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Hindering and supportive factors of cross-border information exchange

Abstract

The aim of this paper is to provide a well-detailed insight into the theories of international law enforcement information exchange and by this to provide guidance to strategic level decision makers how to improve their work and efficiency. The author tries to achieve this goal by introducing the relevant scientific theories in the field of organisational cooperation and adapting these 'civilian' concepts to the specific law enforcement context. The theoretical evaluation identifies three main environments, organisational, legal and technological (Yang and Maxwell, 2011), to find the supporting and hindering factors of law enforcement cross-border information exchange. Within the organisational environment the author examines how the bureaucratic organisational structure, the diverse organisational culture, trust, reciprocity and leadership influences the information sharing process. Under the policy environment, the impact of the national and EU legislation is introduced. Furthermore, the consequences of various data protection and privacy regulations, lack of harmonised national legislation and diverse interpretation of the policies are outlined under this section. Lastly, the characteristics of the hindering and supporting technological environment is detailed. Here we discuss the issue of interoperability, homogeneity and the state of the Information and Communication Technology (ICT) system and its impact to the exchange process. Based on the findings, the necessary conclusions are deducted and recommendations are elaborated which helps to eliminate barriers and thereby to create a supportive organisational environment. The most important recommendations are: to avoid coercive bureaucracy; to promote transformational leadership style and shared organisational culture; to establish a unified and harmonized legal background for cross-border information exchange; to create an information exchange friendly ICT environment and to ensure interoperability, homogeneity.

Keywords: cross-border information exchange, inter-organisational cooperation, organizational theory, law enforcement, policing

Introduction[1]

Transnational law enforcement cooperation was never as essential as it is today when hybrid security threats, terrorism, the changing form of radicalization, violence and organised crime are becoming more varied and more international (European Commission, 2016, 41). Cross-border information exchange is an important tool in the fight against these threats as it contributes to the detection of criminal activities such as terrorism, serious and organised crime, document fraud, facilitation of networks and the smuggling of human beings and weapons (Frontex, 2018). It also plays a crucial role, during the planning and implementation of preventive measures in the battle against the COVID-19 epidemiological situation. The importance of information exchange among law enforcement agencies (LEA) was recognised by various agencies and institutions in the EU (Frontex, 2018.; Europol, 2018), yet personal experiences show that there are serious shortcomings in cross-border information exchange when rapid information is required in order to properly fulfil the police job. First of all, the information exchange activity of a LEA depends on many factors, such as the level of organisational centralisation, the culture of the agency and the individual, the implemented and enforced internal policies, national and international regulations and the applied technology. In practice, this results in disharmonious and inconsistent information exchange activity among and even within the Member States (MS) (Doherty et al., 2015, 6.), which leads to delayed or not fulfilled exchange. Nothing shows the need for a real-time information exchange better than the proliferation of informal communication channels, which utilise personal relationships and networks in order to receive a rapid answer about persons or documents (Kemeny, 2019, 2.). I have also experienced that cross-border information exchange is sometimes not initiated and therefore appropriate police measures are not taken when the field officers know there is no chance to receive a formal or informal reply rapidly. The aim of the research is to introduce the supportive and hindering factors of cross-border information exchange and to provide guidance to the managers and decision makers how

to improve the organisational, legal and technological environment in order to contribute to an efficient information sharing activity thereby to an increased national and EU security.

The definition of information exchange

Forms of interactions

Four main types of personal and organisational interactions are distinguished by the literature: communication, cooperation, coordination and collaboration. Although these types are often used in an interchangeable way, they differ considerably. Firstly, communication is a process whereby information and ideas are exchanged between entities. It helps in developing shared understanding and to communicate goals and objectives. Communication can be one-way or two-way and can be real-time or non-real-time. Second, coordination is the deliberate adjustment, synchronization of the work of different organisations to achieve common goals, without interference (Ranjay – Wohlgezogen – Zhelyazkov, 2012). It is a well-defined process, which can encompass meetings, sharing of information or resources. A more intense form of working together is cooperation, which is a joint pursuit of common and well-defined goals, *'when not only information or resources are shared but also work'* (Martin, 2017, 5.). Contrary to coordination, cooperation requires a kind of mission alignment and the harmonisation of previously separated activities to achieve joint goals. Finally, collaboration is the highest level of interaction. It is the process of jointly creating something that had not been done before, when organisations with *'complementary skills interact to create a shared understanding that none had previously possessed or could have come to on their own'* (Denise, 2007, 3.). Cooperation, coordination and collaboration require a two-way communication activity. This is information exchange.

Levels of information exchange

Information exchange can be defined as the formal and informal sharing of significant and timely information between two or more parties (Čater, 2008, 3.). According to Mausolf (2010) information exchange can be conducted on three interrelated levels, namely the inter-personal, intra-organisational and inter-organisational ones. Inter-personal relationships can facilitate information

exchange between individuals, it is conducted when *'individuals share information within the context of interpersonal relationship'* (Yang and Maxwell, 2011, 165.). Intra-organisational information exchange means that the different units with different functions are using the knowledge and information from each other within one organisation (Sardjoe, 2017, 26.). It is essential in the proper functioning of the organisation. The information sharing process among these subunits can be considered as a smaller scale of inter-organisational information exchange, for this reason we can find some similarities in their nature. Inter-organisational information sharing is conducted between independent organisations, it can increase the efficiency and the interoperability of the organisations. Inter-organisational information exchange is more complex than the intra-organisational one, as the influencing factors are more complex and diversified when various organisations are involved in the process (Gil-Garcia, 2015). Even though there is a strong distinction between the levels, it is clear that these levels of information exchange are interrelated: Intra-personal information exchange is embedded in the intra-, and inter-organisational information exchange and even further, the intra-organisational information exchange is embedded in the inter-organisational one. The levels should be connected to each other in order to create an efficient information-sharing environment.
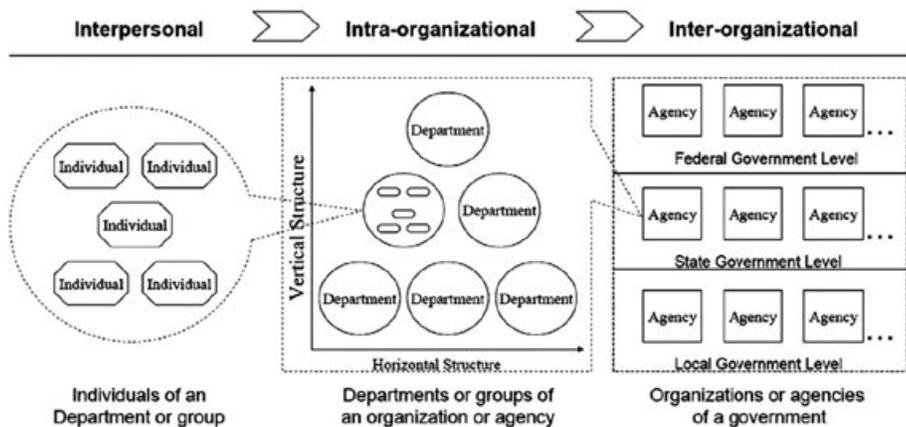

Fig. 1. Interrelation among different levels of Information Sharing relationship'
(Yang - Maxwell, 2011, 172.)

This theory is supported by Saloven et al (2010, 83.), which states that weak internal coordination and inter-organisational information exchange can negatively influence cross-border information exchanges. Besides the (inter)connection of the levels, efficient information-sharing requires adequate organisa-

tional-managerial, legal and technological environments, which are determined by various factors such as the ICT, organisational structure, culture and values, human resources, trust, leadership, rewards, self-interest, legal instruments and regulations (Yang and Maxwell, 2011, 172., Dawes, 1996, Zhang - Dawes, 2006). These environments will be detailed under the next section.
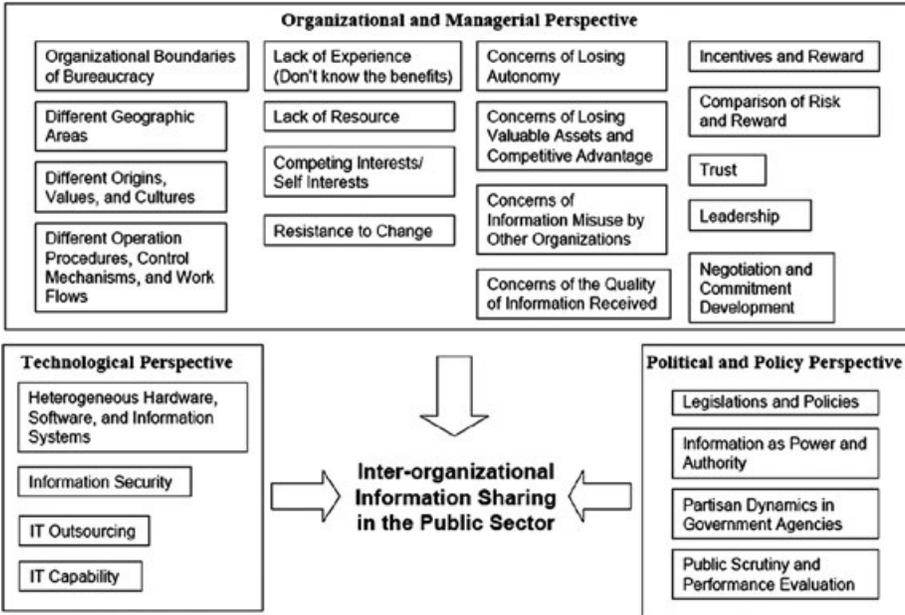

Fig. 2. Factors influencing inter-organisational information sharing
(Yang – Maxwell, 2011, 169.).

Factors effecting inter-organisational information exchange

Organisational environment and management

Bureaucratic organisation

In the literature two main types of organisational structure are distinguished: the bureaucracy and the adhocracy (Gruszczak, 2016, 165., Duncan, LaFrance and Ginter, 2003, Mintzberg, 1989, Lunenburg, 2012). Bureaucracy can be characterized by formalized and hierarchized structure, functional departmentalisation and by standardized regulations and procedures (Argote et al, 200.). Rainey (2009, 209.) describes formalisation as *'the extent to which an organisation's structures and procedures are formally established in written rules and regulations'*.

Based on this, researchers distinguish between facilitating (good) and coercive (bad) bureaucracy (Adler and Borys, 1996, 78.). Supporters of facilitating bureaucracy states, it helps employees to work more efficiently and to strengthen their commitment (Adler and Borys, 1996, 83.) by using good regulations and procedures. Such rules, the so called 'green tape', contribute to the efficiency of the organisation (DeHart-Davis, 2009), they help to manage the complexity of the environment, reduce risks and minimise uncertainties. Followers also argue that departmentalisation and standardisation contribute to specialization and can thereby increase efficiency and help individuals to be more effective by providing the necessary guidance and detailed responsibilities (Adler and Borys, 1996, 61.; Deming, 1986). On the other hand, coercive bureaucracy and its rules are designed to force the reluctant obedience and *'to extract recalcitrant effort'* (Adler and Borys, 1996, 69.). The presence of 'red tape', the excessive, rigid and redundant formal rules or procedures that serve no noticeable organisational functions *'result in inefficiency, unnecessary delays, frustration, and annoyance'* (Bozeman and Scott, 1996, 8.). This formalisation can hinder and prevent action or decision-making argued by Chung-An (2010). Moreover, these rules are positively related to psychical and psychological stress, the feeling of powerlessness and have a negative impact on innovation, openness to new ideas, motivation and job satisfaction (Rousseau, 1978.; Arches, 1991.; Kakabadse, 1986). The presence of 'red tape' is seriously hampering cross-border information exchange (Yang and Maxwell, 2011.; Saloven et al., 2010, 112.). All in all, centralisation and hierarchical structure hinder initiatives and actions for the exchange of information, as individuals lack autonomy and managerial approval is required in most decision making processes (Kim and Lee, 2006), which strictly controls the information flow and exchange (Wheatley, 2006.; Tsai, 2002.; Creed, 1996.; Tsai, 2002).

Trust

Trust is a crucial relationship building block, which is often *'defined as a belief that one relationship partner will act in the best interest of the other'* (Wilson, 1995). Both inter- and intra-organisational trust influence cooperation and information exchange. The lack of trust among national organisations can seriously hamper cross-border information exchange. For example, a previous study has shown that a national authority refused to provide the requested information because doing so would allow another national LEA to have access to the information (Saloven et al., 2010, 83.). Although there is a lack of empirical

testing of inter-organisational trust models (Adams et al., 2010), a positive relationship between the degree of trust and the will for information sharing seems to exist (Goldenberg, Soeters and Dean, 2017, 85.). This positive correlation can be experienced in the field of international police cooperation where mutual trust and personal relationships are the most compelling forces (Hufnagel, 2016, 86.; Doherty et al., 2015, 89.).

Due to the importance of trust, number of theories have emerged on trust development. These theories can help to explore the origin of trust, such as calculation (cost, risks, advantages, benefits), understanding (common culture, values, moral and so on) or personal identification (Child, Faulkner and Tallman, 2005). Bstieler (2006) argues that the trust can be developed and maintained by timely, reliable, and adequate information sharing and perceived fairness. Other factors that support inter-organisational cooperation and trust are mutual benefit, mutual bonding, predictability and conflict resolution. We can speak about mutual benefit when partners are honouring their commitments, when legal safeguards are established and understood, a clear and well detailed written working agreement is in place, the project is feasible, and the commitment is realistic. Also, mutual bonding is important on each level as it encompasses the regularly maintained friendly relationship between the staff and also between the managers of the organisations. A good personal relationship between the managers must also be recognisable for the staff in order to have a trust building effect. Already established trust can be further strengthened by increased mutual bonding: when more colleagues trust each other, their relationship becomes more personal (Teboul and Cole, 2005., Sias and Cahill, 1998). Finally, predictability can be ensured by free information exchange and clearly defined and agreed responsibilities on both sides, while conflict resolution can be ensured by appropriate dispute resolution mechanisms for both work-related and personal disputes (Child, Faulkner and Tallman, 2005). As conflicts have a negative impact on trust formation (Bstieler, 2006), conflict resolution techniques should be available within and between the organisations. Saloven et al. (2010, 83, 111.) argues that the greatest danger to the formalisation of trust at the police is (the fear of) corruption or the fear of outsourcing the shared information.

Reciprocity and reputation

There is a general belief and norm of reciprocity, which states that helping rather than hurting behaviour is to be preferred (Koeszegi, 2004). The anticipated reciprocity positively influences the individual's attitude towards information

sharing (Constant, 1994.; Bock et al., 2005). Moreover, reciprocity plays an important role not just between individuals, but also between organisations. A positive correlation exists between the extent of information sharing and the degree of reciprocal interdependence meaning that each participating organisation possesses information that others need and vice versa (Travica, 1998, 1228.). Consequently some academic literature concludes that reciprocity promotes and stabilizes international cooperation (Axelrod, 1990.; Keohane, 1986). Research on cross-border information exchange also argues that reciprocity and delayed responses are correlated. As Doherty et al., revealed (2015, 29.), delays can lead to further delays as some individuals base their information exchange efforts on reciprocity, and individuals are much more motivated to react quickly to those MSs which also react quickly. Another important supporting factor, which is correlated with reciprocity, is reputation. The lack of reciprocal action results in a loss of reputation (Koeszegi, 2004). Moreover, positive reputational calculations are the driving factors of police cooperation especially at *'turf conscious bureaucratic organisations'* (Busuioc, 2015, 41.).

Organisational values, norms and cultures

Organisational values, norms and cultures also influence the attitudes of individuals and the collective actions regarding information sharing (Constant, Kiesler - Sproull, 1994., Jian - Jeffres, 2006). This is especially true on the field of cross-border law enforcement information exchange. Although, as Hartmut (2001, 100) found that, the historical roots are common *'neither police organisations nor their daily actions are uniform'* in all countries. The police structure is centralised in some countries, and decentralised in others, some countries have single police force others have multiple (Bayley, 1990). On the field of law enforcement, organisational culture is different in each EU MS, which comes from the diversity of the socio-cultural-, historical backgrounds, education, mentalities, work traditions, habits and fragmentation of the law enforcement tasks and authorities. Organisational differences, such as the diverse national systems, the different culture, the different geographical locations of the national services, the different division of police tasks among various organisations and the different task distribution within one organisation result in a different structure of cross-border information exchange. This significantly influences the efficiency of such exchanges (Saloven et al., 2010, 19.). Moreover, as Styczyńska and Beaumont (2017, 9.) the cultural diversity creates misunderstandings and the *'lack of synchronisation in the communication between*

police forces can hamper cross-border police cooperation'. Intra and inter-organisational law enforcement information exchange are positively influenced by an organisational culture that decreases the internal competition (Doherty et al., 2015, 50.) and emphasizes fairness, solidarity, mutual interests, shared goals and organisational ownership of the information (Bock et al., 2005., Jarvenpaa - Staples, 2001). The task of information sharing should be part of the organisational culture in order to increase the will of the individuals to exchange information and to avoid clashes between the information sharing efforts and the organisational culture (Wilson, 1989, Zhang, Dawes - Sarkis, 2005). Researchers found that strong shared belief, attitude and behaviour increases the organisational commitment and promotes information exchange (Marks et al., 2008., Willem - Buelens, 2007). The strong social network (informal social interactions and personal relationships) is also an important promoting factor (Kolekofski - Heminger, 2003, Reagans - McEvily, 2003). This structural and cultural diversity and their effect on cross-border information exchange was recognised by the European Commission (2004), they emphasised the importance of creating a common culture and common instruments in order to increase cross-border information exchange and cooperation.

Reward and bonus system, leadership

An appropriate (performance based) reward or bonus system designed specifically to encourage information exchange motivates individuals to share information and thereby greatly facilitates information exchange was found by Zhang, Dawes and Sarkis (2005, 552.). Yang and Maxwell (2011, 173.) complement this by arguing that, the general, non-specific incentive methods can create competition that hinder inter-organisational information exchange, therefore, the importance of information exchange in performance assessment should be emphasised and assigned (Soeters, 2017). The attitude of the leadership also determines the reward and bonus system. Resteigne and Van den Bogaert (2017, 58.) found that *'the style of the leadership can enforce the negative and positive attitude towards information exchange'*. An authoritarian leadership style, for example, can dissuade staff from developing a positive approach towards information sharing. Contrary to this, transformational leadership encourages staff to exchange information (Goldenberg - Dean, 2017). Moreover, strong leadership supports the sharing of information, the organisational culture, the reward system and provides vision and guidance which can support initiating and exchanging information in an organisation (Akbulut et al., 2009).

Staff condition

The researchers argue that the conditions of the human resources also influence the exchange of cross-border information. One of the main reasons for delays in response is the absence of a 24/7 coverage (Saloven et al., 2010, 82.) and an increase in information exchange which is not followed by an increase in staff (Doherty et al., 2015, 29.). This theory is supported by Yang and Maxwell (2011, 170.), who stated that the lack of staff can hamper cross-border information exchange, as the agency *'may focus on urgent issues within its own organisation when the immediate benefits of sharing information cannot be foreseen'*. However, not only the number of staff, but also their knowledge play an important role in order to exchange quality information (Saloven et al., 2010, 105.). The lack of training courses for field officers and the lack of awareness could hinder cross-border information exchange. The staff should have knowledge about intelligence and criminal investigation techniques, national legislation and data protection rules and receive regular training courses (Council, 2014, 15.). On the other hand, the end-users (requesters, investigators) also need to have appropriate knowledge about the existing channels.

Language

In the field of cross-border information exchange, communication in a foreign language can be a major obstacle and cause complications for daily police cooperation (Hofstede, 1993.; Hufnagel - McCartney, 2017, 5.). Insufficient knowledge of the foreign language significantly hinders cross-border information exchange (Styczyńska - Beaumont, 2017, 9.). Furthermore, the proficiency in a common language is a precondition of optimal information sharing (Goldenberg, - Dean, 2017) as it makes it easier to understand the organisational culture, the information needs and it could also help to create social networks. On the other hand, Saloven et al., (2010, 83.) demonstrated that, although language barriers exist, they do not have a significant effect on cross-border information exchange. Nevertheless, they continued, the use of the same language supports the exchange of information, as the quality of the information shared is usually higher between MSs using the same language. Moreover, one common language increases efficiency in case of an urgent request, as this could contribute to a better responsiveness. The need for translation services slows down the process and may influence the quality of the information exchange (Saloven et al., 2010, 60.).

Policy, legal environment

The ruling policies and the legal environment have an impact on the behaviour of the individuals and of the organisation, and therefore on the cooperation between the organisations. Stable and accountable legislation and administrative procedures – who has access to what information and in which way – can mitigate the risks and can enhance inter-organisational cooperation (Landsbergen - Wolken, 2001, Lane - Bachman, 1996). Researchers argue that confidentiality and privacy should be supported by the legal environment in order to facilitate information exchange (Gil-Garcia - Pardo, 2005). Clear legislation, regulation and policies are therefore fundamental to reduce uncertainties created by a difference in organisational culture, conflicting political and legal principles and competing values such as *'privacy, system integration, security, and confidentiality, which constantly threaten to put restrictions on information sharing into inflexible legal forms'* (Zhang, Dawes - Sarkis, 2005, 552.). On the other hand, a rigid legal environment and policies that prohibit sharing sensitive and regulated information in domains such as public safety and security can create barriers to cross-border information exchange and may hamper cooperation (Zhang, Dawes and Sarkis, 2005, 558.; Gil-Garcia - Pardo, 2005). Moreover, *'pre-defined policies about program boundaries and goals may create barriers to information sharing'* (Yang - Maxwell, 2011, 170.). Researchers point out that the implementation of polices and rules for instructing international cooperation do not guarantee the following of the decrees. Factors, which have already been mentioned, such as turf wars and lack of trust can make individuals and the organisation reluctant to cooperate (Wilson, 1989). This theory is applicable both to national and international cooperation, but researchers state that *'the magnitude of the problem is only compounded in a trans-boundary context'* (Busuioc, 2015, 40.).

In the field of cross-border information exchange Saloven et al., (2010, 83., 94.) pointed out that the requirements of different national legal systems, different data protection and privacy regulations, secrecy and confidentiality issues are among the main hindering factors of cross-border information exchange. A difference in national data protection and privacy rules regulate the access to the same type of information differently in the MSs. Different national legal requirements and restrictive or various interpretations of the existing rules, as well as uncertainty about what information another MS can provide also hinder efficient cross-border information exchange and violate

inter alia the Hague Programme introduced principle of availability[2]. Different national laws lay down different law enforcement procedures for cross-border information exchange which also blocks the process. The different national classification systems, interpretations and a lack of harmonisation of national legislation and the different understanding of EU and international legal bases also pose problems for the exchange of confidential information, and could cause implementation problems (Saloven et al., 2010, 94, 95.). Finally, the lack of strategic approach, the proliferation of non-binding (intergovernmental) instruments, the slow decision-making procedure on the EU level, the slow implementation of legal instruments adopted by the Council and the existence of signed but not ratified agreements were identified as the main policy impediments (Commission, 2004.; Saloven et al., 2010, 94, 82.).

Technological environment

Although researchers argue that the challenges deriving from the technological environment are less complex than the factors of the organisational and policy environment (Brazelton - Gorry, 2003.; Landsbergen - Wolken, 2001), the importance of the technological background must not be underestimated. Efficiency of inter-organisational collaboration and information exchange can be increased by the advancement of the ICT (Zhang - Dawes, 2006). An appropriate ICT environment can ensure shorter response times and better data quality (Commission, 2012, 12.). The ICT system supports information exchange if different systems are homogeneous, the system combines user friendly ICT applications and has a high number of users (Kim - Lee, 2006). However, the diversity of ICT systems makes the integration into one homogenous system complicated (Atabakhsh, 2004; Doherty et al., 2015, 23.). Saloven et al. (2010) concludes that, the most common ICT related hindering factors come from the incompatibility of the systems, such as different software versions being in place which can create obstacles to opening files, different size limitation of emails, security rules (firewalls, blocking attachment etc.) and a different level of available technology (fax, email, cloud, closed network etc.). Furthermore, the lack of direct access to the necessary databases and the absence of interoperability create obstacles during the information exchange (Saloven et al., 2010, 85.). The European Commission (Commission, 2004, 12.) also rec-

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2   European Council, The Hague Programme: strengthening freedom, security and justice in the European Union, 2005/C 53/01 (Brussels, 3.3.2005, 1-14.).

ognised the heterogeneity of ICT systems and found that the large number of different and non-interoperable databases and communication systems create duplications and hinder cross-border information exchange. Furthermore, the *'perceived usefulness and perceived ease of use and the absorptive capability'* (Yang - Maxwell, 2011, 165.) of the ICT system also have an impact on the individual acceptance of the system and individuals' belief in inter-organisational information exchange. The level of information security, the lack of secured communication channel and the old-style data transfer systems are other factors which can hinder inter-organisational information exchange (Saloven et al., 2010, 84.). Ensuring access authorization, authentication, security and confidentiality are critical in the design of the ICT system (Chau et al., 2001). A case management system which helps to evaluate, classify and disseminate the information originating from all channels and national authorities and which has an interface to a secured communication platform, increases the efficiency of cross-border information exchange if it is accessible for the information exchange channels (Doherty et al., 2015, 48.).

Conclusion and recommendation

Based on the research we can conclude that the theory on the influencing environment at the public administration information sharing process (Yang - Maxwell, 2011) is also applicable to the LEA cross-border information exchange. Within the organisational-managerial environment the highly centralised, coercive bureaucracy, the lack of shared organisational and inter-personal culture, the absence of trust, reciprocity and adequate reward system and the authoritarian leadership style are the most important hindering factors. As far as the policy-legal environment is concerned, the stable and accountable legislation regulates inter-organisational information exchange which ensures confidentiality and privacy in order to create a supportive legal environment. Additionally, rigid regulations, interpretations and procedures are considered as serious hindering factors for information exchange. Regarding the technological environment, we found that a state of the art, user friendly and homogenous ICT system can increase inter-organisational information exchange however, the system must also ensure adequate information security. Based on the identified gaps, one of our most important suggestions is to create a unified and harmonized legal background for the cross-border information exchange and to equip all actors to be able to conduct fast cross-border information exchange. Furthermore, the management must be aware of the importance of supporting, transformational lead-

ership in the information exchange, which can be ensured by organizing managerial training courses. Management could introduce a tailor-made incentive system and provide appropriate feedback. This could be supported by the legislation which creates an institutionalised feedback system providing thereby the opportunity to the staff to be aware of the outcome of their job. Decision makers shall promote the organisational change towards a supportive, less centralised and facilitating organisational structure that motivates and encourages the staff to perform tasks independently and in a flexible way. Last, but not least, team building activities (e.g. workshops, joint sport activities and recreation, etc.) shall be promoted in order to increase the level of trust within and across the organisations. Staffing and the ICT environment of the channels need to be adequate to conduct secured information exchange around the clock. Taking into consideration the sovereignty of the MSs and the ruling data protection concerns, the question whether the MSs are willing to share their national databases seems to be a rather ambitious request. However, the establishment of a direct and secure connection between the actors could be one of the most feasible solutions. Next, interoperability should be ensured to increase the speed of the information exchange. User friendly and advanced ICT system should be created which support rapid response time. Moreover, minimal requirements and ICT standards need to be designed and put in place on EU level, this shall promote the use of Unified Message Format and secured channels during the information exchange. Finally, in order to avoid duplication and to decrease the workload, a case management system should be set up, which promotes the information exchange process.

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