Government organizations operate a variety of channels to interact with citizens and businesses. Advances in information and communication technology have enabled an online presence and more direct interactions. A focus on efficiency makes organizations encourage the use of electronic channels over traditional channels. Also, intermediaries in the service delivery chain are cut out in favour of direct interactions. This strategy of disintermediation finds its rationale in the transaction costs theory.

In this paper we investigate dis- and re-intermediation strategies in the multi-channel management (MCM) structures of government organizations and find that disintermediation is not always the best option. Intermediaries – public or private – can be employed to improve customer-oriented service delivery. A primary focus on direct interaction neglects the potential added value of intermediaries. Both disintermediation and re-intermediation should be part of a conscious MCM service strategy.

We present a case in which both dis- and re-intermediation are part of the MCM service strategy. A major Dutch organization took a radical approach to increase efficiency and improve the quality of its services. The organization redesigned the business network and reconfigured its service channels. Our analysis concludes that the disintermediation of low-performing channels, while re-intermediation in others, can contribute to both an increased efficiency and a better customer-oriented service delivery.

“...The discussion on disintermediation and re-intermediation in multi channel service delivery becomes important as both directions seem to have their merits.”
1 Introduction

Governments are seeking ways to improve their service provisioning by means of Information and Communication Technology (ICT). Many governments started to offer services online, first only informational and later also transactional (Layne & Lee, 2001). This online presence coexists with traditional channels, like telephone, mail and front-desks. To offer all services in all channels, governments need to consider the different characteristics of the various options and deploy a Multi-Channel Management (MCM) to operate service delivery. Government organizations can pursue a variety of strategies in this area, which may vary from promoting the use of the most efficient channel to ensuring equal and fair access to all of them (e.g. the creation of channels for disabled or socially excluded groups).

To assess the use and possibilities of MCM in government service delivery, it is important to know the users’ (i.e. citizens and businesses) perspective on multi-channel service delivery as well as in the organizational and technical perspectives. This paper deals with strategies of government organizations and the consequent coordination choices that are required to implement those strategies. While most research focuses on the current and future use of traditional (i.e. telephone, mail and desks) and electronic channels (e.g. websites), we have looked into innovative channel strategies that can be pursued in a network of organizations. The use of innovative channels structures can improve service delivery and enable access for citizens in formerly out-of-reach segments. Possible strategies include more direct interactions with clients, but also the use of other organizations in the channel structure. The latter strategy is called intermediation, in which intermediary organizations (e.g. the front desks of municipalities) become a channel of sorts that is used by other government agencies to provide their services.

An online presence with transaction features makes it easier to connect to clients directly without costly interactions through front desks or other expensive channels. As part of this argument to reduce costs, the intermediaries that are part of the channel structure might be cut out as part of a strategy of disintermediation and the Internet becomes the preferred channel, with information and transactions offered through a website. The argument for disintermediation is often found in the lowering of the transaction costs (Malone, Yates, & Benjamin, 1987), which appear due to friction in the interaction among parties. ICT lowers the transaction costs by enabling direct interactions. With many (government) organizations having a focus on efficiency the Internet is often seen as the preferred channel, since it promotes connecting with clients directly (i.e. without intermediaries), thus the disintermediation of service channels.

This paper maintains that the use of intermediaries (i.e. the re-intermediation of the channel structure) needs to be considered as part of a conscious multi channel strategy, as intermediaries can help governments to improve service delivery. To improve service delivery and enhance service-orientation, related services could be offered in an integrated package. For services of a single organization, this might seem relatively easy. However, many complex government services involve multiple departments or organizations. Creating integrated service delivery that cross multiple (public) organizations’ boundaries is more complicated and may require the reengineering of business processes and the introduction of new roles and responsibilities for orchestrating these interactions (e.g. Janssen, Gortmaker, & Wagenaar, 2006).

When we shift to a client’s perspective, the required service may also transcend the public sector altogether and include private organizations. For example, when buying a car, the primary organization a citizen deals with is the car dealer. If such an organization can also handle the necessary paperwork with the government (i.e. register a change in car ownership), it functions as a private sector intermediary in a public organization’s channel structure. For the government agency, the use of such a private sector intermediary can be part of an innovative strategy aimed at increasing service-orientation by using actors in the existing channel structure, instead of focusing on direct interaction. The use of other organizations as part of the channel structure between citizens and government is the introduction of (new) intermediaries. The disintermediation argument, which eliminates additional activities that are offered by intermediaries, is challenged because the focus on costs underestimates the range of facilitating services that can be offered by intermediaries (Janssen & Sol, 2000; Sarkar, Butler, & Steinfield, 1995). As part of enhancing integrated service delivery, disintermediation of current channels might not be a trivial step and needs to be part of a conscious MCM strategy for interacting with citizens in which all options—and their effects on costs and service levels – need to be considered.
The discussion on disintermediation and re-intermediation in multi channel service delivery becomes important as both directions seem to have their merits. This research contributes to the debate about removing or adding intermediaries in service provisioning channels. The aim of this paper is to investigate innovative channel structures in government service provisioning. This paper is part of a research project, aimed at helping government agencies to develop a better multi-channel strategy. We first present theories on the concepts of intermediation, disintermediation and re-intermediation. Next, we present the case study of the Dutch Vehicle Licensing agency. In this case study, both efficiency gains and improved service delivery are achieved by the disintermediation of some channels and the re-intermediation of others. Finally, we discuss the findings and draw conclusions.

2 Dis- and re-intermediation strategies

Advances in ICT are widely acknowledged as causing fundamental changes in network structures (Clemons & Row, 1992; Malone et al., 1987). From a transaction cost theory perspective, advances in the use of ICT have been hypothesized to enable organizations to connect directly to each other, and in this way reduce transaction costs (Gellman, 1996; Malone et al., 1987). Transaction costs result from the transfer of property rights between parties and exist because of friction in economic systems (Coase, 1937; Williamson, 1975). Malone, Yates and Benjamin (1987) use transaction cost theory as the theoretical foundation for the electronic markets hypothesis and the bypassing of intermediaries, thus disintermediation. If we apply this transaction cost argument to the domain of government service delivery, government organizations can reduce transaction costs by cutting out intermediary organizations that exist in the channel structure. If government organizations use this argument as a driver in their channel strategy, the government would focus on connecting with clients directly. If any intermediaries are present in the channel structure, organizations would seek ways to bypass them by introducing or strengthening their own channels. Since direct interactions with clients offers more control over client contact, disintermediation is sometimes promoted as a way to improve service delivery as well as to reduce costs.

Sarkar, Butler and Steinfeld (1995) argue that predictions about disintermediation underestimate the range of facilitating services offered by intermediating parties. This implies a need for a better understanding on how intermediaries can be used in channel structures to interact with clients. Dis- and re-intermediation are dependent on the strategies, resources and assets of actors, and on the life cycle of an industry (Chircu & Kauffman, 1999). Furthermore, we argue that the structure of a network, the assets of organizations and the political situation might also influence dis- and re-intermediation.

Intermediaries can offer benefits that are not taken into account by the disintermediation argument (Giaglis, Klein, & O’Keefe, 2002; Janssen & Verbraeck, 2005). Even though government organizations are able to connect directly to clients, the need for reducing costs and the advantages of intermediation make it worthwhile to consider new types of intermediaries. Intermediaries are aimed at bridging the gap between the service providers’ offers and the service requesters’ wishes and requests. Traditionally, the concept of electronic intermediaries refers to phenomena such as portals, which is necessary for integrated service provisioning in the front office. In contrast, current types of electronic intermediaries focus on providing facilities for, or supporting the coordination of, public-private service networks, which is less visible. Advantages include reusing functionality among network members, exchanging information, coordinating network partners’ efforts and orchestrating cross-agency services. Therefore, besides a disintermediation strategy based on costs, a re-intermediation strategy can be considered in which organizations are part of the channel structure. Figure 1 shows the developments schematically, with a re-intermediation approach at the left hand of the figure and a disintermediation approach to the right.
The question remains what an intermediary exactly is. The literature seems to suggest that almost any organization supporting an interaction between two parties can be called an intermediary from some point of view (Bailey & Bakos, 1997; Resnick, Zeckhauser, & Avery, 1995; Sarkar et al., 1995; Spulber, 1996). Also, various other names are used, such as network administrative organizations (Provan & Milward, 1995). To sum it all up, an intermediary is anything that helps bring together producer and consumer, and smooth the relationship. In a public service network, producers are the public agencies and consumers are citizens or businesses. In the future, the role of intermediaries might even be extended with many services still in their infancy (Österle, Fleisch, Alt, & Bach, 2000). In a MCM strategy, not only public intermediaries should be considered, but private sector intermediaries as well. For example, the service desk at a post office might be equally suitable for offering simple government products as a municipal service desk, while offering more locations and easier access. The use of private sector intermediaries may put more stress on agreements and contracts that specify the relationships between organizations in a public-private network (Pongsiri, 2003). New types of intermediaries provide infrastructure facilities for supporting the interactions between network members and even are aimed at orchestrating a network to ensure smooth service delivery. An example of a highly mediated channel structure can be found in the tourism domain, where tour operators combine basic services of many suppliers (hotels, restaurants, car rental agencies, airliners, etc.) into a new product, and where travel agents act as information brokers and offer booking facilities (Werthner & Klein, 1999).

This implies an inclusive sense of what an intermediary is. Implicit in some of the preceding parts is the sense of an intermediary as an aid to connect to a target group by an organization. This is our view of an intermediary in the channel structure. An intermediary is in this way positioned between the clients and the providers of services and is part of the channel(s) organizations operate.

An important function intermediaries can perform in a public(-private) service network is creating a one-stop-shop by integrating disparate activities performed by separate organizations to produce a whole that exceeds the sum of its parts. One of the core activities is aggregating information about the participants, the offerings and its users. In a public service network, each government agency acts as a service provider to citizens and businesses, and each focuses on their own activities (Janssen et al., 2006). However, many of those activities are just a part of a more general service required by a citizen or a business. Such a general service may involve multiple processes of multiple organizations in the public and private sector, each operating its own channels. The service-delivery process needs to be coordinated across organizational boundaries. The coordination of the interdependencies of the organizations involved is a task which is still often performed by the client. Coordination can be defined as “managing the dependencies between activities” (Malone & Crowston, 1994, p. 90). The dependencies that need to be managed are those between the activities of

**Figure 1: intermediation strategies**
organizations in a service network and the dependencies between the channels in a multi-channel environment. An intermediary can offer a one-stop-shop to clients by taking over the coordination of the various channels and services. Other roles of intermediaries include matching demand and supply, aggregating information, providing trust and the facilitation of a service network (Bailey & Bakos, 1997; Janssen & Sol, 2000). The added value intermediaries can offer should be taken into account in strategies for interacting with citizens and businesses.

3 Case study: vehicle administration

To research the innovative mindset of the use of re- and disintermediation strategies in public-private service networks, we researched the Dutch Vehicle Licensing agency (abbreviated as RDW in Dutch). This case was selected as a good example of re-configuring a business network by enabling intermediaries in the channel structure. The RDW is also seen as an international good practice (Undheim & Blakemore, 2007). The case study was based on document analyses and interviews with practitioners and an expert.

Increased political demands were the main driver for the RDW to reconfigure the channel structure. The RDW was to improve supervision of the vehicles on the roads in the Netherlands, monitor technical safety and enhance the collection of the required taxes and fines. These functions were previously performed by several organizations (i.e. the police, the tax agency for motorized vehicles, the Ministry of Finance and the RDW), each with its own registrations of vehicles. Those registrations were expensive and of low quality due to its fragmented nature.

Many public administrations would, facing these demands, set up an executive agency to perform all those tasks. The organization would require substantive control over the various links in the vehicle service network. Given the many actors, activities and dependencies among those, such coordination task is big. Disintermediation would be the typical strategy. Applied to the case at hand, the strategy would suggest that the RDW took matters into their own hand. Instead, they adopted an innovative mindset and chose to redesign the service network by the disintermediation of some channels, and subsequent re-intermediation of others. The key functions of the new channel structure were admitting vehicles and components to the Dutch market (based on technical regulations), certifying companies that supervise the technical state of vehicles, issuing documents related to vehicles and their owners, and managing and sharing information about vehicles (Undheim & Blakemore, 2007, p. 81).

Part of the redesigned network is the transfer of car ownership, which features both dis- and re-intermediation. The transfer of car ownership can be done in two ways; a car can be bought from a car dealer or from a private individual. For changing the ownership of a car, the records containing car registration numbers has to be linked with the civil registry. The RDW has the mandate to do this, but is allowed to authorize other parties to link these registries. The RDW authorized the Post Offices to perform this function. A car buyer and seller (private individual or a car dealer) would have to go to the Post Office to change the registration of ownership. The Post Office ensures that people have identified themselves and that the transaction is legal. The notification of change would take about a week and a substantial part of the fee was retained by the Post Office (Undheim & Blakemore, 2007). The typical strategy of disintermediation would suggest that the RDW cut out the Post Office and offer the service through channels of their own, for example a website and a call center. Figure 2 illustrates this strategy.

![Figure 2: typical strategy - disintermediation](image-url)
In part, this is what the RDW did in their MCM structure redesign. They set up a call center and a transactional website and cut out the Post Office. In addition, car dealers were authorized to link the registries as well, and thereby they were enabled to transfer car ownership for their clients directly. With the disintermediation of the Post Office for this process, car dealers were re-intermediated in the service channel to function between their customers and the government. Still, for transactions between private individuals, the Post Office retained its function as an intermediary. Figure 3 shows this new intermediated channel structure.

**Figure 3: RDW solution - intermediated channel structure**

Instead of just cutting out intermediaries, the RDW choose a MCM approach in which organizations that were an inherent part of the service delivery chain are re-intermediated in the channel structure (Zuurmond, 2003). Besides an online channel, telephone inquiries and direct communication to citizens are still supported. The Post Office and car dealers act as a front desk with widespread offices and a far more logical location in the process (of buying a car) than the RDW could have implemented itself. For car dealers, being part of the channel structure enables them to offer a more complete service to their customers. They can help their customers by taking care of the administrative part online, instead of having to accompany them to a Post Office.

To enable the network redesign, the RDW setup a facilitating IT infrastructure in the vehicle chain, accessible for all organizations involved, including private parties such as car dealers, Post Offices, and insurance companies as well. Garages were certified to control the technical state of vehicles, police started using the network to identify cars, the collection agency to collect fines, the Ministry to collect taxes and the RDW, in cooperation with insurers, to check whether vehicles are insured. This network redesign, with the aid of private sector intermediaries, greatly reduced administrative staff and paperwork (Zuurmond, 2003). The financial results are very promising, with costs remaining relatively low, and income exceeding costs in 2006 (Undheim & Blakemore, 2007). The information quality of the vehicle administration has been improved significantly. This indicates that disintermediation of some channels while re-intermediating others, can improve both the efficiency of the chain and the quality of the services by using private sector intermediaries as a first point of contact for citizens.

4 Discussion: private sector intermediaries as part of a government service strategy

This paper is aimed at looking into intermediation as part of an innovative channel structure for government service delivery. In the RDW case study we found strategies for the disintermediation of some channels but also for the subsequent re-intermediation. For car dealers, the Post Office no longer is an intermediary in the process of selling a car. Instead, they have themselves become intermediaries for customers buying a car.

The use of intermediaries, or the choice to pursue a strategy of disintermediation, needs to be part of a conscious service strategy of a broader MCM approach. The case study shows that the disintermediation of some links and the re-intermediation of others, can improve the quality of the service. The strategies can be complementary and might both be needed to advance eGovernment; disintermediation to get rid of some of the traditional channels, and re-intermediation can be helpful in cases where products are complex and other
parties add value as an intermediary. What is more, a well designed channel structure and the necessary facilities can also increase efficiency. In the case study, savings exceed costs and both the supervision of vehicles and the quality of information improved.

Intermediaries like the car dealers in the case study, can strengthen the service delivery channel. For a customer of the car dealer, this saves the extra step of filing administrative paperwork. Car dealers are a logical point of entry in service chain of buying a car, and by facilitating such intermediaries the level of service delivery is improved. For other transactions, the Post Office can offer added value because of their widespread network of service desks. If we hold the thought of the Post Office’s function in the vehicle case, it is imaginable that Post Offices are used for other government-citizen interactions that require personal contact as well. The government can act as a network facilitator, enabling both public and private sector organizations to play their part in the service network. This requires a high quality facilitating infrastructure, but even more so a different mindset, with a focus on collaboration in a public-private service network. Although the solution adopted by the RDW might seem straightforward, it requires a radical reorientation to the concept of service delivery and networks. A culture of cooperation is needed, including both public and private partners. In a more far reaching scenario, this fundamentally alters the role of government without requiring major technological transformations. It is all about creating a different mindset and understanding that intermediaries can bring channels closer to the clients.

Service networks in which organizations explicitly design their collaboration are still at a formative stage, and it is hard to fully predict the roles and use of intermediaries. The roles of intermediaries will probably depend on multiple factors, like the present organizational structure, the political climate and available resources. In the Netherlands there seems to be a tendency to create uniform channels across many governmental agencies. Projects like a national authentication facility contribute to this. Enabling private organizations to become an active part of the service network might introduce risks like conflicts of interests, concerns on privacy, and equal and fair access and so on. These concerns cannot always be avoided and have to be dealt with. There should be mechanisms to ensure the overall quality of the entire service network, since a car dealer committing fraud might impact the trust in the RDW or even in the government as a whole. It is still unclear what the impact of private sector intermediaries is on the trust of citizens and business in government service delivery. In some cases, the use of an intermediary might actually lead to increased trust in a certain service or product. To provide an example from another domain, newspapers are often a trusted source of information for readers, thereby becoming a trusted intermediary (Ihlström & Palmer, 2002). In countries where private institutions like banks are trusted more then government, the use of such an organization as an intermediary in the channel structure, might increase trust in the service, and perhaps even in government service delivery as a whole.

5 Conclusions and future work

Disintermediation was traditionally viewed as a way of cutting costs and improving efficiency. As budgets are lowered this is a logical strategy for governments to pursue. However, governments are also aiming for demand-driven service provisioning. Re-intermediation could be a way to improve customer-orientation by introducing new channels, or channel structures, that match the citizens’ needs better than traditional channel structures. This strategy is less obvious, as it includes channels beyond the borders of the government organization.

We found that disintermediation and re-intermediation are complimentary to each other and both can help to advance eGovernment. Disintermediation might be necessary to get rid of low-performing traditional channels, whereas re-intermediation might be especially useful for improving the service quality and to connect to clients’ closest or most logical interaction point. Intermediaries can serve as a front desk, incorporate a government procedure in their product, or coordinate public service delivery processes, for example by bundling products and services like the aforementioned travel agencies. Rethinking the channel structure and introducing intermediaries can augment the other channels. The use of intermediaries is primarily a process of creating an innovative and collaborative mindset, in which trust is an essential ingredient. Therefore, we expect intermediaries to be of help in the next phase in improving government service delivery and suggest that government organizations consider the use of intermediaries in their channel structure to offer services closer to their constituents.
A lot is still unknown about the use, roles and responsibilities of intermediaries in government service delivery. For future research we argue for a careful analysis of the structure, functions and added value of intermediaries. Especially the role of private parties needs to be looked into, for example from the perspective of user resistance and the trusted role of intermediaries. Risks on the visibility of the government party, potential conflicts of interests, equal access, accountability, and other considerations in public-private cooperation should be examined further. The next step in our research is to compare the RDW’s approach with other successful cases with innovative, intermediated, channel structures.

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