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CONDITIONS OF OUTSOURCING IMPLEMENTATION IN E-BUSINESS

UWARUNKOWANIA IMPLEMENTACJI OUTSOURCINGU W E-BIZNESIE

Abstract: The article deals with an issue very closely related to contemporary management practice, namely e-business outsourcing. Currently, organizations, perhaps especially those running a business online, are not able to meet all the needs and requirements dictated by dynamically changing conditions on their own, and more and more often decide to cooperate with the network in order to ensure access to appropriate resources, including skills, knowledge, qualifications and technology. Outsourcing has become one of the most effective management tools – a cheap and effective way to share and use global resources. The paper attempts to demonstrate that outsourcing plays an important role in the functioning of e-business models, with a particular emphasis on e-commerce models. The aim of the article was also to indicate the most important benefits and threats related to cooperation with external IT service providers, to define the course of the outsourcing process and the requirements that should be met by companies that decide on such a model of operation, so that the cooperation could run smoothly and bring the expected results.

Keywords: management, e-business, e-commerce, outsourcing, IT outsourcing.

Streszczenie: Artykuł dotyczy zagadnienia bardzo mocno związanego ze współczesną praktyką zarządzania, a mianowicie outsourcingu w e-biznesie. Obecnie organizacje, również, a może szczególnie te prowadzące biznes w sieci nie są w stanie samodzielnie zaspokoić wszystkich potrzeb i wymagań dyktowanych przez dynamicznie zmieniające się warunki i coraz częściej decydują się na współpracę sieciową w celu zapewnienia sobie dostępu do odpowiednich zasobów, w tym umiejętności, wiedzy, kwalifikacji czy technologii. Outsourcing stał się jednym z najbardziej efektywnych narzędzi zarządzania – tanim i skutecznym sposobem udostępniania oraz wykorzystywania zasobów globalnych. W artykule podjęto próbę

wykazania, że outsourcing odgrywa istotną rolę w funkcjonowaniu modeli e-biznesu, ze szczególnym uwzględnieniem modeli handlu elektronicznego (e-commerce). Celem artykułu było ponadto wskazanie najważniejszych korzyści i zagrożeń związanych ze współpracą z zewnętrznymi dostawcami usług IT, określenie przebiegu procesu outsourcingu oraz wymagań, jakim powinny sprostać firmy decydujące się na taki model funkcjonowania, aby współpraca przebiegała bez zakłóceń i przynosiła oczekiwane efekty.

Słowa kluczowe: zarządzanie, e-biznes, e-commerce, outsourcing, IT outsourcing.

1. Introduction

The last two decades have been full of changes taking place both in the economic and social spheres. They are the result of rapid scientific and technical progress, especially the development of more and more perfect communication methods, an increase in computing power and computer memory. The emergence and development of the Internet has contributed to an increase in the interactivity and responsiveness of organizations. Businesses were forced to create a new framework for communication and cooperation with an ever larger and more complex group of stakeholders, whose main tool was the Internet. As Łobejko points out, data and information that in earlier times were transferred using material carriers, can now be placed on the network, and thus take the form of electronic storage in computer memories, and therefore virtualized. People get the opportunity to act in the virtual world as well as in the real one (Sobińska, 2015, p. 16).

The digital revolution in the last decade has had a very strong influence on business behaviour. In 2013, Deloitte, Allegro and PayU identified trends that have or will have the greatest impact on electronic commerce and the Internet economy around the world, including Poland, and which we are now observing. These are (*E-commerce w Polsce…*, n.d.):

Big Data, i.e. analysis of large databases, is gaining more and more importance in business, including trade. It is used, among other things, to research customer habits and the supply chain. According to experts, the analysis of large databases can be used not only by the big players, but is also the future for medium and small companies.

Mobile devices. In 2013, the share of smartphones and tablets in the global market of devices for connecting to the Internet was 65%, and is now about 70%. This increase means a decline in the number of laptops and personal computers. Most users report that they use several screens to connect to the network. This is important for trade, as the number of people who check product offers and prices on their tablets and smartphones is growing before making the decision to buy goods.

Cloud computing. As much as 70% global businesses use the 'cloud' in to some extent. The global market in this sector is growing and will be worth $ 241 billion in 2020. The main benefit of this solution is lower costs, companies pay only as much as the price of space they really use on the cloud.

Social Media are becoming more and more important in business. Already in 2013, 90% of the Fortune 500 companies were present in some form in social media. In Poland 86% of companies have a Facebook profile, and one-third of customers prefer this form of contact with the company, and not for example, a telephone, so it is important to give them the option. Experts emphasize, however, that social media can be used not only as an advertising channel, but also as a consumer service or interaction with the client.

User experience (UX), namely the entire experience of users after contacting the website. When it comes to e-commerce, payment and delivery issues are particularly important. Some companies have already realized that they cannot underestimate the experience of their users. Amazon earned 300 million dollars after improving its website in line with UX, and in Wells Fargo bank, after taking into account users' expectations, the number of submitted loan applications increased by 50%. According to research, 85% of UX problems can be solved after testing them on only five users.

Mobile payments. In 2012, 212 million people made payments via mobile devices. Most banks, mobile operators, sellers and independent payment operators decided that smartphones will shape the new business model in payments.

The Internet of Things, one of the pillars of the new technologies sector, consisting in the cooperation of devices with the Internet. In 2012 there were 8.7 billion of Internet devices in the world, in 2016 it was 10 billion, and four years later, estimated at 50 billion. Many things can be controlled via the Internet: cars, street lamps, home devices (intelligent building) or even medical sensors, which can send our results directly to a doctor. In 2012, $ 750 million was invested in 100 IoT companies. It is estimated that in 2020 its impact on the global economy would have amounted to $ 14 trillion.

Security. The digital revolution is unfortunately associated with cybercrime, which is dealt with by more and more professional groups. The employees themselves, who use mobile equipment both for private and business purposes, also pose a threat.

The development of technology makes the processes taking place in enterprises increasingly complicated, and enterprises are not always able to independently meet the requirements related to having, acquiring, securing and developing appropriate resources, including skills, knowledge and qualifications. More often, enterprises establish cooperation on the basis of various types of unions, alliances, joining network forms of cooperation (such as logistics networks or production networks). At the same time, various forms of sourcing are developing, through which work is contracted or delegated to an external or internal unit that can physically be located anywhere in the world. The localization of knowledge and key competences to the network is changing.

Prahalad and Krishnan note that an organization must be flexible (which may be manifested e.g. in the ability to select appropriate resources during operation) while maintaining high quality and the low cost of products and services. It becomes necessary to collaborate with other companies to provide a joint solution. This is the transition from ownership and control-based management models to privileged

access and impact-based models. The need for flexibility and the constant shifting of resources, as well as the management of the network significantly affects the complexity of business which can no longer be managed without a specialized system of technological architecture and related business processes. Another challenge – customer interfaces – means that companies should strive to create simple, intuitive interfaces to support dialogue with customers. The last of the noted challenges is scalability, namely a response to the need to cope with the increase in the number of organizations in the world, the variety of languages, customs and norms. The point is that an organization operating on the global market should offer different products/services tailored to the local expectations of customers in different places of the world at the same time (Prahalad & Krishnan, 2010, pp. 27-30).

2. Purpose of the study and research method

Currently, organizations increasingly refrain from gathering all the necessary resources and initiate the implementation of access programs to specialized global suppliers, and one of the cheap and effective methods of sharing/using resources is outsourcing (Sobińska, 2015, p. 20).

This article highlights the importance of outsourcing and the IT-outsourcing role in e-business.

The main goal of this article was to indicate a wide range of e-business areas, especially e-commerce, that can be outsourced and the most important benefits and threats related to cooperation with external suppliers. In addition, the course of the outsourcing process was described, as well as the requirements that must be met by companies that decide to use such a model of functioning, so that the cooperation proceeds smoothly and brings the expected results.

The article is based on the analysis of the literature, observation of the e-commerce market and the author's own experiences.

3. Theoretical overview and discussion

The paper introduces and discusses the issue of the possible use for outsourcing in e-business models with a particular emphasis on e-commerce and the factors that should be taken into consideration before the outsourcing decision is made and during the outsourcing cooperation.

Outsourcing in e-business and e-commerce

E-business is basically an online business. The concepts business models and e-business models in times of the network economy, according to the Gartner Group, are identical because in the Internet economy all business models are network models. E-business is a new source of efficiency, innovation and new ways of

creating value in organizations, which can complement a traditionally operating enterprise and/or a business venture carried out on the web.

The following types of relations between entities in the network can be distinguished (Sobińska, 2015, pp. 37-38):

- B2B (business-to-business) – "enterprise-to-enterprise", consisting in the implementation of business processes between the company and partners, intermediaries, suppliers, distributors and points of sale and service;
- B2C (business-to-customer or business-to-client) – the "company-to-customer" relationship, carrying out transactions between enterprises and consumers. The party initiating the transaction is the company, while the opposite is true in the C2B model, where the transactions are initiated by the client;
- C2C (consumer-to-consumer) – defining online zones of economic activity dealing with trade and the market economy from the point of view of private users. An example of this type of interaction is an Internet auction.

It should be remembered that the basis for changes or creating a business model/ models is mainly IT infrastructure. Therefore, IT systems and services can be treated on the one hand, as a necessary element of introducing business models implemented on the Internet, and on the other hand, the IT management model may itself become an innovative business model of an organization, conducive to increasing flexibility and creating value for stakeholders.

In this study, considerations were focused on indicating the place and role of outsourcing, including IT outsourcing in e-business, with a particular emphasis on e-commerce.

Business and e-business models, evolving along with technological advances, have become a response to the rapid changes in the market environment, while quickly adapting to subsequent changes. In e-business, information technology is a factor that activates and transforms the ways in which the services are offered to customers creatively, conveniently and effectively. The e-business model defines the way in which every company that uses the Internet in its operations wants to secure profit from its online activity. Such a model should define: the benefits offered to clients, the scope of the product offer, pricing policy, sources of income, related activities (functions), methods of model implementation, basic skills of the company and ways to protect the durability of the competitive advantage on the market (Szpringer, 2012, p. 47).

The new types of businesses that have emerged with the Internet age are Internet businesses and virtual businesses. An Internet company can be defined as a company that uses the Internet as a communication channel, while a virtual company as a dematerialized, flexible, agile enterprise, using momentary opportunities and the so-called key competences, based on information and knowledge, and therefore primarily on intangible assets – intellectual capital. A virtual enterprise is not only a company using the web, but a company that bases its business on: the network (e.g. search engines, browsers), content digitization (media) or the development of

various distribution channels, but at the same time performs many functions on the Internet (Cisco), and the Internet largely affects the company's strategy and structure (e-banks, e-stores, e-auctions) (Sobińska, 2015, p. 39).

Doligalski created a typology of business models of Internet companies operating on the market of individual recipients, within which he distinguished: online sellers, e-service providers, content providers, multilateral platforms and community animators (Doligalski, 2018c, p. 32). These entities, and especially online sellers (companies selling real products within their store or using e-commerce platforms) are a very good example of using outsourcing. According to the study, online sales are characterized by low entry barriers understood as the total costs necessary to start a business, as there are many solutions such as ready-to-use online stores, where one only needs to place product descriptions and other required content. However, the ease of entering the sector results in high competitive pressure.

The Polish e-commerce market was worth PLN 35 billion at the end of 2016 (*Segment e-commerce w Polsce…*, 2018). The value of the Polish e-commerce market in 2018 was estimated at PLN 45-40 billion, which represents approximately 5% of retail sales (Doligalski, 2018a). The dynamic development of e-commerce is influenced not only by global trends and technological progress, but above all by the effectiveness of its sales channel. Companies from the e-commerce sector put first in order of importance the access to operating systems that will allow them to develop sales on a global scale with the support of technology. The key problem of e-commerce is an efficient payment and billing infrastructure adequate to the profile of the conducted activity and geographical range. As the number of countries in which the company operates increases, so does the complexity of operational issues. A company that wants to acquire customers in a specific market must support the payment methods that are most popular there.

E-business and e-commerce is an activity that focuses on the computer and the Internet, where the main attention of the entrepreneur should be on providing the customer with the quality of the final product in line with the customer's order and at a competitive price.

Research shows that the price of the product and the low cost of delivery are considered to be the most important factors to buyers. Stores point to price wars as the biggest problem in running online activity (E-commerce Standard 2017 and 2018). Bisnode's research shows that 56% of online stores are in poor or bad financial condition. The Credit Information Bureau, however, reports that over 10% of online stores have problems with solvency, and this percentage is growing rapidly (Doligalski, 2018a).

Therefore, it seems that this is an industry for which the tool for reducing costs and increasing the flexibility of operations, defined as outsourcing, still has enormous possibilities and potential. However, it is important to optimally use the opportunities that exist in the external services market, and this requires a thorough,

systematic analysis of the needs, and constant monitoring of cooperation with service providers in order to react quickly to changes in the environment.

Outsourcing means delegating services to an external company which takes care of part or all of a selected area of activity in order to reduce costs and / or improve the quality of services and increase the profitability of projects. Among those most suitable for the separation of e-business areas are (Smużniak, 2016, pp. 624-626):

- accounting,
- HR and payroll,
- transport (especially when not dealing with very specific products requiring non-standard transport conditions),
- IT services (e.g. SaaS services – one of the models of cloud computing/cloud computing),
- marketing,
- logistics,
- employment – using the services of a temporary employment agency offering hourly-paid employees,
- services for introducing products to the online store,
- services related to posting offers on Allegro and other offer websites,
- website positioning services,
- graphic support/taking product photos,
- creating and managing the regulations of sales websites and the privacy policy.

One of the first outsourcing functions was logistics, which for years has also been one of the key areas of outsourcing in e-commerce.

E-commerce shipments require a reliable distribution infrastructure to support the online business. Thus, with the continued development of e-commerce, the importance of logistics capabilities does not diminish and logistics outsourcing continues to expand.

In recent times, particular attention has been paid to data security issues, because the regulation on the protection of personal data has been in force since May 2018 (RODO, GDRP). This resulted in the need for many new activities by companies and institutions. The most problematic consequences for running an online store include: the need to obtain multiple consent for data processing for various purposes, the need to maintain extensive documentation and a record of processing activities, and the fear of high penalties for violating regulations (E-commerce Standard 2018). This regulation also covers entities from outside the European Union providing services on its territory (Doligalski, 2018a).

In the context of meeting these very detailed requirements, one should also external companies that specialize in outsourcing the functions of personal data protection, i.e. ensuring the security of the organization and monitoring the risk related to the obligations of the personal data administrator.

The outsourcing services market offers many opportunities, but it should be remembered that before making a final decision on cooperation with external supplier/

service providers, it is worth observing the market for some time, comparing the available options and negotiating contracts in order to develop the most favourable contract in the given operating conditions.

One of the forms of cooperation worth considering may be the concept of One Stop E-commerce, i.e. the model of outsourcing services, assuming the implementation of certain processes using external resources. IT, logistic, financial and accounting issues are taken over by experienced professionals who, due to their specialization in specific industries and areas, offer the highest quality of services. In other words, in such a model of cooperation, the client (e.g. a professional e-shop) entrusts one partner with the handling of logistic and IT operations as well as customer service.

The outsourcing of e-commerce services can be a good solution both for entities that start their activity in e-business and for those who already operate in the industry. Start-ups minimize investment expenditure through outsourcing and thus are able to overcome the barrier to the entry into this demanding market. Outsourcing may also allow e-stores that already exist on the market to approach a higher level of development by implementing more advanced process mechanisms (obviously, with a properly prepared contract). Outsourcing also ensures full predictability of costs and usually gives the possibility of an easy, low-cost exit from the business if necessary. The guarantee of the proper performance of services is regulated by the relevant SLA (Service Level Agreement), which ensures the security of reliable performance of services (*One Stop E-commerce…*, 2018).

The main benefit of the One Stop E-commerce model for companies in the e-commerce sector is the focus on their core business.

The next section focused on aspects that should be taken into account in the outsourcing decision-making process.

Benefits and risks of outsourcing cooperation in e-business
Among the most important potential benefits of outsourcing can be mentioned:
• reduction of costs related to the search and maintenance of qualified personnel,
• reduction of fixed costs in favour of settlements for a specific effect – conversion of fixed costs to variable costs,
• time savings and the ability to focus on key activities ensuring profit maximization,
• access to specialist knowledge and high competences of the staff of out-sourcing companies, which thanks to their experience are able to offer high-quality services at a lower price than in the case of providing services on their own,
• access to solutions that would not be available otherwise,
• reduction of IT costs in the case of cooperation with an IT service provider,
• sharing the risk/benefits with the supplier,
• access to managerial and technical experience/knowledge,
• standardization and coordination of processes (enforced by an outsourcing agreement),

- introducing competition between suppliers, and, as a result, higher quality of services (in the case of well-defined multisource cooperation).

The two basic principles of decision analysis in relation to outsourcing can be formulated as follows:

- A project is difficult to justify if it lacks specific, measurable goals and consistent, reliable information on the real costs and benefits of the project.
- The benefits obtained are as important as the costs. Even if one of the options turns out to be more expensive, it may still be a more effective choice for meeting the needs of the organization.

The value of the relationship with an outsourcing partner is measured differently when dealing with a selective, well-defined service which, thanks to such a contract, should be cost-optimized, and differently again in the case of strategic outsourcing, which is by definition strongly integrated with the client's business. The real value of an outsourcing service varies over time and is influenced by many factors related primarily to the outlays that the company has to incur to prepare for the separation of the support or process service, and then possibly also to rebuilding internal competences after the outsourcing contract expires. The costs are usually greatest at the beginning and end of the contract. They result from the need to adapt the enterprise to cooperation with an external company and to educate the company of managers specializing in service management. During the term of the contract, costs related to introducing changes are incurred, which are difficult to predict at the stage of constructing the contract (Sobińska, 2015, pp. 114-115).

Outsourcing is not only about the benefits. Table 1 presents a set of selected risk areas of network projects, significant from the point of view of implementing a network business model.

Table 1. The risk types of an enterprise operating in the network

Operational	Technical	Management	Legal	Client
1	2	3	4	5
Training	Security costs	Determining the essence of activity	Copyright	Understanding the market
Recruitment of qualified staff	Access to information	Integration of business and marketing plans	Advertising standards	Mark/brand
Readable website	Client/server dependency	Identification of the sources of cost savings and increased efficiency	Intellectual Property Rights	Maintenance services
Approach to Effects	Electronic transaction documentation	Increase in the scope of customer service	Different Seller/ Buyer Jurisdictions	Integration of business processes
	Process automation	Benchmarking	Taxes	Transactions

1	2	3	4	5
	Continuity of system testing	Investments in new technologies	Privacy	Payment system
	Data Loss Prevention	Improving distribution	Supervision regulations	Complaints/ procedures
		Building relationships with partners	Domain registration	Searching for the market
		Evolution of e-business	Contractual issues	Changes in demand conditions

Source: (Duczkowska-Piasecka, Poniatowska-Jaksch, & Duczkowska-Małysz, 2013, p. 231).

Running a business in the network is associated with high risk, therefore an important element of the decision-making analysis carried out by an organization should be to determine whether it wants to take such a risk, and if so, to what extent it wants to cooperate with external service providers.

In the next section, the model of the IT outsourcing process was described, as the IT area, even though it is crucial for many businesses nowadays, is also one of the most willingly handed-over to external entities. It should be emphasized once again that the motives of such decisions do not have to be the reduction of the operating costs of IT departments, but more and more often simply the need to use external competences in order, for example, to accelerate the introduction of innovative solutions/processes/services that support or enable access to the latest technologies and specialized knowledge difficult to provide only with the use of internal resources.

IT outsourcing process
There are many, more or less detailed analyses of the outsourcing process in the literature. Several stages can be distinguished (Sobińska, 2015, pp. 150-151):
- defining the goals/needs of the organization,
- analysis of the needs, benefits and risks of the selected outsourcing model,
- preparation of RFP (Request for Proposal),
- selecting an IT service provider,
- negotiating the terms of the contract/agreement,
- implementation/performance of outsourcing services,
- relationship management and contract/agreement progress monitoring,
- efficiency assessment.

The impulse to start the outsourcing process should be the determination of the business need justifying taking the risk and incurring expenses for such a venture.

The first highlighted stage, i.e. defining the goals of the organization (sometimes also called strategic evaluation) consists in formulating the business goals of the organization and the ways of achieving them in the context of using various sourcing models (various models of service provision, such as insourcing, outsourcing, off-

shoring). The organization should analyse its strengths and weaknesses, define key competences and on this basis indicate functions/services that can be separated.

Then, after appointing a team dealing with the sourcing project, a detailed analysis of the requirements, benefits and risks related to the implementation of each of the considered sourcing models should be carried out. If it turns out that a function/process /service is worth outsourcing to an external company, in the next step one should define the requirements for the allocated area, and in the form of RFI (Request for Information) i.e. requests for providing the required information or RFP (Request for Proposal), send invitations to submit an offer/request for a quotation to a potential supplier/s. After receiving the answer, there are usually interviews with candidates, their evaluation and selection of offers that best meet the client's needs. At this point, the company usually decides whether it chooses to cooperate with one or several suppliers. Outsourcing services to only one supplier (an example may be the previously mentioned One Stop E-commerce concept) is easier from the management point of view. However, its main disadvantage is the possibility of a strong dependence on the supplier/s, and thus the necessity to agree to the conditions set by them. In many cases, the exit barrier (costs of starting cooperation with a new supplier) from such a system is so high that the organization prefers to remain in an unfavourable relationship. The choice of the option with one supplier is appropriate in a situation where the area considered for separation is too narrow to be divided into several suppliers, or too difficult to divide. On the other hand, using the support of several equal entities allows for the construction of the service based on the best suppliers available on the market and introduces competition conducive to increasing the quality of services and creating innovative solutions. The disadvantage of this solution is the greater complexity of managing this type of outsourcing system, which means that, among others, there appears an issue of the smooth division of responsibilities when problems arise (Sobińska, 2015, p. 71).

The next, one could say, critical stage of the outsourcing process is negotiating the terms and formulating the outsourcing agreement. The team appointed for this task should foresee and include in the contract as many possible scenarios of the course of cooperation as possible and describe the procedures that should be launched after the occurrence of any of the foreseen difficulties. In this way, one can try to significantly limit the negative consequences of problem situations, which is in line with the principle of limited trust that should be applied by companies, especially during the economic crisis.

The implementation phase is a confrontation of the assumptions made in the initial stages of the process with the reality in which control over the assigned area is gradually transferred to an external supplier. In practice, this phase coincides with the phase of relationship management and monitoring the course of cooperation. Monitoring includes the examination of compliance of the IT services undertaken and implemented by the IT service provider with the procedures/standards specified in the contract (most often the details of specific services are included in the SLA-

Service Level Agreements). From time to time the organization should evaluate the effectiveness and strategic evaluation of the outsourcing cooperation. It is then worth revising the provisions of the existing contract, referring them to the current situation and the needs of the organization and the changing environmental conditions, and in justified cases, terminate it or at least change some of the provisions. Each implementation of changes in the contract means a return to the first phase of the outsourcing cycle.

Experience shows that one of the fundamental problems in outsourcing projects is the improper management of relations with external suppliers. After signing the contracts, nearly half of the companies do not implement the management structures specified in them. Therefore, it is worth remembering that managing an outsourcing relationship requires not only managerial skills, but also defining the methods and processes that facilitate cooperation, as well as defining roles and division of responsibilities between the cooperating entities.

4. Conclusion

Each company should precisely define its needs regarding the digital business model and define the tools that will be able to meet its expectations in the best way, taking into account various factors (financial, organizational, technological, etc.). Outsourcing seems to be a good solution for companies that care about a high market position and building a competitive advantage by minimizing costs and increasing flexibility.

The article indicates selected areas of e-commerce, such as IT, in which outsourcing is or may be applicable, as well as the factors and rules of conducting an outsourcing process/contract that may contribute to the success of the cooperation with external service providers.

Undoubtedly, the e-commerce market will continue to grow, as it has many undeniable advantages over traditional commerce, such as: 24/7 availability, no need to physically visit the store (shortening the time of shopping) and unlimited selection time. These features gained particular importance in 2020, in the era of the ongoing COVID-19 pandemic and the resulting various restrictions and guidelines, including the temporary lack of opportunities and the emerging difficulties in making purchases in stationary stores or using catering services. Many companies wanting to stay on the market, including shops and catering outlets/restaurants, were forced to change the existing business models to those that better correspond to the current situation and are able to attract and/or retain customers.

For this reason, among others, it is extremely important and will be for the existing and newly emerging entities on the e-commerce market, to navigate the network of service providers that ensure safe and flexible functioning of online stores, and to create such models of network cooperation/innovative business models, which, as

a result, will contribute to the optimization of the sales process and an increase in end-customer satisfaction.

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