is in the USA. The Western Europe in the EU is at the second rank with 19%. And this ratio declines to 5% in the third rank, Asia-Pacific losing the nature of being a strong market. When growth rates of the last five years are considered, Asia-Pacific ranks first with 35% growth rate.

Table 3. IT Outsourcing Usage by the Recipient Regions

	2004	2005	2006	2007	2008	2009	(in million dollars)
							ACGR (Annual Compounded Growth Rate) (%)
USA	7,509	9,151	11,041	12,436	13,638	14,684	14 th April
Canada	135	140	144	149	151	155	02 nd August
Western Europe	1,764	2,125	2,548	2,975	3,361	3,778	16 May
The Central and Eastern Europe	83	90	98	107	121	127	08 August
The Middle East and Africa	98	105	112	121	135	141	07 June
Asia-Pacific	214	305	434	608	777	990	35,9
Total	9,803	11,916	14,378	16,397	18,183	19,874	15 th February

6.2. Co-sourcing

As mentioned above, co-sourcing is not the retaining of the services of the outsourcing firm only but the collection of the intellectual capital in a new firm to be established in collaboration.

The transition to co-sourcing phase will be a convenient process for the acceptance and adoption of the information technologies infrastructure of the firm. In this manner, the measuring and auditing of the service quality shall be realized more conveniently. This transaction is to be configured within the firm to be established.

6.3. The Advantages and Disadvantages of Strategic Outsourcing and Co-sourcing Usage

Many organizations, including financial services industry, consider sales and marketing as the main area of operation. These organizations believe that these areas produce more utility and add value to the customer relations. Therefore the other activities such as processing, operation management and information technologies are considered as areas of secondary importance and outsourcing is used in such areas. The new trend in the USA shows that top 50 banks consider outsourcing in business flow.

7. Conclusion and Recommendations

The studies conducted in related fields, accentuated the importance of information technologies for companies. Information technologies should not be considered as an ordinary support function. With the effectiveness and flexibility brought by information technologies, the work processes are improved, efficiency increases and strategic targets are changed.

It is found in the works related to the effectiveness of outsourcing that although strategic outsourcing has its advantages, there are some disadvantages compared to co-sourcing, and there are fundamental differences between the two methods. Although the co-sourcing is a new concept, exclusive usage areas and advantages have caused it to grow rapidly.

In this study, the source usages in information technologies were reviewed and the prevalence of the usages of internal sources, strategic outsourcing and co-sourcing were analyzed. Then, the usages, markets of the strategic outsourcing and co-sourcing and the firms using such services and the service providers were studied.

As a result of the foregoing analysis, it was found that information technologies are an integration of functions and suitable for strategic outsourcing in some of their sub-functions. It was determined that information technologies are quite fit for usage of co-sourcing. It can be seen that these findings are directly related to the strategic targets of the firms and the state of the market.

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