Open Access Article

INTERNATIONAL OUTSOURCING AS A DETERMINANT OF FIRM'S COMPETITIVENESS

Nazira T. Azizova
Associate Professor, Department of Foreign Economic Activity and Tourism, Tashkent State University of Oriental Studies, Tashkent, Uzbekistan, nazira_azizova@tsuos.uz, Orcid 0009-0001-9242-522X;

Abdulaziz Erkaboev
Lecturer, Department of Foreign Economic Activity and Tourism, Tashkent State University of Oriental Studies, Tashkent, Uzbekistan, laziz09er@gmail.com, Orcid 0009-0003-6175-2839;

Sulkhiya S. Gazieva
PhD candidate, Department of Foreign Economic Activity and Tourism, Tashkent State University of Oriental Studies, Tashkent, Uzbekistan, sulxiya_gaziyeva@tsuos.uz, ORCID 0000-0001-9015-0771;

Gulchekhra S. Isamukhamedova
lecturer , Department of Foreign Economic Activity and Tourism, Tashkent State University of Oriental Studies, Tashkent, Uzbekistan, gulchewka@yahoo.com .

Abstract. This article discusses the importance of international outsourcing in increasing the competitiveness of the firm. In particular, the impact of international outsourcing on increasing competitiveness is analyzed through the relationship between outsourcing spending and gross capitalization indicators.

Key words: International outsourcing, competitiveness, international market, outsourcing spending

I. Introduction

First used by E.Kodak in 1989, the term "Outsourcing" referred to the practice of externalizing some secondary tasks of the heavy industry in the early 20th century. For example, General Motors assigned accounting work to EDS, and warehouse work to other companies. The technological factor of the ICT sector in the 1980s brought outsourcing to an international level. The emergence of operational systems caused outsourcing to move from heavy industry to light industry such as electronics. Modern international outsourcing objects are pharmaceuticals, IT, textiles, logistics, education and other fields. There are various approaches to the concept of outsourcing in practice. Summarizing the main definitions, it can be said, that outsourcing is the transfer of a task previously performed by a firm to an external supplier firm, on the basis of trust and contract, for a sufficiently long period of time. That is, in contrast to the usual contract suppliers, outsourcing should order not one-time, but continuous business processes, and the suppliers should be completely independent companies without being subsidiaries of the company.

Received: September 04, 2023 / Revised: September 30, 2023 / Accepted: October 18, 2023 / Published: November 30, 2023

About the authors：Nazira T. Azizova

Corresponding author- Email:

Competitiveness refers to the firm's position in the product market through factors such as price, quality, advertising, R&D, and service. Outsourcing is important because it provides the firm with its competitiveness through the above and other factors.

II. Literature review

The study of outsourcing, and in particular its impact on competitiveness, is studied through the "Make or Buy" (MOB) paradigm. Until now, several of MOB models have been developed, the main ones are Berta-Dobler-Starling model, Gardiner-Blackstone model, McKinsey/General Electrick matrix, Anikin-Rudoy model, Moiseeva model, Firsova model and others.[1]

III. Initial analysis

Intuitively, international outsourcing and competitiveness are relevant in at least two ways. First, the life cycle of goods is getting shorter, and to create a new model, it will be necessary to spend more on training personnel and new equipment. Second, the depreciation of fixed assets under the influence of the innovation diffusion factor also is taking higher rates.

After the domestic market is saturated, any firm will seek the international market. Due to the economies of scale, and if the product is unique at the initial stage, the firm will achieve high income, and ultimately, high profits. However, after some time, the same company which had been perfoming well in the international market faces new potential problems:

- the high profit of the company attracts international competitors to the industry;
- additional costs for product standardization;
-obstacles related to localization;
- financial, currency conversion and tax aspects;
- logistics and packaging;
- anti-dumping, tariff and quotas.

Since many imitators in the international market do not spend as much time and money on R&D as innovators, they reduce the competitiveness of the firm by producing alternatives at a lower cost. Moreover, the international market is not a place where all buyers and producers gather, but rather a composition of many regional and national markets with their own characteristics.

Since the 2010s, the purpose and form of outsourcing has been characterized in a new way. In traditional outsourcing, cost reduction was considered the leading factor. In recent times, while the importance of this factor has been preserved, new goals are emerging as a dominating factor. These include increasing the company's innovative capabilities, strengthening its position in the market, entering new markets, etc.

For example, if previously the main purpose of outsourcing call centers to India was to reduce costs due to relative salary differences, now the main objectives are to enter the local market, ensure continuity during the day, be closer to consumers, etc. As the salaries of call center operators in India are increasing, so are the quality of their services, which give them advantage to the local service providers which have the same residence with company's headquarters. It is also known, that US

[1] See the references

companies have outsourced call center services to European countries such as Great Britain and Ireland, where the average monthly salary is relatively high.

According to Deloitte Survey research, cost reduction was the top priority for companies in traditional outsourcing, accounting for 57% of the total factors, while technology and digitization improvements accounted for only 14%. In modern outsourcing and managed services, the primary driver is increasing pace of technology and digital transformation, which is 62%, while the goal of reducing costs fell to 33%.

IT outsourcing has increased after 2020 due to the impact of the Covid-19 pandemic. Firms that switched to remote services began to switch to various online platforms in order to maintain their market and ensure continuity of service.

IV. Setting variables

Now let's check the above formulation in a more explicit form. For this purpose, the statistical indicators specific to competitiveness and international outsourcing are compared and the interrelation between them is shown. It is desirable that the connection, which may be formulated as the following equation, be positive and as strong as possible:

$$Competitiveness = \beta \times Outsourcing + \varepsilon$$

where β – the response coefficient of competitiveness to the outsourcing;

ε – another factor that increase competitiveness.

Thus, we want to figure out such an identity where the value of β is at least greater than zero or if it is possible even greater than one. So, we are to set and test a hypothesis according our considerations.

Unfortunately, there is no clear unit of measurement that shows the competitiveness of certain firms and the extent to which they use outsourcing. Because outsourcing is still not established in accounting as a clear consensus. Moreover, any firm can be both an outsourcer and an outsourcing customer at the same time. For example, a mobile phone producer uses the services of software application providers while supplying other mobile hardware manufacturers with displays and cameras.

Nevertheless, by making some assumptions, we can use indicators that indirectly represent competitiveness and outsourcing. Competitiveness can be represented by variables such as the gross capitalization of firms, and outsourcing by the growth dynamics of the outsourcing market. We begin by examining the interrelationship between private capitalization and outsourced spending dynamics. Essentially, both should be mutually positive and properly proportional. Figure-1 shows the dynamics of the base growth rate of gross capitalization and spending on outsourcing between 2008 and 2021 compared to 2008.

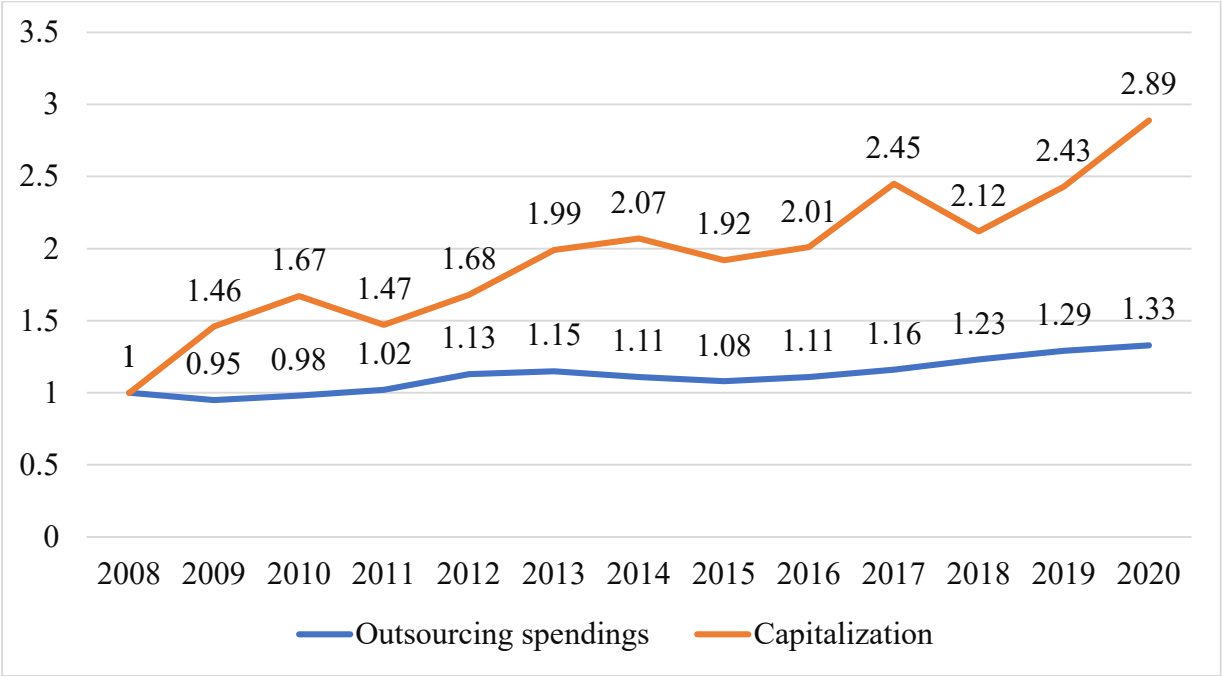

Figure-1. The dynamics of growth rate of outsourcing spendings[2] and market capitalization of world listed companies[3] between 2008 and 2021 years.

Observing both trends, we can see that gross capitalization is growing faster than outsourcing spending. From this, it can be concluded that if the capitalization increased due to outsourcing, then the return was stronger or there are other factors, which influence much stronger.

V. Testing the results

Let's check which one of the results is more consistent by connecting the regression between the two variables. For this purpose, we consider the annual growth rate of the outsourced expenditure as an independent and influencing factor of capitalization growth. Also, based on some considerations, we compare the influencing factor with a one-year lag. Using OLS method we obtain following regression equation:

$$\widehat{MarCap}_t = 0.2594 + 0.7923 * OS_{t-1} \qquad (1)$$

Where $MarCap_t$ hat indicates the estimated (sample) annual rate of change of market capitalization at time period t, OS_{t-1} – annual change in outsourcing spending in the previous period. The results of regression (1) are summarized in Table-1.

Table-1. Results of regression (1)

Coefficient name	Coefficient Value	Standard error	t-statistics	t-statistics probability
Constant	0,2594	0,8861768	0,292718	0,38819
Elasticity	0,7923	0,8636878	0,9173628	0,19144

[2] Source: Statista
[3] Source: World Bank

Variable	Mean	Standard deviation	Maximum	Minimum
MarCap (Market capitalization)	1,07122	0,12922	1,22082	0,86616
OS (outsourcing spending)	1,02455	0,04565	1,09898	0,94854
Main analytical indicators				
Correlation coefficient			0,2799	
R-squared			0,0783	
Standard error			0,130767	
F-statistics value			0,76422	
F-statistics probability			0,40473	

Table-1 suggests, that a 1% increase in outsourcing spending increases gross capitalization by approximately 0.79%, i.e. the elasticity capitalization growth with respect to outsourcing spending is 0,7921. So, the response is inelastic. This is inconsistent with the argument above that the return on outsourcing spending more as illustrated in Figure-1. So, there must be another stronger factor in capitalization growth. If the coefficient of determination (R-squared) of the regression is correctly estimated, then outsourcing provides only 7,83% of capitalization growth.

As we analyze the test results, we observe that the relation doesn't seem significant. The correlation coefficient is 0,2799. The value of t-statistics at 5% significance is 5,45. so, we can accept our hypothesis only at 20% (more precisely at 19,144%) level. Moreover, R-square also doesn't seem significant as F-test suggests.

Here it is worth noting that the initial period is 2008. It is known, that during this period the gross capitalization fell due to the financial crisis and a longer period is required to get a complete picture. Unfortunately, we do not know the previous statistics of outsourcing spending, and we have to start from this period. However, we can compare the shorter period in which the consequences of the crisis were eliminated, for instance, the data by Statista[4], where the outsourcing dynamics for 2013-2021 period is the same as previous, but the total capitalization dynamics is another sample, though very close to the previous one. To do this, we repeat the previous procedure comparing growth rates between 2013-2022 with a one-year lag, as before and we obtain the following regression:

$$\widehat{MarCap}_t = -0.4132 + 1.5077 * OS_{t-1} \qquad (2)$$

Where the variables are the same as in regression (1). The results of regression (2) is summarized in Table-2 and illustrated in Figure-2.

Table-2. Results of regression (2)

[4] https://www.statista.com/statistics/274490/global-value-of-share-holdings-since-2000

Coefficient name	Coefficient value	Standard error	t-statistics value	t-statistics probability
Konstanta	-0,413206	1,300145	-0,31781	0,38070
Elastiklik	1,50769	1,32908	1,13439	0,14995
Variable	**Mean**	**Standard deviation**	**Maximum**	**Minimum**
MarCap	1,08906	0,13204	1,25393	0,85395
OS	1,02168	0,03546	1,06659	0,96544
Analytical indicators				
Correlation coefficient			0,40493	
R-squared			0,163967	
Standard error			0,130404	
F-statistics value			1,17675	
F-statistics probability			0,319667	

This time, capitalization growth is more sensitive to outsourcing costs and the elasticity coefficient is about 1.5077, which means that a percentage change in outsourcing spending will increase the market capitalization by about 1.5077%. This is almost twice as high as the previous result, as Figure-2 suggests. That is, the regression (2) line is much steeper than the previous regression (2) line. It follows that in the short run the rate of return to outsourcing spending is much higher than in the long run.

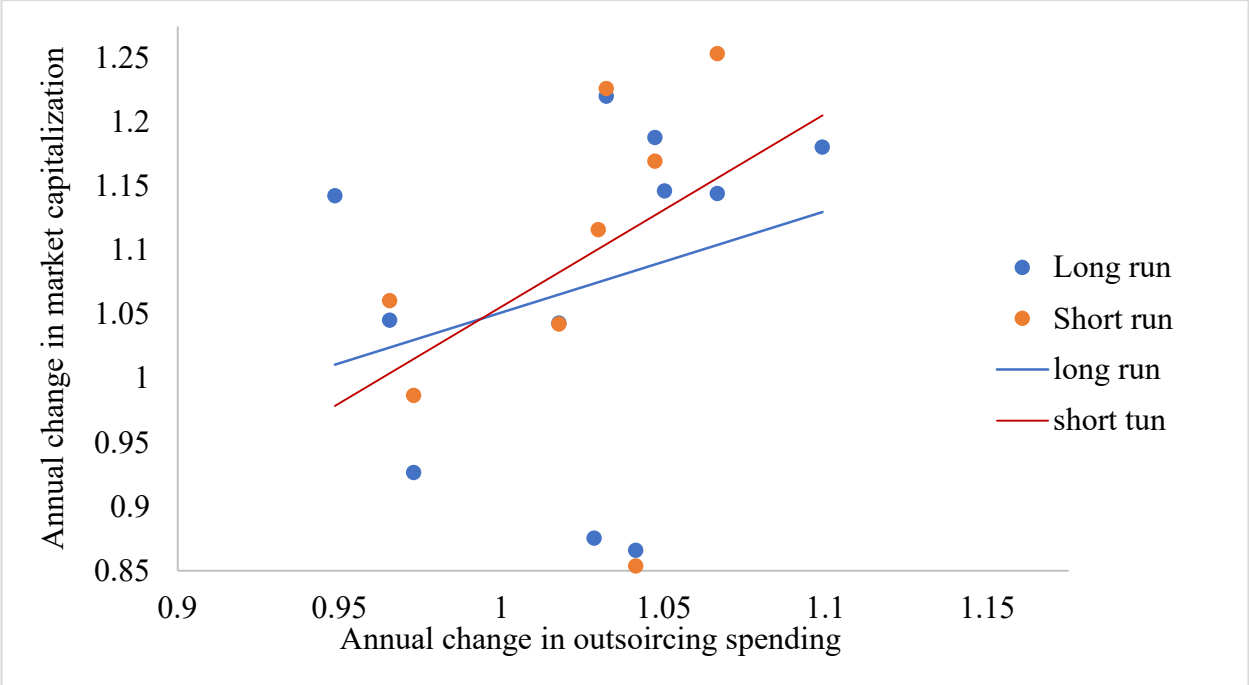

Figure-2. The OLS regression line as an estimator of capitalization growth rate with respect to outsourcing spending rate[5]

Again, the result doesn't seem significant in terms of t-statistics and F-test. This time the parameter standard errors are much more than previous one. However, the R-square is higher in value, explaining about 16,4% of the depended variable and the F-statistics is better making possibility of accepting R-square in about 67,5% confidant interval. Moreover, the correlation coefficient being 0,405 is much higher than in the previous OLS results.

On the other hand, if we had assumed, that β=1 in the first OLS and β=1,5 in the second OLS equations, other things equal, the t-statistics value would be as follows in the Table-3.

Table-3. t-statistics and their probabilities for β=1,0 and β=1,5 assumptions

Coefficient	Mean	Std.Error	t-statistics	Prob.(|t|<t-statistics)
0,79230	β=1,0	0,8637	-0,24046	0,18464
1,50769	β=1,5	1,32908	0,00579	0,00444

In that case, the estimated values of the response coefficients would be so close to the means, that we would have accepted them. Of course, this assumption only a case of infinitely many cases. The real problem is we have not much enough sample. However, we observed interrelation between these two variables, which should be modified further. At the same time, it is advisable to check other factors.

Outsourcing improves the efficiency of firms in the long run. For this, companies should be ready to take some risks. Artificial intelligence, Cloud, Robotics and automation, Web hosting, freelancing platforms are the most promising areas of IT outsourcing. Especially in the post-pandemic world economy, their relevance is becoming more evident.

VI. Conclusion

International outsourcing increases the competitiveness of the firm directly through its impact on individual factors and competitiveness-enhancing factors. That is, each outsourced business process will be of high quality because it is performed through a narrow range of specialized suppliers.

Measuring the level of outsourcing and the competitiveness of a firm is a complex process that can be evaluated through certain indicators that represent them. In particular, we tried to express competitiveness through gross capitalization and the level of outsourcing. As expected, the result shows a positive, particularly stronger correlation in the short term. However, the results of the analysis show that other factors have a stronger influence on capitalization growth. Also, due to the small sample size, it is only a matter of time before a more detailed result is obtained.

References

1. Burt D.N., Dobler D.W., Starling S.L. World Class Supply Management: The Key to Supply Chain Management/ 7th ed. — Boston: McGraw-Hill/Irwin, 2003

[5] By authors

2. Gardiner S.C., Blackstone J.H.Jr The 'Theory of Constraints' and the Make-or-Buy Decision / International Journal of Purchasing & Materials Management 27, № 3 (1991) — Pp.38-43
3. Полиенко М. Матрица GE/McKinsey//Marketopedia, 3.04.2009
4. Моисеева Н. К., Малютина О. Н., Москвина И. А. Аутсорсинг в развитии делового партнерства. — М.: Финансы и статистика, 2014 — 239с.
5. Cassidy G. Contacting out. – Kingston.: Ontario, 1994. – 644 p.
6. Deloitte. Global Outsourcing Survey 2016. – 16 p.
7. Deloitte. Global Shared Services and Outsoursing Survey 2021. – 27 p.;
8. Deloitte. Global Outsourcing Survey 2022. – 16 p.
9. Gardiner S.C., Blackstone J.H.Jr. The “Theory of Constraints” and the Make-or-Buy Decision // International Journal of Purchasing & Materials Management 27, № 3 (1991) – P.38-43.
10. Gene M. Grossman, Helpman E. Outsourcing in the Global Economy // Review of Economic Studies. – (2005) 72. – P.135-159.
11. Karmakar U. Will you Survive Service Revolution? // Harvard Business Review, 2004. – V.82. – № 6. – P.100-138.
12. Kadirova Z., Azizova N., Erkaboev A. Measuring Global Outsourcing and its Effect on Firms Productivity // Journal of Hunan University. – Vol.49, No,12. – December 2022. – P.1565-1573;
13. Monczka R.M. Purchasing and supply chain management. Fourth edition. – South-Western Cengage Learning, 2000. – 841 p.;
14. Sloan A.P. My years with General Motors. – Sidwick and Jackson, 1965. – 264 p.
15. Posner M.V. International Trade and Technical Change // Oxford Economic Papers, 1961. – P.323-341.
16. Sloan A.P. My years with General Motors. – NY.: Sidwick and Jackson, 1965. – 264 p.
17. Аникин Б.А., И.Л.Рудая, Аутсорсинг и Аутстаффинг: высокие технологии менеджмента. – М.: ИНФРА-М, 2009. – 327 с.
18. Стапран Д.А. Аутсорсинг: страхи и возможности // Росийское предпринимательство, 2016. – Т.17., № 12. – С. 1497-1504.
19. Хейвуд Дж.Б. В поисках конкурентных преимуществ: Пер.с.англ. – М.: Вильямс, 2002. – 242 с.
20. Фирсова Н.Н. Развитие методологии и теории предпринимательства в форме аутсорсинга: автореферат.дисс.канд.экон.наук: 08.00.05 / Н.Н.Фирсова; Рост.гос.экон.ун-т. «РИНХ». – Р.н.Д., 2013. – 25 с.
21. UNCTAD. Handbook of Statistics 2022. – Geneva, 2022. – 104 p.
22. The World Bank Data. Market Capitalization of Listed Domestic Companies | data.worldbank.org
23. World Trade Organization. World Trade Statistical Review 2022. – Geneva, 2022. – 131p.
24. www.statista.com
25. www.deloitte.com
26. www.gartner.com