Public service digitalization:
Is it a new way for servitizing public services?

László Buics (buics.laszlo@sze.hu)
Széchenyi István University, Győr, Hungary

Abstract

This work-in-progress paper is to examine how servitization and digitalization are connected and how they can be used for public service development. This paper as a first phase gives an exploratory review of related articles and examines how digitalization and new technologies can change public services and how governments can use these solutions for the servitization of public. In the next phase a comparative case study analysis will be done to compare public service digitalization strategies and approaches of Finland, Hungary and Slovakia with a focus on identifying good practices which can be transcribed and applied to the Hungarian system.

Keywords: servitization, digitalization, public services

Introduction

The purpose of this paper is to examine how the long existing phenomenon of servitization (Vandermerwe, Rada, 1988) could be applied on the field of public administration and how it could be used for public service development. While the concept of servitization is well-known in manufacturing contexts, it has not or rarely been used in public services. The paper gives an overview of current research trends while examining how governments can use these solutions for the servitization of public services.

In the age of ever increasing stakeholder expectations, developing new and improving on existing public services is a challenge for every government (Lathrop et al, 2010; Ringold et al, 2013; O'Toole, 2015). These expectations in the globalized and rapidly digitalizing world are pushing governments to find new ways to meet the needs of their citizens at the same or higher levels of efficiency than before (Casalino et al., 2013).

Because of this public administration as a profession is facing increasing stakeholder expectations. (Lathrop et al, 2010; Ringold et al, 2013; O'Toole Jr., Kenneth, 2015) The citizens of a state can be considered as customers, but customer satisfaction is a complex concept which is difficult to define properly. (Stoker, 2006; Meynhardt, 2009)

This paper is the first phase of a longer research, trying to identify the possibilities and restrictions of the application of servitization solutions on the public field. There are similarities between a private organization and a public service provider as they both aim to improve customer satisfaction, efficiency and effectiveness, but they also differ from each other in many ways. Hence the question is whether digital servitization

approaches – which come from the private manufacturing field – can be applied the same way on a public service provider as a private organization, or not.

The second phase will show the results of a comparison of the digitalization strategies, levels and approaches of three European Union member countries: Finland, Hungary and Slovakia with a focus on identifying good practices which can be transcribed and applied to the Hungarian system in order to highlight how the Hungarian administration system could be developed further.

Servitization

Servitization can be defined as the innovation of an organization's capabilities and processes to better create mutual value through a shift from simple selling to an integrated product and service offering that delivers value in use. (Vandermerwe, Rada, 1988; Neely, 2008; Neely et al., 2011) There are similarities between private organizations and public service providers as they both aim to improve customer satisfaction, efficiency and effectiveness, but they also differ from each other in many ways.

Servitization is now refers to the process of creating value by providing additional services to products (Vandermerwe, Rada, 1988). Since the first appearance this term was studied from several angles by scholars to uncover the different kind of methods and implications of service-led competitive strategies for manufacturers (Wise, Baumgartner, 1999; Oliva, Kallenberg, 2003; Slack, 2005).

In the last three decades servitization has been a popular strategy in the manufacturing sector and according to the relevant literature in the manufacturing industry an increasing number of companies are complementing their products with value-added services (Vandermerwe, Rada, 1988; Wise, Baumgartner, 1999; Fang, Palmatier, Steenkamp, 2008; Baines, Lightfoot, 2009) and scholars have shown also a steady interest in understanding how firms create value by adding services to products (Cusumano et al., 2015)

According to the literature servitization is usually a subscription model and can be applied to most industries in one way or another. It developed out of the necessity for businesses to remain profitable and competitive in an age where the financial aspects of design and manufacturing are becoming increasingly challenged by emerging markets and as we can see the concept of servitization is in strong connection with value delivery.

Public administration

The term servitization comes from manufacturing, from private business life which is far away from the field of public administration but as it was proved in many previous cases the advancements of private business management can be useful for developing new public service solutions like the concept of New Public management which tries to give space to new ideas within the field of public administration while also highlights the importance of the citizens' real needs. (Barberis, 1988; Kettl, 1995; O'Toole, 1997; Kaboolian, 1998; Terry, 1999; Lindquist, Paquet, 2000; Stark, 2002; Hood, Peters, 2004) But of course the effectiveness of these solutions can be different and there were also examples for making things worse than before. (Osbore, Gaebler, 1992; Mintzberg, 1996)

Traditionally governments never thought about citizens as customers and because of this the way how public services were executed excluded the citizens as potential feedback resources. But in the last decades of the 20th century as our technology and society developed governments realized the necessity to develop new ways and methods

of the services to maintain efficiency and serve the changing needs of citizens in order to secure public satisfaction. Amongst the many modern public administration approaches we can speak about the New Public Management, the New Public Governance (O'Toole, 1997; Lindquist, Paquet, 2000; Stark, 2002; Hood, Peters, 2004) and also about the several interpretations of E-Government and E-Governance. (Dunleavy et al, 2006; Jeong, 2007; Jun, Weare, 2011)

Nowadays citizens are connected like never before and have the skill sets and passion to solve problems, and are used to give feedback on the goods and services they receive, and to play an active role in making choices. With such an approach and high expectations from people the old school bureaucratic processes and the lack of fast and efficient solutions often turn people against the government leaving permanent bad impressions. (Richwine, 2012)

Servitizing public services
Servitizing public services seem to be a noble but also a tricky challenge. There are several significant differences between private and public service providers in many aspects including for example the lack of competitors. But in essence the ultimate goals of the governments and the private companies are basically the same. They both want to spare money while increasing efficiency and effectiveness and satisfy their customers. Despite there are other reasons behind it but public satisfaction is important for the government as much as for the companies. But in order to satisfy the customers we have to know what they think about our existing products and services in order to shape them further and to create new and even better products and services.

According to Hockerts and Waver (2002) we can differentiate three main forms of Product-Service-Systems. The first one is the product oriented and in this case the customer gets the ownership of the product while the manufacturer provides additional services which are directly related to the product. The second one is the use oriented where the service provider retains the ownership of the product and uses a modified distribution and payment system like sharing or pooling to sell the functions of the product. The third one is the result oriented in which case the provider replaces services for products. (Hockerts, Weaver, 2002)

Neely (2009, 2012) extends this list with two additional categories in order to be able to include the total scale of servitization applications and results. (Neely, 2009, 2012)

The two new categories are the integration oriented Product-Service-Systems and the service oriented Product-Service-Systems. In case of the integration oriented systems companies are conducting a vertical integration while adding services at the downstream of their value chain. In case of the service oriented systems companies are providing new services for their products in a way that they are integrating those services into their products themselves. (Neely, 2009, 2012)

According to Neely (2012, 2013) there are four main category of reasons behind the application of this phenomenon: (Neely, 2012, 2013)

- Economical
- Strategic
- Environmental
- Technological

The first three main categories are usually considered as more or less responsible for applying the concept of servitization by companies, but there is one more category which accelerates the shift more and more and can be considered as a major driver of servitization. This category is the category of technological reasons. (Neely, 2012, 2013)

At one point technology was only considered as an enabler of servitization approaches but with the tremendous amount of new innovations introduced in the last three decades the world is now one big pool of infinite data which can be collected and analyzed many ways in order to gain valuable information about customer demands and trends so the potential for new and innovative services grows year by year.

According to Lightfoot and other researchers technology will enable a higher level of service delivery and future products and services can be tailored to the customer's individual product needs thanks to the upcoming age of The Internet of Things (IoT) which will greatly accelerate the servitization in the future because it will turn the physical world into a digital information centre. (Baines, Lightfoot, 2013)

"The technology – and particularly the ability to capture and analyze "big data" open up some new opportunities for service innovation." (Neely, 2013; p. 3)

While the governments are trying to meet the growing expectations of the citizens, the relations between the citizen and the public institution become more and more complex and they have mutual influence on each other. In my opinion it seems to be clear that in the 21th century the role and necessity of information technology solutions is increasing in the public sector, and its activity is growing. There are numerous IT tools which can be transferred to the public sector to increase both customer satisfaction both efficiency and effectiveness.

As we can see in manufacturing there are economical, strategic, environmental and technological reasons of why the companies choose to servitize. These same reasons can be found on the governmental side as well. Digitalization and new technological solutions are already present in most public administrations systems on different levels as we are stepping into the age of E-Government and E-Governance (Jeong, 2007). While as we can see private companies and public organizations are different in many terms but fundamentally they both aim to create more effective and efficient solutions which are not just economically acceptable but also satisfy the needs of the customers. In other words governments started to try to servitize public services. The literature clearly shows that servitization is much more than simply the creation of additional services. It is also the changing of the way how we see products and services themselves.

But because of the differences the same approaches cannot lead to acceptable solutions when we try to implement private business solutions so governments have to be very careful. Unified Services Theory can be a good approach to help future public managers to think differently. By seeing these services as processes maybe we can discover previously hidden options which allows us to create better solutions.

Conclusion

While digitalization is not the only way of servitizing government services, the technological developments, in themselves, can make significant impacts (Sabbagh et al., 2012) on service operations and processes which makes digitalization a promising venue to persuade. Trends in the private sector can provide good examples of innovation in terms of servitization approaches which are using digitalization methods to increase efficiency and effectiveness (Dinges et al., 2015), and these innovative ideas could be useful in the public sector as well.

Researchers who studied servitization in private businesses generally agree that the technological advancements can lead to new ways of servitizing solutions because the customers create more and more data which can be analyzed and used not just as a feedback but also as a resource to predict future needs. In the very same way governments could use the feedback of the citizens too to create better services and to

predict future needs better which could lead for example less queuing and faster operations in case of administrative services.

In the last decades as our technology and society rapidly developed governments realized the necessity to develop new ways and methods of the services to maintain efficiency and serve the changing needs of citizens in order to secure public satisfaction. While because of the differences between the fields servitization approaches cannot be applied the exact same way, but in case of public services just as in case of manufacturing the core goals are the same.

From the author's point of view public service digitalization and emerging E-government solutions can play the role of enablers and accelerators of the servitization of public service systems the same way as they played this role in case of the private businesses in the previous decades. But because of the general differences between private organizations and public service providers, new solution implementations should be done carefully.

Acknowledgement

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