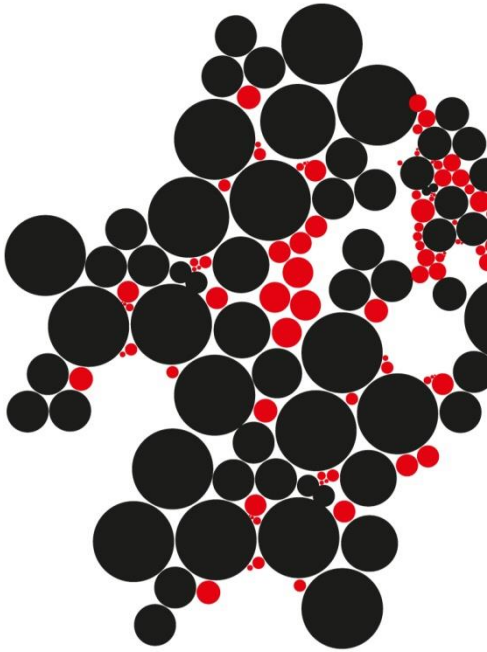




THE IMPACT OF CONSORTIUM CHARACTERISTICS ON CREDIT RECOGNITION PERFORMANCE

Case study analysis of the Erasmus student mobility
in frames of the ECIU consortium
for the academic years 2007/2008 to 2011/2012

Goran Đaković

FIRST SUPERVISOR PROF. DR. HANS VOSSENSTEYN
SECOND SUPERVISOR DR. HARRY DE BOER

STUDY PROGRAMME
Public Administration, specialization Policy & Governance

SUMMARY

Credit recognition remains one of the largest problems of the Erasmus mobility programme. The European Commission and other higher education stakeholders propose the solution to the identified problem in more “structured” mobilities. One approach to the “structured” mobilities is the higher education consortium. The presented research reveals, what are the beneficial aspects of the higher education consortium on the credit recognition performance of the individual partner university. Due to the mobility within the consortium, the partner universities increase their credit recognition performance. The two most relevant consortium characteristics, which positively influence the credit recognition performance, are: a) the inter-organizational trust in academic quality of the mobility partners, and b) the idiosyncratic (tacit) dimension of language within the consortium. Collective sanctions have an opposite effect and repress the credit recognition performance. Moreover, the network positioning of empirical results additionally reveals, which partners mostly benefit from consortium mobilities. Universities, which are positioned in the part of the network with the highest network density, state better credit recognition performance.

Keywords: higher education consortium, Erasmus student mobilities, consortium characteristics, credit recognition performance, inter-organizational trust

TABLE OF CONTENTS

1. RESEARCH OBJECT AND AIMS OF THE STUDY	7
2. ERASMUS STUDENT MOBILITY IN FRAMES OF THE HIGHER EDUCATION CONSORTIUM.....	12
2.1 The Erasmus Programme and related credit recognition tools	13
2.2 Higher education consortium	14
2.3 Attributes of student mobility within the higher education consortium	17
2.4 Erasmus student mobility within the ECIU consortium	18
3. THEORETICAL FRAMEWORK.....	21
3.1 The embeddedness perspective.....	21
3.2 Transaction costs economics in the network governance	23
3.3 Resource dependency theory in the network governance	24
3.4 Theoretical model of inter-organizational processes within the consortium: the identification of consortium characteristics	25
4. OPERATIONALIZATION OF THE RESEARCH MODEL.....	31
4.1 Structural embeddedness variables (set of independent variables)	34
4.1.1 Information sharing	35
4.1.2 Joint problem solving.....	37
4.1.3 Inter-organizational trust.....	39
4.1.4 Reciprocity	41
4.2 Social mechanisms' factors (set of intermediary variables).....	43
4.2.1 Macro-culture	43
4.2.2 Restricted access to exchanges.....	46
4.2.3 Collective sanctions.....	47
4.2.4 Reputation.....	48
4.3 Credit recognition performance variables (set of dependent variables).....	51
4.3.1 Study courses matching ratio	52
4.3.2 Length of administrative procedures for credit recognition.....	53
4.3.3 Level of developed organizational procedures for student mobilities	53
4.3.4 Level of satisfaction with learning outcomes by higher education teachers	54
4.4 Research design	55
4.4.1 Case study sampling method	55
4.4.2 Data collection and the research tool	56
4.4.3 Data analysis.....	58
4.4.4 Quality control mechanisms	59
5. EMPIRICAL ANALYSIS.....	62
5.1 Empirical analysis of the credit recognition performance variables	63
5.1.1 The primacy of academic satisfaction with the learning outcomes.....	63
5.1.2 Absent correlations with the matching ratio of study courses and the level of developed organizational procedures	65
5.2 Empirical analysis of structural embeddedness variables	69
5.2.1 Central role of the inter-organizational trust among ECIU partners.....	69
5.2.2 Absent variables: information sharing and reciprocity.....	71
5.2.3 High relevance of governance mechanisms for the development of inter-organizational trust.....	73
5.3 Empirical analysis of social mechanisms variables.....	78

5.3.1	The intermediary role of idiosyncratic language and collective sanctions in credit recognition processes	78
5.3.2	Absent correlations with the restricted access to exchanges and reputation ...	80
5.3.3	Commitment: the ECIU structural embeddedness variable.....	81
6.	CONCLUSIONS AND RECOMMENDATIONS	85
7.	REFLECTIONS	94
8.	LITERATURE.....	100
9.	APPENDICES	104

FIGURES

Figure 2.1: All Erasmus student mobility partners of the University of Twente (academic years 2007/2008 to 2011/2012)	12
Figure 2.2: Three types of network governance forms	16
Figure 2.3: Erasmus student mobilities within the ECIU partner universities after the Kamada-Kawai separate components energy (academic years 2007/2008 to 2011/2012)	20
Figure 3.1: The interaction of exchange conditions, structural embeddedness and social mechanisms in the network mode of governance	24
Figure 3.2: Explanatory model of collaboration and coping mechanisms in the higher education consortium	25
Figure 3.3: The impact of structural embeddedness on credit recognition performance in the higher education consortium, with the identified outcomes and control mechanisms	29
Figure 4.1: The empirical research model	32
Figure 4.2: Structural embeddedness variables	35
Figure 4.3: Social mechanisms variables	43
Figure 4.4: Credit recognition performance variables	52
Figure 4.5: Selected representative institutions within the ECIU consortium (based on the identified control mechanisms)	58
Figure 5.1: The presence of credit recognition performance variables within the ECIU consortium	68
Figure 5.2: The presence of structural embeddedness variables within the ECIU consortium	77
Figure 5.3: The presence of social mechanisms variables within the ECIU consortium	84
Figure 6.1: Outcomes of the study	89
Figure 6.2: The presence of the research outcomes within the ECIU consortium	91
Figure 7.1: Subgroups of highly intensive collaboration universities in the Erasmus programme for the academic years 2007/2008 to 2011/2012	95
Figure 7.2: The example of development stages for the higher education consortium, in regards to the network density	96
Figure 7.3: The network governance triangle	98

TABLES

Table 2.1: The selection criteria for the most appropriate network governance form	15
Table 2.2: General information about the selected consortium	19
Table 4.1: Operationalization of the information sharing variable	37
Table 4.2: Operationalization of the joint problem solving variable	38
Table 4.3: Operationalization of the inter-organizational trust variable	41
Table 4.4: Operationalization of the reciprocity variable	42
Table 4.5: Operationalization of the commitment variable	45
Table 4.6: Operationalization of the idiosyncratic language variable	46
Table 4.7: Operationalization of the restricted access to exchanges variable	47
Table 4.8: Operationalization of the collective sanctions variable	48
Table 4.9: Operationalization of the reputation variable	49
Table 4.10: Concluding questions for the discovery of possible additional variables	50
Table 4.11: Summary presentation of theoretical correlations between the independent, intermediary and depended variables	54
Table 5.1: Summary chart for the empirical analysis of the credit recognition performance variables	67
Table 5.2: Summary chart for the empirical analysis of the structural embeddedness variables	76
Table 5.3: Summary chart for the empirical analysis of the social mechanisms variables	83
Table 5.4: The summary of empirical results for the ECIU consortium	84
Table 6.1: The list of recommendations for the ECIU consortium	93

APPENDICES

Appendix 9.1: ECIU consortium members.....	104
Appendix 9.2: Subordinate research models, which explain correlations between identified independent, intermediary and dependent research variables	105
Appendix 9.3: Detailed information about the implemented interviews with the ECIU representative universities and the ECIU headquarters.....	106
Appendix 9.4: Track of interview changes.....	106
Appendix 9.5: Interview questionnaire for the consortium member institutions.....	107
Appendix 9.6: Interview questionnaire for the consortium headquarters.....	109

1. RESEARCH OBJECT AND AIMS OF THE STUDY

European higher education institutions have been faced with number of structural changes in the last few decades. The international dimension of higher education has become increasingly important due to the growing influence of economic and social globalisation. Flows of technology, economy, knowledge, people, values, and ideas across borders have strongly shaped the internationalization of higher education (Enders, de Boer, & Westerheijden, 2011; Knight & de Wit, 1997). Processes of internationalization are defined as integrating “an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education” (Knight, 2007, p. 214). In Europe, these processes have been additionally accompanied by the “Europeisation” of higher education (Marginson & van der Wende, 2007, p. 45). The entanglement of political, educational and economic motives within the European Union endeavoured not only for further European integration and economic cooperation, but also the academic and cultural collaboration, which strongly influenced the functioning and further development of the European higher education. The Sorbonne Joint Declaration (1998) and the Bologna Declaration (1999) introduced number of specific instruments to the European-wide comparability and compatibility of higher education systems: the common framework of comparable degrees, the introduction of levels of studies in all countries, the ECTS-compatible credit system, the European dimension of quality assurance, and the elimination of remaining obstacles for free student mobility. In year 2010, all listed objectives resulted in formation of the European Higher Education Area (EHEA).

The Erasmus student exchange programme has been the most visible component of these processes in Europe (Teichler, 2009)¹. The rationales of the Erasmus student mobility are summarized in the following four categories: as means to promote the European labour market; means which support the transfer of knowledge and skills between the EU member countries; means for creating the European identity; and means for educational purposes (Papatsiba, 2005, p. 174). Three out of the four listed rationales strongly present the European-wide convergence of higher education systems (see also Nokkala, 2004; Papatsiba, 2006). Such convergence has an important influence on the institutional processes within the individual university, including the credit recognition processes, which are the research object of this study. The necessity to provide the European-level support to credit recognition processes of student mobilities has been identified for the first time in the article 126 of the Maastricht Treaty (1992) (West & Barham, 2009). Tools, which have been

¹ For general relevance of student mobility in the internationalization processes see for instance Hénard, Diamond, and Roseveare (2012).

afterwards developed within the Bologna Process (such as course catalogues, institutional agreements, transcripts of records, learning agreements, the ECTS Users' Guide, and diploma supplement) are the result of this necessity and enable the European-wide credit transfer and accumulation (European Commission, 2013).

However, difficulties have been continuously highlighted about the credit recognition processes in the Erasmus programme. These difficulties have been identified throughout the programme implementation since 1987. Analysis for the academic years 1988/89 and 1990/1991 for instance identifies credit recognition problems as one of five serious problems of student mobility in Europe (Teichler, 1996). More than a decade after this research, approximately half of the 900 higher education institutions, which have been included in the Trends V Report, reported that some students have credit recognition problems with periods of studies abroad (Crosier, Purser, & Smidt, 2007). The percentage has decreased only slightly in comparison to the year 2003 and even risen in the Trends 2010 Report up to the 54 % of all responding higher education institutions (Sursock & Smidt, 2010, p. 79). Students' viewpoint confirms these trends. In 2010, on average one third of students, which have been included in the research, fears that their study mobility credits will not be recognized (Vossensteyn et al., 2010). Even more, credit recognition and transfer remains the second most significant problem of the Erasmus student mobility right after the financial issues (ibid.). The research report PRIME 2010, provided by the European Student Union confirms such results (Dicle et al., 2010).

Trends V report identifies two possible reasons of continuing high-levels of non-recognition rates: the institutional recognition procedures not working optimally and/or the ECTS not being used properly (Crosier et al., 2007, p. 41). Both identified problems have been addressed by the European Commission. The proper usage of the ECTS has been promoted with the updated ECTS guidelines (Education and Culture DG, 2009). However, more relevant for this research is the discourse on institutional-level processes, associated with the credit recognition procedures. We focus on these (inter-organizational) cooperation processes, which need to be optimised. This research provides an insight into the presented issue for one selected inter-organizational mobility arrangement – the higher education consortium.

According to the Trends V Report there are individual universities who “could and should do more to ease problems with recognition of [...] periods of study abroad” (ibid., p. 47). Based on these guidelines of the Trends V Report, the London Communiqué (2007) introduces “the importance of strong institutions, which are diverse, adequately funded, autonomous and

accountable” in solving their own problems (“London Communiqué,” 2007, p. 1). Such emphasis is an important turning point for the European Higher Education Area. It acknowledges that the Bologna Process (with its carrying programmes, such as the Erasmus Programme) will be successfully implemented only if higher education actors are empowered. This shift has also been identified by Birtwistle (2009) in his analysis of the Bologna Process context. In the case of the Erasmus student mobility, it is believed that not only the European-level policy rules and supranational organizations, but also the institutional-level implications and the individual behaviour need to be tackled and exploited for reaching the full benefits of the mobility programme (M. Beerkens & Vossensteyn, 2011).

Improved institutional-level processes of student mobility have therefore been addressed as a potential solution to the remaining credit recognition problems of the Erasmus programme. Such institutional-level solutions come in great variety. The European Commission provides a more general direction and encourages institutions “to build learning mobility more *systematically* into curricula, and eliminate unnecessary barriers [...] to cross-border co-operation and exchanges” (European Commission, 2011, pp. 7, emphasis added). The Leuven Communiqué nudges joint degrees and mobility windows as one of possible solutions to the credit recognition issues (“Leuven and Louvain-la-Neuve Communiqué,” 2009). Associations of universities, such as the LERU, present the necessity for more articulated international educational collaboration through ‘networked’ or ‘embedded’ types of student mobilities (de Moor & Henderikx, 2013). In general, the existing empirical analyses show the growing presence of international organizational arrangements between higher education institutions. One type of such international arrangement is the higher education consortium, whose number is constantly growing around the world (Denman, 2002). All listed examples answer the need “to address the international dimension more systematically, formally, and perhaps also selectively” (M. Beerkens & Vossensteyn, 2011, p. 49). This is necessary because European universities are facing a significant increase in student mobility cooperation.

The presented research focuses on the higher education consortium. In comparison to the bilateral, “market-type” student mobilities, it provides more systematic, formal and selective mobility exchanges. The main aim of this research is to analyse, which consortium characteristics actually contribute to better credit recognition performance of the individual higher education institutions. More specifically, it identifies which factors of structural embeddedness as well as the interrelating social mechanisms (developed within the consortium), influence the credit recognition performance. Factors of structural embeddedness and social mechanisms are therefore the independent and intermediary

variables, whereas the credit recognition performance is the dependent variable. To summarize, this research goes one step further in identifying what precisely are the elements of higher education consortium that potentially better address credit recognition performance of periods of studies abroad. The analysis is conducted on the deliberately selected case study consortium. We focus on the European Consortium of Innovative Universities (ECIU) ("European Consortium of Innovative Universities," 2013). Research data have been obtained from the official Erasmus mobility records for academic years 2007/2008 to 2011/2012.

General research question is:

How do consortium characteristics (structural embeddedness attributes with the interrelating social mechanisms) influence the credit recognition performance at the individual partner universities?

The research contributes to the higher education policy studies by theoretically explaining and practically testing, which consortium characteristics contribute to the credit recognition performance. European documents on Erasmus mobility, as well as the higher education institutions themselves, identify the potential solution to the credit recognition problems in stronger cooperation among the fewer mobility partners. However, to the best of our knowledge, there is no existing research on this matter despite the continuing call for more structured forms of student mobilities. The provided results are therefore a valuable insight into the respected topic. Based on the provided outcomes, the policy makers are able to stimulate those types of mobilities policies, which would maximize the credit recognition rates. The results from this research are beneficial also to the existing and new mobility consortia, which could further improve (or initially design) their internal network governance processes for the best credit recognition performance.

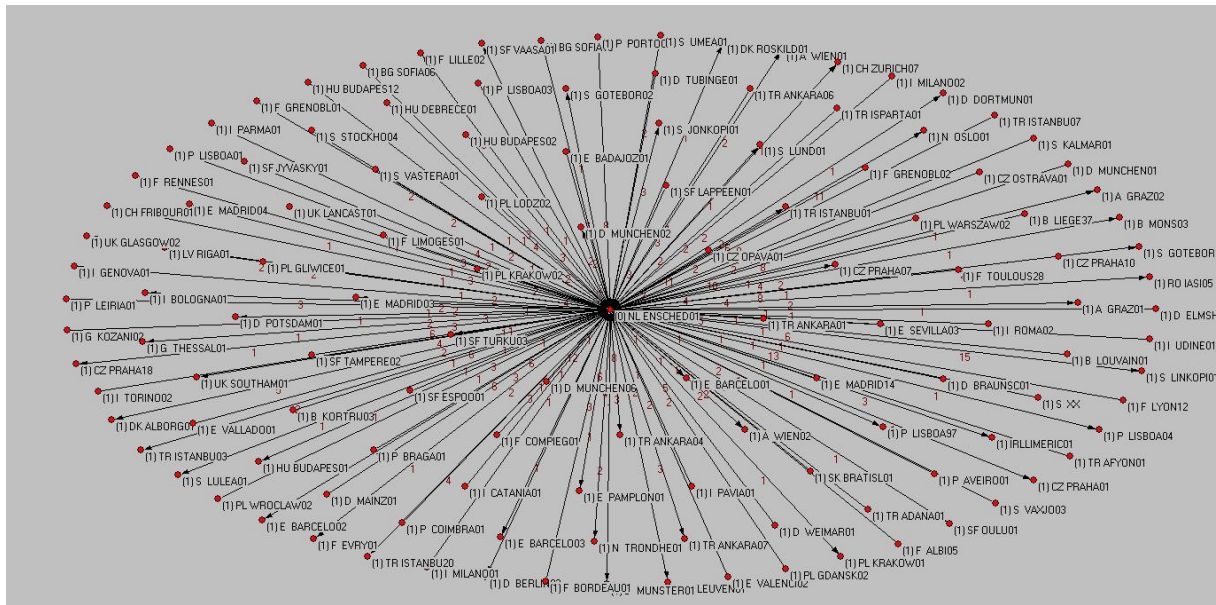
This master thesis is structured as follows. Firstly, the research object and aims of the study have been introduced. The second chapter presents all research concepts: the Erasmus Mobility Programme, the credit recognition tools, the concept of higher education consortium, and the attributes of student mobilities within the consortium. Moreover, chapter two introduces the case study consortium. In third chapter we present the theoretical framework of the research (the structural embeddedness perspective, the transaction costs economics, and the resource dependency theory). Chapter three concludes with the theoretical model. It summarizes the inter-organizational processes within the consortium (consortium characteristics) and their impact on the credit recognition performance. The fourth chapter operationalizes the set of structural embeddedness variables (independent variables), the

social mechanisms variables (intermediary variables) and the credit recognition performance variables (dependent variables) for the purposes of empirical analysis. Moreover, chapter four includes the research design section. In the fifth chapter, we provide the results of empirical analysis. The sixth chapter summarizes the research outcomes and provides recommendations for the case study consortium. Last but not least, chapter seven presents the reflections to the presented research.

2. ERASMUS STUDENT MOBILITY IN FRAMES OF THE HIGHER EDUCATION CONSORTIUM

Most Erasmus student mobilities are implemented as the bilateral agreement between two partner universities. Within this inter-organizational setting, students autonomously decide about their periods of studies abroad and the desired host institution. The home university and the host university then regulate all aspects of student's mobility by signing the individual mobility arrangement. We refer to this type of the student mobility as *the market-type mobility*, because of the student's possibility to choose from all available mobility partners at the home university. Figure 2.1 shows an example of the market-type student mobility for the University of Twente. The home university holds an egocentric position, whereas all its mobility partners are distributed around it according to the frequency of cooperation. The closer the host university is to the home university, the stronger bilateral relations these two universities hold. However, the Erasmus Programme does not limit universities to organize student mobilities only in a form of market-type, bilateral mobility exchanges. Universities around Europe implement student mobilities also by forming the closed collaborative networks of the selected partners. These networks deliberately agree upon the aim and the content of their mobility cooperation. We therefore speak of *the structured types of student mobilities*.

Figure 2.1: All Erasmus student mobility partners of the University of Twente (academic years 2007/2008 to 2011/2012)



Source: author

The aim of the presented research is to analyse the impact of structured mobility approaches on the credit recognition performance. More specifically, we focus on the characteristics of

the higher education consortium and its influence on the recognition of periods of studies abroad. By doing so, we analyse the arguments for extracting possible higher education consortia from the range of all university's partners. For instance, figure 2.1 shows not only all bilateral mobility partners of the University of Twente, but also an opportunity to rearrange these mobility partnerships in a manner, which would positively influence the credit recognition performance. One of such approaches is the implementation of the higher education consortium. We introduce one example of the higher education consortium (with the University of Twente as one of its members) in subchapter 2.4.

Collaboration networks are theoretically classified in accordance with their organizational complexity (Neave in E. Beerkens, 2004). Neave presents five different forms of cooperation arrangements, which are at the same time five different stages of the higher education network development: 1) monodisciplinary linkages, 2) exchange partnerships, 3) network partnerships, 4) multidisciplinary networks, 5) consortia. Higher education consortium is therefore the final stage of network cooperation among universities. Before presenting this concept and its attributes, we firstly introduce the Erasmus Student Mobility Programme and the existing credit recognition tools.

2.1 The Erasmus Programme and related credit recognition tools

The Erasmus Programme (European Region Action Scheme for the Mobility of University Students) is an EU Lifelong Learning Programme which started in year 1987 and enables not only student mobilities for studies and internships, but also staff mobilities, university cooperation programmes and activities with business sector.² Temporary Erasmus international student mobility is the mobility of one student for 3-12 months³ between the two universities, which are holders of the Erasmus University Charter in two different countries and mutually signed an Erasmus partnership collaboration agreement. With around 3 million participating students since the beginning of the programme and over 4000 higher education institutions involved from 33 countries (28 EU member countries and Switzerland, Iceland, Liechtenstein, Norway, Turkey) it is the largest student exchange programme in the world (Directorate-General for Education and Culture, 2013).

² In 2014, the programme changed and became part of one integrated programme, entitled Erasmus+. However, the presented research takes into account the Erasmus student mobility between the academic years 2007/2008 and 2011/2012, which was part of the Lifelong Learning Programme 2007-2013, sub-programme Erasmus Student Mobility for Studies. From 2014, student mobility is part of the Erasmus+ Programme, Key Activity 1 (learning mobility), sub-activity Individual Student Mobility in Higher Education (credit mobility) (Commission, 2013).

³ Prior to the Erasmus+ Programme, the mobility period was 3-6 months.

The Erasmus mobility programme is equipped with credit recognition tools, which enable student mobilities across the participatory member countries. However, these countries are not obliged to use the provided credit recognition mechanisms. The most commonly used credit recognition tool within the Erasmus programme is the European Credit Transfer and Accumulation System (ECTS). It is the workload valuation system, which facilitates the recognition of all types of studies. Learning outcomes from the host institution are transformed into the credits, where 1 credit ranges from 25-30 hours of student's work. After the mobility period, home universities autonomously decide, if they recognize these credits to the student. Universities use the specific recognition tools in credit recognition processes, such as course catalogues (they include information about student's workload and the learning outcomes), the ECTS Users' Guide, the Transcript of Records, and the Learning Agreement (Education and Culture DG, 2009). To summarize, the main aim of the ECTS is "the transfer of learning experiences between different institutions" (European Commission, 2013).

However, the focus of this research is on the organizational aspects of student mobility. In addition to the presented workload valuation system, we argue that structural and social characteristics of the consortium additionally support the credit recognition processes of periods of studies abroad. In the following subchapter we therefore introduce the concept of higher education consortium.

2.2 Higher education consortium

E. Beerkens (2004) defines the international higher education consortium as the specific type of institutional network, which is formed by three or more, but a limited number of members. The consortium has an indefinite time-span. Its membership is restricted to the selected organizations and based on the previous agreement with higher education partners. A consortium mission usually covers several activities (from multiple academic fields) to fulfil the individual interests of its members. Consortium activities are divided into eight different categories: information and resource sharing; expanding student and faculty opportunities; responding to environmental demands; stimulating entrepreneurship; providing program accessibility; identifying opportunities for external effectiveness; developing program quality; and facilitating the problem solving (Evans in Burley, Gnam, Newman, Straker, & Babies, 2011). Moreover, three additional characteristics define the consortium structure: integration, equity and intensity (E. Beerkens, 2004). Higher education institutions are integrated horizontally, which stresses the importance of equity relationships among all partners. Joint activities are coordinated with the specific administrative arrangements in order to support the intensity of collaboration.

The considerable level of attention is given to the governance aspect of the higher education consortium. Provan and Kenis (2007) define four key predictors of the most suitable network governance form: the need for network level competencies; goal consensus among organizations; number of participants; and the trust between organizations. Based on the listed criteria, authors assign all networks with one of the following network governance forms: the shared governance, the lead organization, and the network administrative organization (see table 2.1) (ibid.). Shared governance is the simplest form of network governance and requires no formal administrative organization. Rather, the governance tasks are distributed among all network members, who are equally committed to the daily management activities. In contrary, networks with lead organizations stress the importance of strong, vertical structures with more centralized approach to the governance. In this form of network governance, all key governance activities as well as the power is concentrated in one organization, with the justification of obtaining the most effective network cooperation results. The third network governance form is the network administrative organization (NAO). The NAO is a distinctive administrative organization, established specifically for the network governance purposes. It is placed centrally into the network. All key governance (administration and coordination) activities are therefore located in a separate entity, which is accessible by all network partners (Provan & Kenis, 2007). All three network governance forms are graphically presented on figure 2.2.

Table 2.1: The selection criteria for the most appropriate network governance form

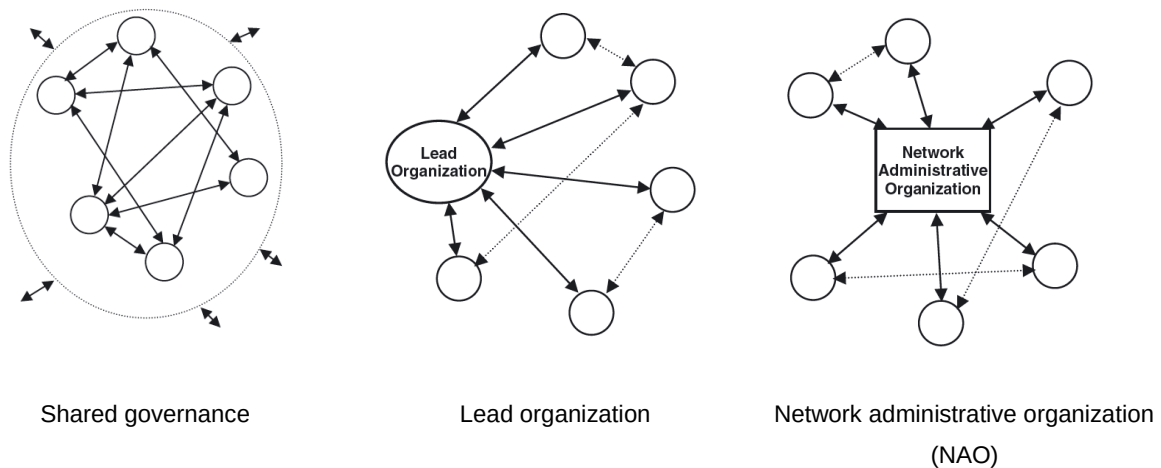
Governance forms	Trust	Number of participants	Goal consensus	Need for network-level competencies
Shared governance	High density	Few	High	Low
Lead organization	Low density, highly centralized	Moderate number	Moderately low	Moderate
Network administrative organization (NAO)	Moderate density, NAO monitored by members	Moderate to many	Moderately high	High

Source: Provan and Kenis (2007, p. 9)

According to the presented criteria, the most suitable governance form for the higher education consortium is the network administrative organization (NAO). The consortium consists of *the selected group of moderate/many participants*, which have *the clearly defined aims of cooperation* on various fields (research projects, internationalization activities, joint facilities, third mission collaboration etc.). This required from consortium *the high level of network coordination*. Such requirement is justified not only by the variety of joint activities,

but also by the complexity of the university itself⁴ and the higher education field in general. Universities are by their nature complex institutions with “a relatively enduring collection of rules and organized practices, embedded in structures of meaning and resources that are relatively invariant in the face of turnover of individuals and relatively resilient to the idiosyncratic preferences and expectations of individuals and changing environment” (Olsen, 2005, p. 5). The desired network cooperation activities contradict these relatively enduring rules and structures, because they are highly specific and quickly changing. Therefore, the consortium needs high level of partners’ coordination to implement all these activities. Moreover, universities are today not only the educational institutions neither only the research institutions. In addition to these key activities, they are required to engage strongly in third mission activities, regional and national development, the policy making etc. All these multi-level and multiple-field activities additionally strengthen the need for strong network-level competencies within the consortium. Last but not least, the decision for the network administrative organization (NAO) is supported by the fact that higher education consortium partners usually have *dense connections* among themselves. Complex scientific and research activities namely demand from partners to interact frequently among each other. The NAO form of network governance is graphically presented on figure 2.2 (the third network picture).

Figure 2.2: Three types of network governance forms



Source: Kenis and Provan (2009, p. 447)

Burley et al. (2011) define the concept of higher education consortium in the similar manner as previously presented authors. The higher education consortium is a formal, voluntary

⁴ See for instance five areas of university’s ambiguities: the ambiguity of intention, the ambiguity of understanding, the ambiguity of history, the ambiguity of structure, and the ambiguity of meaning (Pinheiro, Benneworth, & Jones, 2012).

collaboration structure of two or more higher education institutions. However, authors add one important notion to the definition of the consortium: the evidence dimension. The higher education consortium needs to provide evidence of contribution to the network activities from all included partners. Only when all network partners deliver the requested services, the opportunity is provided to them to implement university activities with lower transaction costs in comparison to the market or hierarchy. The examples of requirements within the consortium are: 1) sharing the additional information about study courses, 2) institutionalizing the additional governance rules, 3) developing the feelings of inter-organizational trust etc. Consequently, the beneficial aspects of consortium mobilities appear. One of these beneficial aspects is the better credit recognition rate. The involvement of all network members is therefore a necessary prerequisite to this research and needs to be closely considered. We turn back to the involvement (the embeddedness) of consortium partners in the following chapter.

Based on the presented theory we summarize key characteristics of the higher education consortium in a following manner: the higher education consortium is an inter-organizational, multidisciplinary network of selected partners, whose joint activities are supported by the central administrative structure and have the clearly identifiable contribution of all partners.

2.3 Attributes of student mobility within the higher education consortium

Higher education consortium has several advantages to the universities, which implement the Erasmus student mobilities. In order to form a consortium, universities need to develop a clear internationalization strategy for student mobility, and plan educational and research activities accordingly. Collaboration within the consortium namely requires complex horizontal integration of partners, who provide specific assets, not offered by any other partner universities. Moreover, geographical attributes of the international collaboration have to be set when joining or forming the new consortium. This additionally sharpens the institution's international focus. Next, universities are in a position to better understand the characteristics of incoming students (their learning outcomes) due to the limited number of mobility partners. Following this, host universities are able to valuably incorporate guest students in the ongoing research and other activities. Last but not least, the consortium supports credit recognition processes at home institutions. The presented research focuses on this beneficial aspect of the consortium. We analyse, which consortium characteristics contribute to better credit recognition performance. The explanatory model to this general research question is presented in the next chapter. The structural embeddedness characteristics and the interrelating social mechanisms provide us with an insight into the "black-box" of the consortium's beneficial aspects to the Erasmus student mobility.

However, a consortium may also negatively affect the Erasmus student mobility. Firstly, in comparison to the market-type mobility, where a host mobility institution is chosen freely by the students themselves, the consortium narrows down the variety of mobility partners. This is opposite to the preferences of students (Vossensteyn et al., 2010). Secondly, strong cooperation of limited number of partners potentially results in structural “over-embeddedness” (Uzzi, 1996, p. 684). Universities alienate from the external environment by closing down the inflow of new mobility students, teachers, researchers and ideas from partners outside the consortium. The over-embeddedness concept is presented in the following chapter. All listed negative aspects have to be taken into the account in order to comprehensively understand the analysed research question.

2.4 Erasmus student mobility within the ECIU consortium

Our research focuses on one selected higher education consortium, the European Consortium of Innovative Universities (ECIU). This consortium has been deliberately selected. We provide the justification for such decision in the research design section. In this chapter, we provide the reader with the introductory information about the ECIU. Erasmus student mobility within the selected consortium is analysed by using the official mobility records of the European Commission. The analysis focuses on five consecutive academic years from 2007/2008 to 2011/2012. In the selected period, 903831 students from 3049 higher education institutions participated in the Erasmus student mobility. The number of mobility students for the selected case study consortium is presented in table 2.2, together with the information about number of network members, cooperation paths among them, the network density and the centrality of institutions.

The attributes of student mobility flows within the ECIU consortium have been analysed with the Social-Network Analysis (SNA) and the computer programme Pajek⁵. The SNA is an analysis of a defined group or groups of actors (in our case of higher education institutions) and a relation or relations between them (student mobilities) (Wasserman & Faust, 1994). It serves as a useful statistical tool for examining and analysing social phenomena with the main goal of “detecting and interpreting patterns of social ties among actors” (De Nooy, Mrvar, & Batagelj, 2011, p. 5). For the purposes of this research we focus on network characteristics of density and centrality.

Firstly, the calculation of *network density* presents the information about the overall level of partners’ embeddedness within the network (Provan, Veazie, & Staten, 2005). It is calculated

⁵ Accessible on the following homepage: <http://pajek.imfm.si/doku.php>.

by dividing the number of actual connections among organizations with a maximum possible number of connections, therefore ranging from 0 to 1. Information about the network density is of great value to our research. It provides an assessment to what level are the structural embeddedness characteristics actually developed within the network. The theoretical model of research, presented in the next chapter, then uses the structural embeddedness and interrelating social mechanisms as the explanatory factor for better credit recognition performance within the ECIU consortium.

Secondly, we identify network partners with a high *degree centrality*. Such partners have the largest number of direct connections towards them, which signifies their activity and popularity for the Erasmus student mobilities (Hawe, Webster, & Shiell, 2004, p. 974). The list of central network members for the analysed consortium is presented in table 2.2. Such list provides the preliminary information about the potential “opinion leaders” within the consortium. Opinion leaders usually influence the development of social mechanisms and therefore need to be included in the research (more detail information about the importance of social mechanisms to our research is provided in chapter 3). Moreover, the degree centrality analysis also reveals the border members of the network, who should become more strongly engaged within the specific consortium in order to enjoy all its beneficial aspects. Their viewpoints to the functioning of the consortium are equally relevant and should as well be included in the presented research.

Table 2.2: General information about the selected consortium

Consortium	ECIU
Year of establishment	1997
Number of partners (network vertices)	11
Number of student exchanges between consortium partners from 2007/2008 to 2011/2012	573
Number of cooperation paths (lines) from 2007/2008 to 2011/2012*	53
Density**	0,48
Degree centrality partners (university number)	10 and 9

*Cooperation path is a directed connection between two higher education institutions. For instance, if both institutions send and receive Erasmus students between each other, this results in 2 cooperation paths.

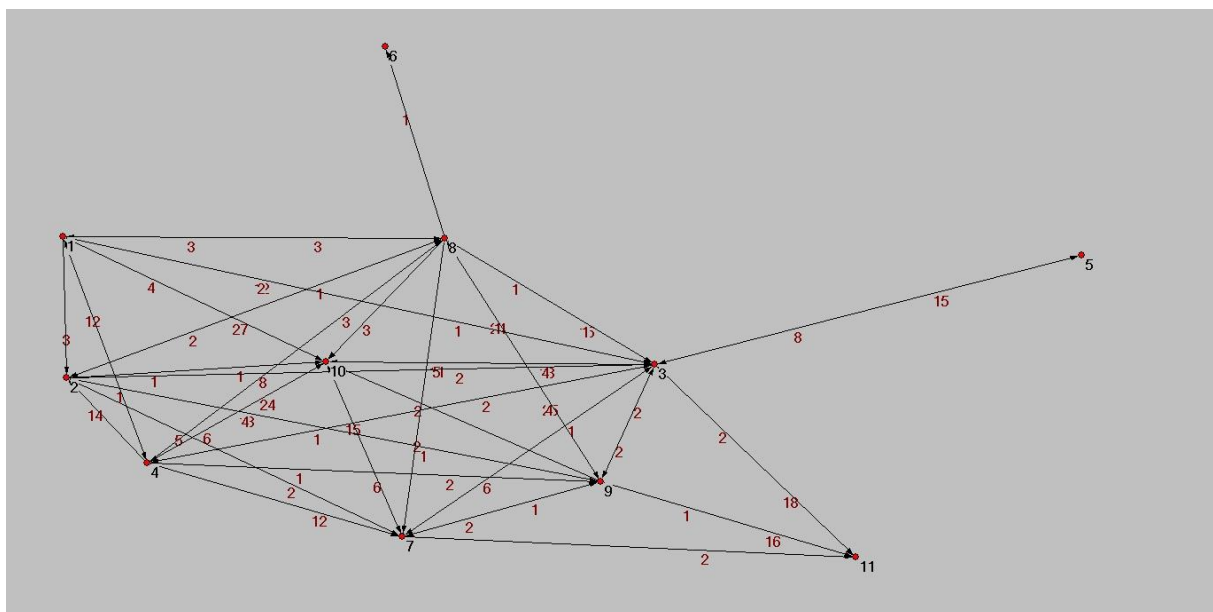
**Density for directed networks= number of cooperation paths/ $n*(n-1)$, where n means number of partners.

Before presenting the SNA analysis of the ECIU consortium, we briefly introduce basic data about the consortium itself. The ECIU partnership has been established in year 1997. It consists of eleven members, which are listed in appendix 9.1. Two additional universities are its associate members: Southern Federal University (Russia) and Tecnológico de Monterrey (Mexico). ECIU consortium organizes its activities within four core areas: the education, human resource development, knowledge triange, and the EU policy. Student

mobility is part of the educational core area ("European Consortium of Innovative Universities," 2013). SNA analysis has been performed only for the full members of the ECIU partnership, due to their eligibility to cooperate in the Erasmus student mobility programme. The results are graphically presented on figure 2.3. The figure has been drawn according to the Kamada-Kawai separate components energy. This is the specific algorithm, which optimizes each component of the network separately and afterwards places them back together (De Nooy et al., 2011).

SNA analysis shows the relatively strong density of the ECIU consortium (0,48). The majority of universities are connected into one cohesive group, as shown of figure 2.3. The central position role in the network is assigned to the universities number 10 and 9. However, the consortium includes three relatively inactive mobility members (universities no. 5, 6, 11). The representatives of both groups of network members (the relatively inactive members as well as the active network members) have to be included in the research in order to comprehensively answer the general research question. Last but not least, the network is cohesive in terms of reachability (direct or indirect), which means that no network member has been isolated from the rest of the group. Most of the ECIU universities easily reach each other directly, through bilateral relations. Only three consortium members have most of their connections indirect (universities no. 5, 6, 11). According to the presented findings we conclude that nine out of eleven universities are actively involved in the Erasmus student mobilities within the ECIU consortium.

Figure 2.3: Erasmus student mobilities within the ECIU partner universities after the Kamada-Kawai separate components energy (academic years 2007/2008 to 2011/2012)



Source: author

3. THEORETICAL FRAMEWORK

We analyse international inter-organizational arrangements between higher education institutions from the embeddedness perspective. Central to the embeddedness perspective is its linkage of the sociological as well as the economic viewpoint to inter-organizational behaviour, in our case of higher education institutions. According to Uzzi (1996, p. 674) the embeddedness refers to social relations processes which “shape economic action in ways that some mainstream economic schemes overlook or mis-specify”. Granovetter (1985) similarly stresses the importance of embeddedness in concrete inter-personal relations and inter-organizational structures (networks). Therefore, for complete understanding of the transactions (temporary Erasmus student mobilities) between universities the embeddedness perspective needs to be included into the research (see also E. Beerkens, 2004). The generalized morality or institutional arrangement is not sufficient for transaction to occur and continually perform (Granovetter, 1985, p. 490). Following this, student mobilities are analysed not only as the economic action between two universities, which are part of the same network structure. Our aim is to reveal how do social relations, formed with the cooperation of mobility partners through the consortium, influence and shape this action. However, as the provided definition of the embeddedness states, mainstream theoretical schemes also need to be taken into account for the comprehensive understanding of our research object. We use the following two mainstream economic schemes to ensure such comprehensiveness: the transaction cost economics and the resource dependency theory. Both theoretical perspectives are presented in the following paragraphs. However, according to the aims of this research, only the embeddedness perspective is then further operationalized.

3.1 The embeddedness perspective

The embeddedness is classified into four forms: structural, cognitive, political and cultural (Zukin and DiMaggio in Uzzi, 1997). We examine the structural form of embeddedness due to its connectedness to the network architecture and the related structural characteristics. Other three forms of embeddedness reflect social constructionist perspectives on the embeddedness. There are two sub-dimensions of the observed embeddedness: relational and structural (Granovetter, 1992). Relational embeddedness focuses on the quality of relations between two actors (higher education institutions) in order to fulfil the mutual needs (Granovetter, 1992).

Structural embeddedness is built upon the relational embeddedness perspective. The structure and characteristics of social ties shape the collaboration activities among all network partners. Such collaborative activities are distinctively different from the market

behaviour. For instance, they provide the foundation for fluent information sharing, which consequently enables the control of behaviour of all network members (Granovetter, 1992). Uzzi (1997) stresses the importance of behaviour between partners, such as the motivation to act differently from narrowly defined self-interest drivers (the self-interest is usually more characteristic for the market-type collaboration). Such reciprocity relations are enabled by: 1) fine-grained information transfer, 2) the trust and 3) joint problem-solving arrangements (Uzzi, 1997). Fine-grained information sharing enables the exchange of more precise information, as well as the tacit knowledge between network partners. Trust creates the opportunity to exchange services, which are usually difficult to enforce contractually (for instance the quality of education processes at partner universities). Moreover, it reduces the transactional uncertainty of exchanges between partners (Uzzi, 1996). By employing the student mobility through the consortium, universities obtain higher level of certainty to receive the appropriate academic quality for courses, which are listed in Learning Agreements. Joint problem-solving arrangements enable network members to coordinate functions of the network more efficiently. Student exchanges are adjusted and rearranged in order to provide less administrative problems with credit recognition of student mobilities. We identify all listed factors as structural characteristics, which are relevant for better recognition of study periods abroad. Jones, Hesterly, and Borgatti (1997) argue that structural embeddedness consequently causes the emergence of social mechanisms. Social control of network members is ensured with the following mechanisms: 1) the restricted access to exchanges, 2) the macro-culture, 3) collective sanctions, and 4) the reputation (Jones et al., 1997, p. 926). In the following chapter, all listed social mechanisms are fully explained and operationalized. To sum up, consortium performance is influenced by structural embeddedness factors, which are intervened by the emerging social mechanisms. A higher education consortium addresses the remaining credit recognition problems by using the beneficial aspects of the structural embeddedness and the related social mechanisms.

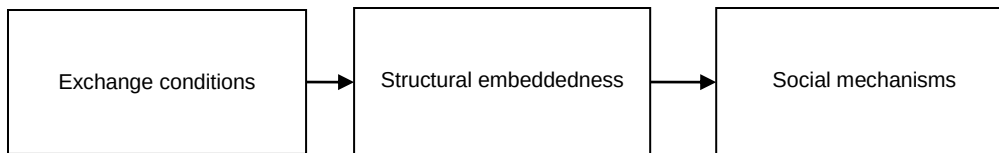
Next to the presented concept of structural embeddedness, two mainstream economic schemes are used in the theoretical framework. This enables us to provide comprehensive understanding of student mobility within the consortium. In the following two sub-chapters, we present the transaction costs economics and the resource dependency theory and connect them to the embeddedness perspective.

3.2 Transaction costs economics in the network governance

Transaction costs economics is the first theoretical framework, which explains why the specific type of transactions occurs among institutions (market, network or hierarchy type of transactions). Williamson (1975) argues that economic functions are performed under organizational structures rather than by market processes when costs of economic transactions are lower under these organizational structures. The determinants of transaction costs are the frequency, specificity, and uncertainty (Williamson, 1975). Transactions which occur frequently, are uncertain in outcome, and require specific investments, will be more likely performed under the organizational structures. Author adds two determinants that additionally explain the usage of organizational structures rather than markets. These are the bounded rationality and the opportunism of actors (Williamson, 1975). If economic actors are unable to identify all relevant aspects, which influence the transactions (due to the complexity of environment etc.), or actors behave opportunistically due to their own interest, the economic functions will be more likely performed under the organizational structure. We apply the transaction cost economics to our analysis of student mobility within the consortium. Student mobility is performed in frames of the institutional network (consortium) when costs (the recognition of study periods abroad) of transactions (mobile student) are lower in comparison to the “market-type” student mobility. The decision to implement student mobility within the consortium is therefore justified with the high intensity of mobilities (frequency), the content of transaction – student credits (specificity of transactions), the uncertainty about learning outcomes at partner institutions (uncertainty), the diversity of higher education mobility partners (bounded rationality), and the desire to perform student mobilities with higher rate of credit recognition (opportunism of actors). Jones et al. (1997) provide the connection of transaction costs economics and the embeddedness perspective in their general theory of network governance. General theory of network governance focuses on conditions, which explain why has the network governance a comparative advantage over other forms of coordination and is therefore more likely to emerge (Jones et al., 1997). Network governance refers to “select, persistent, and structured set of autonomous firms (as well as non-profit agencies) engaged in creating products or services based on implicit and open-ended contracts to adapt to environmental contingencies and to coordinate and safeguard exchanges. These contracts are socially – not legally – binding” (Jones et al., 1997, p. 914). The characteristics of consortium fit this definition, as the consortium contract is usually more socially than legally binding. Consortium partnerships are built upon long-term relationships among universities. The sense of responsibility towards partners is strongly present. Legal documents play minor role in shaping the daily work, as they provide only general information about the aims of the consortium. Authors offer the linear

explanation to the emergence of network governance. Transaction (exchange) conditions influence the emergence of structural embeddedness, which consequently provides the foundation for social mechanisms to evolve. The general theory of network governance is presented on figure 3.1.

Figure 3.1: The interaction of exchange conditions, structural embeddedness and social mechanisms in the network mode of governance



Source: Jones et al. (1997, p. 918)

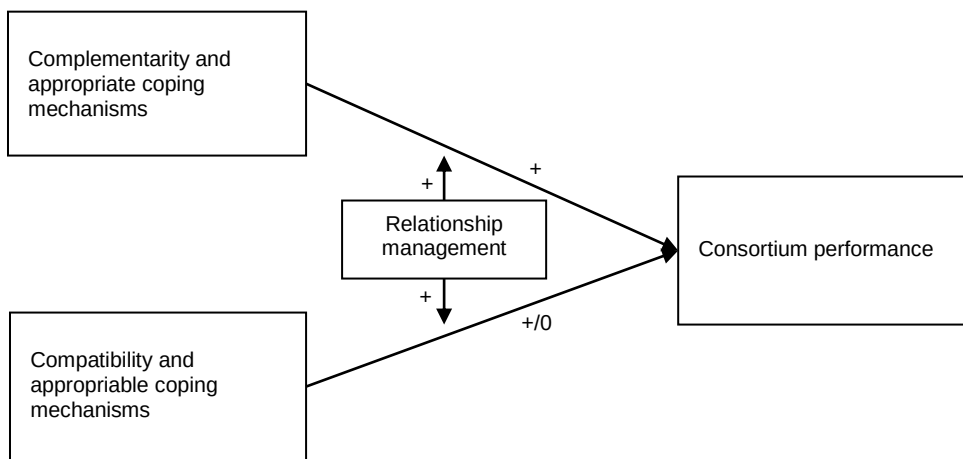
3.3 Resource dependency theory in the network governance

E. Beerkens (2004) uses the resource-based view and the embeddedness perspective to explain the organizational behaviour of higher education partners in the consortium. Based on these theoretical foundations, he identifies levels of complementarity and compatibility of partners as crucial factors which determine the performance of international consortium. Firstly, the complementarity dimension is based on the resource-based view of organizations. This view assumes that organizations within the specific sector are heterogeneous in relation to the resources they control. Every organization owns a specific set of attributes and assets which could not be found at any other organization. This heterogeneity of organizations is relatively durable due to the weak mobility of resources among them (Barney, 1991). Therefore, firms as well as non-profit organizations have to form the collaborative partnerships to complement their resources for better performance. E. Beerkens (2004) translates this approach to the higher education field. Universities form the collaborative relationships with other universities to acquire valuable new resources (knowledge, work facilities etc.). Complementarity between consortium partners then results in higher level of performance, because universities own the valuable new resources, which enable better performance (E. Beerkens, 2004). Secondly, author builds the compatibility dimension of the consortium upon the embeddedness perspective. Institutions are always embedded in cognitive, normative and regulative structures, such as the cultural and political structures (Scott, 1994). This viewpoint is necessary in the higher education context to stress the importance of university's "specific regulatory, social and cultural context" (E. Beerkens, 2004, p. 73). Higher level of compatibility between partners determines the performance of inter-organizational collaborative networks. Universities, who share the same social or cultural environment, avoid possible misunderstandings or errors in their communication with partners. Moreover, similarities among partners speed up the processes of acquaintance.

Consequently, universities focus directly on cooperation issues. However, the author claims that the relationship between the compatibility dimension and the performance is not linear. Rather, minimum level of compatibility only enables the performance of consortium. Last but not least, author introduces the relationship management function into the model. We explain the concept of relationship management in the following sub-chapter due to its specific characteristics.

The explanatory model of collaboration and coping mechanisms for higher education consortium is presented on figure 3.2.

Figure 3.2: Explanatory model of collaboration and coping mechanisms in the higher education consortium



Source: E. Beerkens (2004, p. 234)

3.4 Theoretical model of inter-organizational processes within the consortium: the identification of consortium characteristics

Based on the presented embeddedness perspective and two mainstream economic schemes we develop our own theoretical model of inter-organizational processes within the consortium (see figure 3.3). The primary theoretical framework of our model is the embeddedness perspective. The structural embeddedness of consortium members explains the consortium performance. Moreover, the consortium gradually develops the related social mechanisms, which also positively influence the credit recognition performance. The social mechanisms' dimension has already been analysed in the higher education context. E. Beerkens (2004) recognizes this dimension in his explanatory model of collaboration and coping mechanisms in the higher education consortium. However, author names it the 'relationship management' mechanism. The relationship management is defined as "the management of the relationships between people involved in consortium activities [which]

improves the effectiveness of the coping mechanisms employed” (E. Beerkens, 2004, p. 234). However, author does not further analyse what are the characteristics of the ‘relationship management’ that actually contribute to the consortium performance. Our model reveals these characteristics by using the structural embeddedness perspective and the associated social mechanisms. One additional distinction has to be stressed here when reflecting to the work of E. Beerkens (2004). The author uses a broader definition of embeddedness, where universities are networked into the cognitive, normative and regulative structures. However, for the purposes of our analysis the embeddedness dimension should focus only on its structural component. Other embeddedness dimensions (individual or national) are not relevant for the consortium-level analysis.

Next to the embeddedness perspective, we complement our model with two additional theories. This enables us to provide the comprehensive understanding of inter-organizational behaviour within the consortium. We use the general theory of network governance (Jones et al., 1997), and the explanatory model of collaboration and coping mechanisms (E. Beerkens, 2004). Both theories add valuable explanations why the consortium evolves and what are the goals it follows. Firstly, according to the transaction costs economics (the foundation of the general theory of network governance), the justification to implement student mobility within the consortium is based on the decision to lower the transaction (process) costs. These costs are based of the following factors: the frequency, the specificity of transactions, the uncertainty, bounded rationality, and the opportunism of actors. Consortium structure minimizes the costs of student mobility because of its positive influence on these listed costs categories (presented in detail in chapter 3.2). E. Beerkens (2004) confirms such approach: “consortia can be a way to institutionalise cooperation between a particular group of universities and in that way can create structures that minimise transaction costs”. We present this argumentation with the minus sign between the consortium characteristics and the institutional transaction costs (see figure 3.3). Secondly, according to the resource dependency theory (the foundation of the explanatory model of collaboration and coping mechanisms), the consortium evolves as a mean to complement the educational offer for students and to enrich their curricula. However, at the same time such “structured” type of student mobility narrows down current, “market-type” mobility options of the university. Students are offered only the selected number of partner universities (and their study courses) within the specific consortium. In comparison to the “market-type” student mobility, the sending institution becomes more dependent on the limited number of mobility partners. Our model presents this argument with the plus sign between the consortium performance and the resource dependency variable.

The presented theoretical model goes one step further and connects both listed outcomes (lower transaction costs as well as higher resource dependency of the consortium partners) back to the structural embeddedness. Successful consortium performance namely strengthens the cooperation ties among network members, who become even more embedded into the network structure. Therefore, the consortium “not only justifies, but also enables inter-firm networks as an alternative governance form” (Jones et al., 1997, pp. 922, grammatically adjusted). In our model we mark this connection with the plus sign. One important remark has to be introduced at this point. The connection back to the structural embeddedness introduces possible negative aspects of a consortium, such as the “over-embeddedness” of network partners (Uzzi, 1996, p. 684). Over-embeddedness occurs due to strong, exclusive cooperation only with the selected mobility members. Consequently, partners become interconnected up to the level when changes become too difficult and too costly to introduce. Furthermore, feelings of obligation or friendship develop, which overrule economic or other primary causes of cooperation. Universities, over-embedded with consortium partners, potentially alienate from the external environment, which results in student dis-satisfaction with the mobility choices. Moreover, it decreases student diversity in internationalization processes, as well as causes possible automatic credit recognition processes within the consortium. Automatic credit recognition appears as a result of the feelings of friendship between the consortium members. Uzzi (1996) offers a solution to this problem in a mixture of embedded and “market-type” cooperation ties.

Last but not least, we add control mechanisms to the theoretical model. Control mechanisms provide additional information about the background characteristics of the consortium members. Higher education institutions, which are members of the same consortium, for instance do not share the same network position or hold the same status within the consortium. The awareness of these control mechanisms is important because it contributes to the understanding why the individual network member is more (or less) susceptible for the consortium characteristics and consequently states better (or worse) credit recognition performance inside the consortium. Control mechanisms are therefore important despite the fact that they do not directly influence the credit recognition performance. We identify two sets of control mechanisms. The first control mechanism is the *network centrality position*. Central network members (universities with high degree centrality) are more strongly engaged in the consortium activities and consequently more receptive for the consortium characteristics. Moreover, they are the potential “opinion leaders” and creators of social mechanisms. On the other hand, border network members (network members with low degree centrality) are weakly structurally embedded into the network and are the potential followers of social mechanisms. Network centrality therefore importantly contributes to the

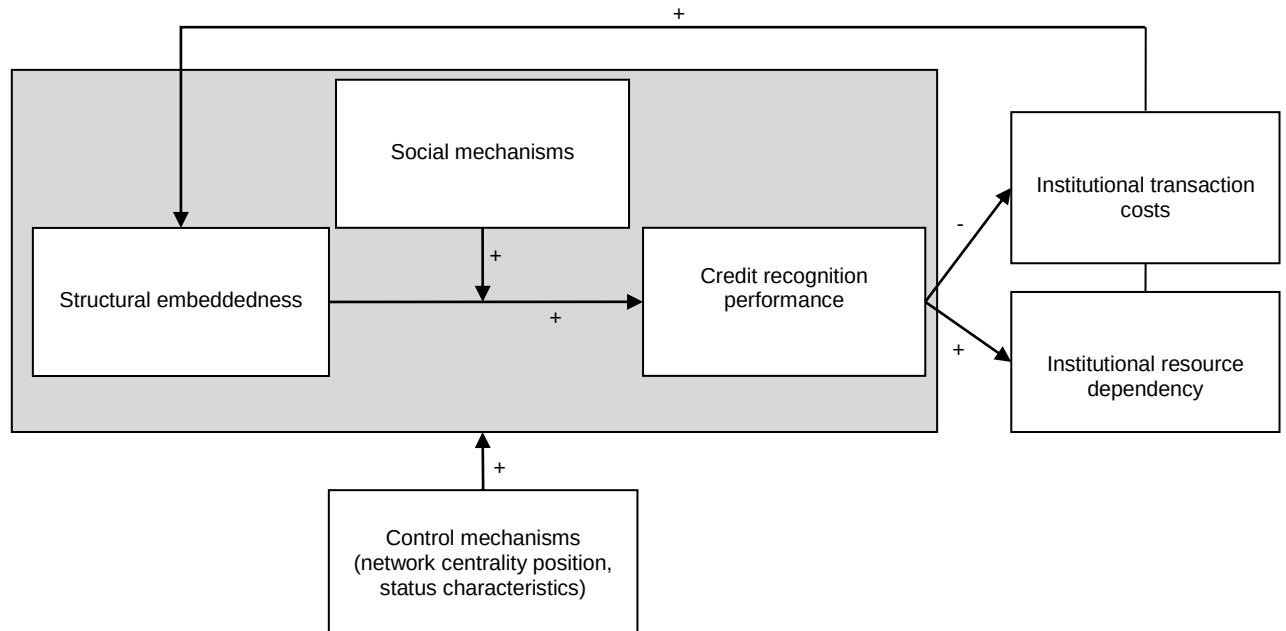
rationale of partners' functioning within the consortium. The second set of control mechanisms are *the network status characteristics*. Status characteristics are social attributes of partner's membership in the consortium (for instance being the founding member of the consortium vs. newcomer to the consortium; or holding the specific position in student mobility flows: the student importer, exporter, or balanced flow institution). This set of characteristics as well defines the rationale behind the inter-organizational processes inside the consortium, however not by providing the physical, but social positioning of each member university. The social positioning inside the network affects member universities similarly as the above presented physical positioning. Founding members are usually more embedded into the consortium activities than newcomers. Furthermore, universities, which have the more balanced student mobility flows inside the consortium, have better insight into all aspects of consortium functioning, because they receive as well as send students to the mobility partners. Two-way exchanges carry significantly more information about the cooperation partners than one-way mobility exchanges.

One important remark has to be made regarding the presented control mechanisms. Our control mechanisms refer solely to the network characteristics of the consortium members. They do not introduce any broader definition of structural embeddedness, such as the embeddedness of the universities into cognitive, normative and regulative structures (see E. Beerkens (2004)). We deliberately limit our research model to the higher education consortium and related processes inside it. Such approach follows the purpose of the research, which is an insight into the "black-box" of the higher education consortium. All additional control mechanisms (such as national policies, norms, values, culture, as well as international policies, globalisation processes etc.) would create the confusion in our research by providing little added value to it.

The presented theoretical model, which explains the impact of consortium characteristics on the credit recognition performance, is shown on figure 3.3. The model presents positive direct influence of structural embeddedness, as well as the positive intermediary effect of social mechanisms on the credit recognition performance. Due to these processes, the individual institution lowers its transaction costs of student mobility on the one side, and raises its resource dependency over the consortium partners on the other side. Furthermore, the results of the cooperation create a positive reverse link back to the structural embeddedness. Higher level of resource dependency namely inevitably strengthens the embeddedness of higher education institutions into the network. Finally, the overall impact of consortium characteristics on the credit recognition performance is positively determined by

the control mechanisms (partners' network centrality position and network status characteristics).

Figure 3.3: The impact of structural embeddedness on credit recognition performance in the higher education consortium, with the identified outcomes and control mechanisms



Source: author

To sum up, better credit recognition performance emerges due to positive impact of the following consortium characteristics: the structural embeddedness of consortium partners and the relating social mechanisms. These characteristics hold an explanatory value to our research and are therefore framed with the grey square on figure 3.3. Moreover, they are further developed into two general research hypotheses, as presented below. All identified variables within these hypotheses are operationalized in chapter 4. Chapter 5 provides the results of the empirical analysis and confirms or rejects our hypotheses.

Hypothesis 1:

If student mobility is implemented within the higher education consortium, the credit recognition performance rises due to the *structural embeddedness of consortium members* through information sharing, joint problem solving, the inter-organizational trust and the reciprocity of its members.

Hypothesis 2:

If student mobility is implemented within the higher education consortium, the credit recognition performance rises due to the *intermediary impact of social mechanisms inside the consortium*; such as the commitment, the idiosyncratic language, the restricted access to exchanges, collective sanctions, and the reputation of its members.

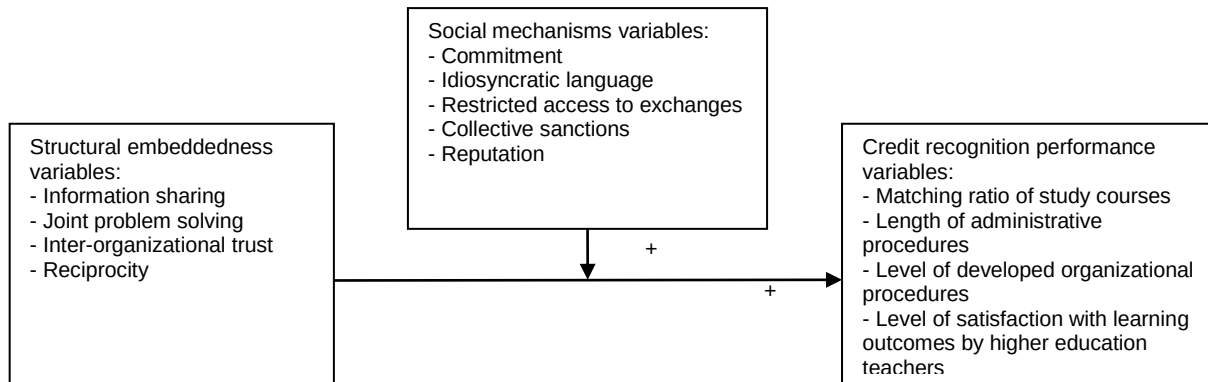
4. OPERATIONALIZATION OF THE RESEARCH MODEL

The “structured” types of student mobilities, such as the mobilities within the higher education consortium, are influenced and continuously shaped by the network characteristics. These characteristics explain better credit recognition performance within the higher education consortium. Our research framework has already unfolded the theoretical background of this correlation. The explanatory factors of better credit recognition performance have been introduced in the previous chapter. These factors are: 1) the structural embeddedness of the network partners, and 2) the intermediary social mechanisms (see the shaded area on figure 3.3). In this chapter, we further operationalize the consortium characteristics for the purpose of empirical analysis.

Consortium mobility cooperation derives from the structural embeddedness of partners. Mobility partners are embedded into the precisely defined structural relationships, which have been formalized with agreements. This notion of formalism is emphasized in the definition of consortium, as well as with the aspect of (horizontal) integration between consortium partners (E. Beerkens, 2004). Based on their embeddedness, consortium partners create specific *cooperation practices and attitudes* (such as the information sharing practices, joint problem solving practices, feelings of expectations towards partners and feelings of reciprocity). Moreover, they develop *social mechanisms*, which regulate their mutual cooperation activities (by using sanctions, rewards, or monitoring methods).

Consortium characteristics therefore consist of structural embeddedness variables as well as the social mechanisms variables. Both set of variables influence the credit recognition performance, however in a different manner. Based on our theoretical model, the structural embeddedness variables are dependent variables, whereas social mechanism variables are the intermediary variables. Together, they influence the credit recognition performance variables. The latter variables are therefore the dependent variables. The relationship between all identified variables is summarized on figure 4.1, which presents the empirical model of our research.

Figure 4.1: The empirical research model



Source: author

In following paragraphs, we describe and operationalize all three sets of variables by using the following specific research questions:

Specific research question 1:

What are structural embeddedness variables and how can we measure them?

Specific research question 2:

What are social mechanisms variables and how can we measure them?

Specific research question 3:

What are credit recognition performance variables and how can we measure them?

This chapter consists of four sections. First three sections present all three sets of variables (independent, intermediary and dependent) and operationalize them for the purpose of the empirical analysis. Every variable description consists of two parts: the general theoretical presentation of its characteristics, and the concrete operationalization, which includes the specific interview questions. All questions are then collected in one cohesive interview form, presented in appendix 9.5. The fourth section of the chapter presents the research design of the empirical analysis. The most suitable analysis approach for this research is the qualitative research. Merriam (2002) offers four decisive criteria for the qualitative analysis: 1) the necessity to gain an insight into the understanding people have regarding the analysed social phenomenon; 2) the lack of existing theoretical frameworks; 3) the requirement to obtain rich, descriptive information; and 4) when researcher is the primary instrument for the collection and analysis of data. Additional reasons for using the qualitative research methods are to discover currently unspecified relations among variables; and to understand differences between theoretical and practical outcomes of the analysed research object (Marshall and Rossman in Merriam, 2002).

The literature review shows that the concept of higher education consortium is underexplored despite its growing presence in the internationalization processes. Due to the lack of field-specific theoretical background we build our research model on the sociological concept of structural embeddedness; and its consequences on the mainstream economic theories of the transaction costs economics and the resource dependency theory. By using the qualitative approach to our research we gain the opportunity to understand the identified variables specifically in the higher education context. Therefore, we gain an insight into the “black-box” of consortium characteristics and their effect on the credit recognition performance. This is enabled with rich and precise information gathering processes, offered by in-depth qualitative analysis. Only after the specific consortium characteristics and their outcomes are narratively described with the qualitative research, we are able to use findings for further quantitative analysis of the general research question. The qualitative analysis is therefore a necessary precursor method for further, statistically generalisable results. The proposal of possible follow-up research is described in chapter 7, which presents the reflections to this study.

Moreover, we decide to use the qualitative analysis in order to get more substantive input into the research. European documents nudge for more “structured” forms of student mobilities, however without providing the examples of its practical implications in the real environment. The qualitative approach to our analysis provides deeper insight into the research object by analysing one selected case study consortium, the European Consortium of Innovative Universities. In this manner, we unfold the differences between the theoretical and practical understanding of student mobility within the consortium, and at the same time substantively explain them.

The final (methodological) reason for qualitative analysis has to be provided at this point. We decide to use qualitative approach over the quantitative due to the methodological quality aspect. Quantitative method questionnaires would require a sufficient number of responses from the academic and administrative staff, who are involved with credit recognition processes at the case study consortium. Only the sufficient number of responses would provide the statistically relevant conclusions for the entire population. However, in academic years 2007/2008 to 2011/2012 there has been only 53 cooperation paths between the ECIU consortium members, which represent an insufficient number of credit recognition processes for the quantitative analysis.

To sum up, the great value of qualitative approach to our research is in its focus on the case study consortium. We focus exclusively on the characteristics of the selected population, in our case of the European Consortium of Innovative Universities. By doing so, we gain

substantive information about the relationships between dependent, intermediary and independent variables. The aim of this research is not to generalize our findings to the populations of different consortia, but to thoroughly understand the impact of higher education consortium on the Erasmus student mobilities.

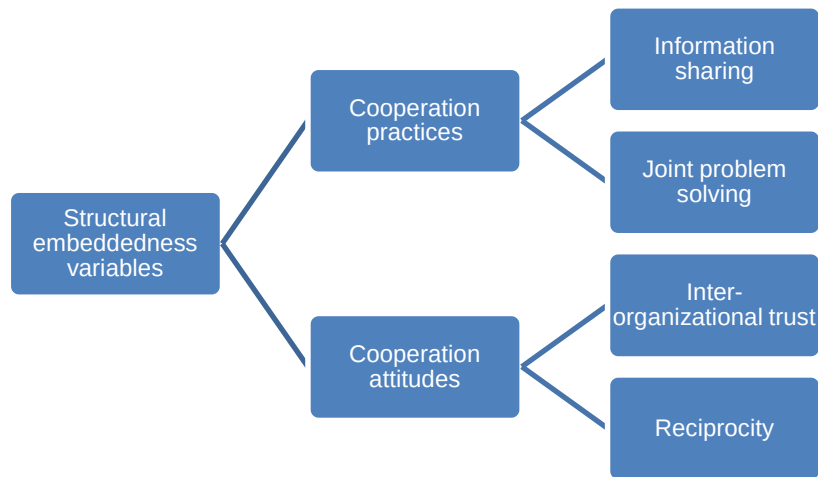
The operationalization of the identified variables does not depend solely on the selected type of analysis. In addition, it needs to take into account the characteristics of the proposed tool. We use the semi-structured interview, which enables us to gain valuable descriptive data about the theoretically identified variables. At the same time, it provides the opportunity to gain additional knowledge on currently unidentified relationships among the variables, as well as to discover possible new variables.

Last but not least, we provide technical information about the operationalization of the research variables. Interview questions are designed by using the key words and key components of variables (based on their theoretical definition). Such questions are marked with the abbreviation Q-V. Moreover, the operationalization follows the necessity to analyse the hypothetical relation between variables. Questions which measure the relationship between the independent/intermediary and dependent variables are marked with the abbreviation Q-D. All designed questions are open-ended. At the end of the questionnaire we provide the opportunity for interviewees to reflect on the respected topic. As already stated, this enables us to gain additional insight into the research object. The usage of the research tool is elaborated in the fourth section of this chapter.

4.1 Structural embeddedness variables (set of independent variables)

Structural embeddedness is defined as the specific *cooperation practices* and *attitudes*, created by consortium partners for the purposes of implementing the mutual inter-organizational exchanges. This research focuses on inter-organizational exchanges of students within the Erasmus mobility programme. The exchange practices and attitudes, which structurally embed the consortium partners, are: 1) the fine-grained information transfer; 2) joint problem-solving arrangements; and 3) the trust (Uzzi, 1997). Information sharing processes and joint problem solving are the cooperation practices, whereas the trust is an attitude towards partner organizations. We use the term inter-organizational trust to stress the inter-organizational characteristic of this variable. Next to the listed practices and attitudes, we identify the additional attitude of reciprocity as one of the structural embeddedness variables. All four identified variables are summarized on figure 4.2. We operationalize all identified variables in the following paragraphs.

Figure 4.2: Structural embeddedness variables



Source: refined from Uzzi (1997)

4.1.1 Information sharing

The first observed aspect of structural embeddedness is the information sharing. It is analysed and operationalized within the organizational learning theory. Huber (1991) lists four elements of the organizational learning: knowledge acquisition, information distribution, information interpretation, and organizational memory. We focus on the element of knowledge acquisition due to its inter-organizational dimension. The knowledge acquisition namely includes processes of obtaining the external information, relevant for the recognition of credits for periods of studies abroad.

Garvin (1993) uses knowledge acquisition processes as a theoretical framework to differentiate between the concepts of organizational learning and learning organizations. The distinguishing characteristic of the learning organization is in its focus on the systematic and intentional acquisition of the internal and external knowledge. Closed, formalized networks of higher education institutions provide more systematic acquisition of external knowledge from the mobility partners. These processes enable partners to receive more comprehensive information about the study periods abroad, primarily the additional information about study courses, listed in the Transcript of Records. More detailed information about the study courses and their learning outcomes, provided in explicit as well as tacit manner, result in better credit recognition performance.

Tacit knowledge about the learning outcomes includes specific aspects of knowledge, which cannot be codified in an explicit manner. Such uncodifiable knowledge occurs due to the lack of awareness of possessing the specific knowledge, or due to communication difficulties in expressing such specific forms of knowledge (Gertler, 2003). It is only by sharing the

common social context (values, language, culture etc.) when such type of knowledge could be shared. One of the approaches to design such environment is through “communities of practice” (Gertler, 2003). The consortium provides an example of such community of practice, and therefore gives the opportunity to attain the additional set of knowledge for credit recognition purposes.

A higher education consortium enables knowledge acquisition processes through established channels of communication (Evans in Burley et al., 2011). Communication is defined as the “formal as well as informal sharing of meaningful and timely information between firms” (J. C. Anderson & Narus, 1990, p. 1401). Schreiner, Kale, and Corsten (2009, p. 1397) similarly define communication as the credible transmission of “relevant information and knowledge to the partner”. Channels of communication take the explicit form as *structural tools and practices*, as well as through *social context mechanisms*. The European Commission has developed following standard tools, which support the European-wide communication about the study credits: the Learning Agreement, the Transcript of Records, course catalogues and diploma supplements (Education and Culture DG, 2009). Moreover, structural tools also take more specific forms. For instance, few ECIU consortium partners are included in the development of online IT tool, which will simplify the usage of ECTS Learning Agreements (HEION, 2014). Other structural tools are mobility windows and course packages. On the other hand, information sharing is provided also through social context mechanisms, which act as the carriers of tacit knowledge. Schreiner et al. (2009) name these mechanisms “the shared mental models”. Social context variables develop along the consortium functioning through time. One example of such social context variable is the idiosyncratic language, which is described in the following section together with other intermediary variables. All in all, the presented channels of communication enable the acquisition of additional knowledge about study courses, listed in the Transcript of Records. Such timely information (see the definition of communication above) shortens the duration of credit recognition processes and therefore positively influences the credit recognition performance. Existing empirical analysis confirms positive correlation between communication dimension and network performance (Schreiner et al., 2009, p. 1411).

Following this, mobility partners become ‘learning organizations’. A ‘learning organization’ is “an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights” (Garvin, 1993, p. 80). The notion of skilled organizations for knowledge acquiring is especially important for this analysis. It presents the necessary organizational condition which enables the meaningful cooperation in consortium. Higher education institutions need to be capable to as well as present the

interest in attaining the additional information for credit recognition purposes. Second notion, which derives from the concept of learning organization, is the necessary ability of behavioural modification of organizations. Internal organizational structures of higher education institutions have to be able to adopt the acquired information and transform it into the internal recognition processes for the purposes of further mobility cooperation among consortium partners. Second presented aspect provides an opportunity for a follow-up study to this research, and presented in chapter 7.

Last but not least, we make an additional remark at this point. We follow the term “information sharing” (J. C. Anderson & Narus, 1990) rather than “communication” (Schreiner et al., 2009) to name this structural embeddedness variable. Information sharing namely more clearly stresses the importance of openness of mobility partners to jointly share and use all relevant information for the mobility purposes, which is the aim and the distinctive characteristic of the mobility collaboration within the consortium. Information sharing variable is operationalized in table 4.1.

Table 4.1: Operationalization of the information sharing variable

Defining questions for the information sharing variable (Q-V)
1. In general, what types of supporting documents (such as the Learning Agreement, the Transcript of Records, course catalogues, course syllabuses) or practices (such as course packages, mobility windows), you use in credit recognition processes at your university? Are the information provided with these documents enough for credit recognition purposes? What additional information do you search for?
2. Do you use any specific documents for credit recognition when students do their mobility at the ECIU partner universities?
3. Do you share more information about study courses with the ECIU partners than with the other mobility partners? In which manner?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
4. Is the duration of credit recognition procedures shorter, the same or longer within the ECIU consortium than with other mobility partners? Why?

Variable keywords, used for the operationalization: supporting documents and practices, relevant information
Interrelation with dependent variable(s), included in the operationalization: the length of administrative procedures

4.1.2 Joint problem solving

The next factor, relevant for the analysis of the structural embeddedness within the consortium, is joint problem solving. Joint problem-solving arrangements enable network members to coordinate functions of the network more efficiently. Due to this variable, network activities are promptly adjusted and rearranged to provide less administrative problems for the individual institution (network partner) (Uzzi, 1997). We therefore refer to the joint problem solving as one of the governance processes of the higher education consortium.

The governance dimension is one of five key dimensions of collaboration processes in public management networks (Thomson & Perry, 2006). It includes joint decision making about *the rules and structures*, which are necessary for the effective and efficient work of the network.

For the purposes of this research we focus on joint problem solving approaches to the Erasmus student mobility within the consortium. Joint problem solving is ensured through the specific governance rules inside the consortium, such as the Memorandum of Understanding; the Book of Rules and Procedures on Student Mobility within the Consortium; the Rules on Establishing the Learning Agreement inside the Consortium; and requirements to share the additional information among the consortium members. These governance rules additionally form credit recognition processes at the individual consortium partner, primarily its administrative processes, which consequently results in the higher credit recognition rate. The impact of better developed organizational procedures on the credit recognition performance is explained in section 4.3.3. Based on the provided findings we operationalize the joint problem solving variable as presented in table 4.2.

Table 4.2: Operationalization of the joint problem solving variable

Defining questions for the joint problem solving variable (Q-V)
1. In general, what organizational rules (such as the Memorandum of Understanding; the Book of Rules and Procedures on Student Mobility; the Rules on Establishing the Learning Agreement) do you use at your work for the Erasmus exchange?
2: What organizational rules that we have listed, or additional ones are provided by the ECIU headquarters? What do they define regarding the student mobility?
3. Do you use these consortium organizational rules in the credit recognition procedures at your university?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
4. With these additional rules, are (would) your procedures for credit recognition (be) less, equally or more developed?
Variable keywords, used for the operationalization: organizational rules and procedures, the ECIU headquarters, the difference and content of rules and procedures
Interrelation with dependent variable(s), included in the operationalization: the level of developed organizational procedures

At this point we need to shortly reflect on the characteristics of the governance processes in collaborative networks. These characteristics are highly relevant for the further analysis of this variable, because they identify possible relations with the dependent variable (primarily the organizational aspect of the credit recognition procedures and its level of development). Thomson and Perry (2006) list four specific characteristics of governance processes in collaborative networks, as it follows: networks have no hierarchical structure; the awareness of participant institutions to reach governance agreements is strongly present, as well as the necessity to implement these agreements in their own institutions; all included partners recognize the interests of others; and last but not least, there is a mutual understanding of necessary information sharing, negotiations and mutual respect between network partners (Thomson & Perry, 2006). The important role in governance processes is also played by the network administrative organization (NAO), which is an integral part of each consortium and has already been presented in chapter 2. Among others, the NAO keeps network partners alert to the jointly developed rules of governance and regulates the development of new ones.

4.1.3 Inter-organizational trust

Inter-organizational trust is defined as “the extent of trust placed in the partner organization by the members of a focal organization” (Zaheer, McEvily, & Perrone, 1998, p. 142). Higher education institutions, which are members of the specific consortium, develop specific relational attitudes towards other consortium members due to their embeddedness in the same cooperation structure. Inter-organizational trust is a form of such relational attitude, which develops as a consequence of institutionalized practices and routines between network partners. In order to understand and operationalize the concept of inter-organizational trust we need to unfold its two elements: *the relational dimension of trust* and *the inter-organizational nature of trust*. Together, the trust positively, and more importantly directly, correlates with performance (Gulati & Nickerson, 2008; Zaheer et al., 1998).

Formulation of the relational trust is defined as “the expectation that an actor can be relied on to fulfil obligations, will behave in a predictable manner, and will act and negotiate fairly when the possibility for opportunism is present” (Zaheer et al., 1998, p. 143). The presented definition consists of the following components: reliability, predictability, and fairness (Zaheer et al., 1998). *Reliability* and *predictability* components have been used in the operationalization of this variable.

Reliability component is built of two elements. Mobility partners are trustworthy when out-sending higher education institutions are confident that the receiving institutions will fulfil *organizational* as well as *academic obligations* of the Erasmus student mobility. The underlying assumption is that the reliability component of trust is more present between the consortium mobility partners than other partners because the desired level of fulfilling mutual obligations is formally, as well as often informally agreed within the consortium (we identify informal characteristics of the consortium functioning in chapter 2). Regarding the organizational obligations, mobility partners within the consortium feel more obliged than other partners to fulfil the obligations as set in the Learning Agreement. Consequently, the matching ratio of study courses between the Learning Agreement and the Transcript of Credits is higher, which has a positive influence on the credit recognition processes within the individual institution. Academic aspects of reliability also positively influence the credit recognition processes. More adequate level of academic knowledge is provided with the careful selection of consortium partners, which increases the level of teachers' satisfaction with the learning outcomes.

Predictability component stresses the continuity dimension of relationships between the mobility partners in providing organizational and academic obligations. Consequently, consortium mobility partners are in a position to recognize credits for periods of study abroad without constant full-scale verifications of mobility partners, which shortens the length of administrative procedures for the credit recognition. Last but not least, the trust dimension consists also of the fairness component, which has not been used in the operationalization of this variable. The fairness component of the trust refers to the equal attitude towards the affected mobility partner when being compared to other mobility partners, which is not relevant for the credit recognition processes.

Next to the presented trust components we need to unfold the inter-organizational nature of trust in order to correctly operationalize the discussed variable. The multi-level nature of trust consists of *inter-personal* and *inter-organizational dimension* (Zaheer et al., 1998). Initially, it is an individual-level concept, which is then translated into the organizational dimension, however not as a simple aggregate of inter-personal trust, but reflecting the social context in which it is being applied (Zaheer et al., 1998). Therefore, our analysis focuses on the structural aspects of trust between two higher education institutions, which develops due to the involvement of both mobility partners in the same structure. The personnel, which is included in the interviewing, is asked to reflect upon the inter-organizational dimension of trust of their institution towards the other mobility partner institution. The translation process from inter-personal to the inter-organizational dimension of trust is best illustrated by using the Giddens (1979) theory of structuration, where inter-personal trust acts as an action and inter-organizational trust as the structure. It is possible to observe this phenomenon because the translation processes from inter-personal to inter-organizational trust are not one-directional. Individual trusting attitude (in our case of credit recognition personnel) is able to reflect the inter-organizational trust (Kroeger, 2012).

Based on the presented theoretical foundations we operationalize the inter-organizational trust variable as presented in table 4.3.

Table 4.3: Operationalization of the inter-organizational trust variable

Defining questions for the inter-organizational trust variable (Q-V)
1. In general, do mobility partners deliver study courses as promised in the initial Learning Agreement?
2. What percentage of all courses from the initial Learning Agreement is successfully completed?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
3. Is this percentage lower, the same or higher when student performs his or her Erasmus exchange on some of the ECIU partners? Why?
Defining questions for the inter-organizational trust variable (Q-V)
4. Now let us focus on the education quality of the study courses, taken by students during their Erasmus exchange. In general, is the level of good quality?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
5. Do you think the education quality is lower, the same or higher at the ECIU partners? What do you think is the reason for this?

Variable keywords, used for the operationalization: delivery, study courses, completion, education quality, the Learning Agreement, the Transcript of Records
Interrelation with dependent variable(s), included in the operationalization: matching ratio of study courses, the level of satisfaction with learning outcomes

An additional remark to inter-organizational trust has to be presented in this section for the purposes of further data analysis. Organizations are fundamentally unwilling to share their resources among the external partners. Similar observations have been acknowledged in the higher education environment. Universities are rarely able to share and transfer the knowledge about educational and other processes (Dill, 1999). However, knowledge and control, provided by network governance, stimulates the evolution of trust relations, which consequently enables the sharing processes among the consortium partners. Especially important in these processes is the notion of strong mutual relationship of all three factors: trust, knowledge and control (Sydow & Windeler, 2003). Only the presence and inter-connection of all three factors together results in the beneficial aspects of trust, in our case the better credit recognition performance. We use these findings to theoretically confirm the necessity of intermediary social control mechanisms, which have been included in our research model and are explained in the following section.

4.1.4 Reciprocity

Thomson and Perry (2006) identify five key dimensions of collaboration processes in public management networks: governance, administration, organizational autonomy, mutuality and norms. The norms dimension consists of trust and reciprocity. Reciprocity has been defined as one of ground characteristics of the consortium (see chapter 2) and is therefore presented as our fourth independent variable. It provides evidence of contribution of all partners to network activities (Burley et al., 2011). Evidence of work play important role in ensuring the consortium performance by all involved partners, as it stimulates the preparedness to interact collaboratively. Such preparedness evolves only if other partners demonstrate the same willingness (Thomson & Perry, 2006). In case of the Erasmus student mobility, mobility

partners demonstrate a willingness to perform precisely as agreed in the Learning Agreement only if their mobility partners demonstrate the same willingness for their outgoing Erasmus students. Mobility partners are therefore prepared to cover possible additional costs of teaching activities because they expect their mobility partners to equalize these costs with the same benefits over the time “out of a sense of duty” (Thomson & Perry, 2006, p. 27). Institutions, partners of the consortium, implement study courses as listed in the Learning Agreement even with less students than the usual norm. Consequently, the matching ratio of study courses listed in the Learning Agreement with the Transcript of Records increases, which is one of the aspects of better credit recognition performance (see section with the operationalization of dependent variables).

The second aspect of the reciprocity refers to the number of courses offered to the Erasmus mobility students. Partner institutions which are part of the same consortium collaboratively provide the stable selection of study courses due to the formal and informal agreements, as well as due to more balanced ratio of the incoming and outgoing mobility students between the institutions. Consequently, the opportunity to implement the study courses as listed in the Learning Agreement increases. All in all, the operationalization of the reciprocity variable is presented in table 4.4.

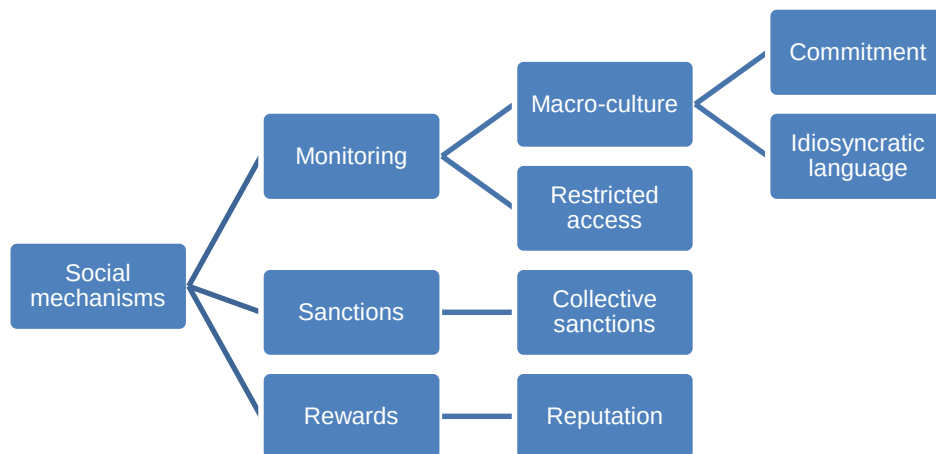
Table 4.4: Operationalization of the reciprocity variable

Defining questions for the reciprocity variable (Q-V)
1. Do you provide study courses for Erasmus students (as listed in the Learning Agreement) even if the number of students for these study courses is lower than the norm at your university?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
2. Would your decision be anyhow different for Erasmus students from the ECIU partners? Why?
Defining questions for the reciprocity variable (Q-V)
3. Now let us focus on study courses offered to the Erasmus students. How does your university decide which study courses will be offered to the Erasmus students?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
4. Is the number of study courses, which are offered to the Erasmus students lower, the same or higher for students from the ECIU partners? Do you make and difference between the Erasmus students in this respect?
Variable keywords, used for the operationalization: number of students per one study course, number of study courses offered, the Learning Agreement
Interrelation with dependent variable(s), included in the operationalization: the matching ratio of study courses

4.2 Social mechanisms' factors (set of intermediary variables)

Consortium partners are affected not only by cooperation practices and attitudes due to their embeddedness in the consortium structure, but also by intermediary social mechanisms, which evolve during the network functioning. Social mechanisms regulate joint activities continually by using sanctions, rewards, or monitoring methods. Jones et al. (1997) identify the following social mechanisms: collective sanctions, the reputation, macro-culture, and the restricted access. In the presented section, all listed social mechanisms are operationalized in order to reflect the characteristics of the higher education field. Moreover, we break the macro-culture dimension into two separate variables: the commitment and the idiosyncratic dimension of language. Both identified variables are relevant for the analysis of social mechanisms. All factors are summarized on figure 4.3.

Figure 4.3: Social mechanisms variables



Source: refined from Jones et al. (1997)

4.2.1 Macro-culture

Macro-culture is “a system of widely shared assumptions and values, comprising industry-specific, occupational, or professional knowledge, that guide actions and create typical behaviour patterns among independent entities” (Jones et al., 1997, p. 929). Three macro-culture elements support the coordination of network partners and the reduction of credit recognition problems at the individual partner institution: the ‘convergence of expectations’ between network members; idiosyncratic language inside the network; and the specific, tacitly understood rules for acting (Jones et al., 1997). We identify first two elements as relevant for our research. Both variables are presented in the following sections.

4.2.1.1 Commitment

The first relevant aspect of macro-culture is the ‘convergence of expectations’ between network members. It represents partners’ commitment to follow the goals of the network. The commitment variable could be also placed within the group of structural embeddedness factors. The consortium is namely built upon the existing (usually strong) cooperation linkages among higher education partners. However, by identifying the commitment as one of social mechanisms factors, we stress the relevance of commitment in day-to-day activities within the consortium. Commitment is not a static dimension, but rather a dynamic one. In case of student mobilities, the basic approach to present the university’s commitment to consortium activities is to advise students to participate in the Erasmus Programme within the consortium network. Secondly, we define commitment as a characteristic of macro-culture, which develops gradually and continuously between consortium members (Burley et al., 2011), similarly as an idiosyncratic language and other intangible network characteristics.

We define commitment as a “long-term orientation toward the relationship – a willingness to make short-term sacrifices to realize long-term benefits from the relationship” (E. Anderson & Weitz, 1992). First of all, this social mechanism enables higher education partners to hold confidence in other partners that student mobility will be implemented in accordance with the Learning Agreement. Commitment therefore intervenes the organizational reliability of the consortium partners (see the trust variable above). Moreover, the second part of the commitment definition reveals the connection with the reciprocity variable. Commitment requires from universities to make short-term sacrifices (costs) in order to provide the requested list of study courses, as agreed between the consortium members, as well as to implement study courses even if the number of students per course is lower than the demanded institutional norm. Both identified commitment dimensions reveal the key attribute of the commitment variable, which is its long-term characteristic. Institutions are willing to act as committed (reliable and reciprocal) mobility partners only because they are aware of its long-term benefits. The long-term advantage of the “structured” student mobility is the constant high level of credit recognition performance, ensured due to the high matching ratio between the study courses of the Learning Agreement and the Transcript of Records. The positive impact of commitment on performance has been extensively analysed in inter-organizational relationships (E. Anderson & Weitz, 1992; Rodríguez del Bosque Rodríguez, Collado Agudo, & San Martín Gutiérrez, 2006). The commitment variable has been operationalized in table 4.5.

Table 4.5: Operationalization of the commitment variable

Defining questions for the commitment variable (Q-V)
1. In general, how often do you decide to sign the Learning Agreement in order to maintain the partnership relations with the mobility partner, even if this would present additional costs to your university (because of the increased workload of teachers for instance)?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
2. Does this happen less often, the same or more often for student mobilities with the ECIU partners?
Defining questions for the commitment variable (Q-V)
3. In case you cannot offer the desired study courses, do you generally help mobility students to adjust the Learning Agreement? How?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
4. Is this help provided less often, the same or more often for students, which come from the ECIU partners?
Defining questions for the commitment variable (Q-V)
5. Now let us turn to another aspect of commitment. How often do you recommend your students to go to the specific host university: never, sometimes, often or always?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
6. How often do you recommend potential Erasmus students to go to the ECIU partners: never, sometimes, often or always?

Variable keywords, used for the operationalization: maintenance, partnership, adjustment, the Learning Agreement, recommendation, specific host university

Interrelation with dependent variable(s), included in the operationalization: the matching ratio of study courses

4.2.1.2 Idiosyncratic language

Idiosyncratic language has already been mentioned in this chapter. We presented its relevance for the information sharing processes. In this paragraph we further unfold the characteristics of idiosyncratic language for the purposes of operationalization. Idiosyncratic language is the second relevant element of macro-culture, which explains the consortium functioning. Communication channels between consortium partners take the explicit form of *structural tools* (for instance word phrases or IT tools). Moreover, the communication is provided also through *social context mechanisms*. One of these social context mechanisms is the idiosyncratic dimension of language. The term idiosyncratic language is defined as the specific type of language, particular to the limited group of people or institutions. The processes of idiosyncrasy enrich (upgrade) each word or word phrase with the additional meaning, which reflects the user and the social context in which it is being produced. Idiosyncratic language enables implicit knowledge sharing (Nonaka, 1994). Through this idiosyncratic dimension of language, network partners summarize complex information and work routines (Williamson, 1975). Consequently, such provision of additional information as well as its efficient (tacit) form, understood only to the other network members, positively influences the network performance. In case of student mobility within the consortium, the idiosyncratic dimension of language carries additional, tacit information about the mobility partners, primarily about the learning outcomes of the study courses, listed in the Transcript of Records. Such additional information positively influences credit recognition performance because it shortens the processes of information gathering. The idiosyncratic language is operationalized in table 4.6.

Table 4.6: Operationalization of the idiosyncratic language variable

Defining questions for the idiosyncratic language variable (Q-V)
1. How long does it take you to prepare the Learning Agreement from the beginning until the signature?
2. Does it take shorter, the same or longer for Erasmus exchanges with one of the ECIU partners? Why?
3. How often does it happen that you need to contact partner university for additional information (about study courses, course syllabuses etc.) before signing the Learning Agreement?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
4. Do you request or search for additional information less often, the same or more often for student exchanges with one of the ECIU partners?

Variable keywords, used for the operationalization: preparation, the Learning Agreement, role of the host university, contact before signature of the Learning Agreement

Interrelation with dependent variable(s), included in the operationalization: the length of administrative procedures

4.2.2 Restricted access to exchanges

Jones et al. (1997) identify the restricted access to network exchanges as one of the social mechanisms factors. Due to the restricted access, partners are easier to monitor, which results in “reducing transaction costs and the danger of becoming the victim of opportunistic behaviour” (ibid., p. 928). Student mobility within the consortium restricts the number of mobility partners, available for Erasmus student exchanges, which provides easier mutual monitoring among them. With such restriction in place, mobility partners are able to better monitor the learning outcomes, provided to their students during the Erasmus mobility. Restricted access to exchanges is therefore an additional monitoring mechanism of the consortium (next to the already presented variables of macro-culture). Moreover, the restricted access to exchanges is also a structural characteristic of the consortium (the consortium is by definition a closed network of institutions, see chapter 2). We therefore identify this variable as an intermediary variable to the joint problem solving, which is built upon the same ground characteristic of the consortium (the governance rules and procedures). The restricted access for mobility exchanges is a necessary structural condition for clearly developed credit recognition organizational procedures to evolve. Home institutions, which have carefully selected mobility partners and are able to monitor the learning outcomes of the outgoing students more easily, are consequently also able to recognize study credits more automatically. Both presented variables (the independent and the intermediary one) therefore together influence the level of developed organizational procedures for credit recognition at the individual mobility partner. Based on the presented underlying assumptions we operationalize the variable as presented in table 4.7.

Table 4.7: Operationalization of the restricted access to exchanges variable

Defining questions for the restricted access to exchanges variable (Q-V)
1. How do you get more detailed description about the study courses of partner universities (for instance via e-mail, website of partner universities, printed material – presentation brochures etc.)? How does your university provide such information to other Erasmus partners?
2. Do you get more detailed description of study courses anyhow different from the ECIU members?
3. Do you have more automatic credit recognition procedures for universities, for which you are more familiar with the study courses?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
4. Are credit recognition processes less automatic, the same or more automatic when students perform an Erasmus exchange at one of the ECIU partners? Why?

Variable keywords, used for the operationalization: detailed study course description, type of delivery, automatic credit recognition procedures

Interrelation with dependent variable(s), included in the operationalization: the level of developed organizational procedures for credit recognition

4.2.3 Collective sanctions

Collective sanctions are restriction measures among network members, which safeguard exchanges because they provide rules of acceptable behaviour (Jones et al., 1997). Members who break network norms and values risk being faced with sanctions, such as the gossip, rumours or sabotage. Rumour is “the talk that is unsubstantiated by [...] evidence or [...] truth” (Michelson & Mouly, 2000, p. 339). Gossip differs to the extent that it usually includes elements of factuality (Michelson & Mouly, 2000). Sabotage presents the intentional action to weaken the position of the particular network member who does not follow the preferred behaviour. For the purposes of our research we focus on gossip and sabotage. These social control mechanisms present consequences to the misbehaviour of consortium partners. The identified collective sanctions (gossip and sabotage) also provide rules of acceptable administrative and academic functioning for all mobility partners. Examples of acceptable administrative functioning include prompt delivery of intermediate and final Erasmus mobility documents (such as signed Learning Agreements, Transcripts of Records, course syllabuses for credit recognition purposes etc.); the accessibility of the personnel for the interim communication; and the administrative help being provided to the student in case of changes of the Learning Agreement. The acceptable academic functioning refers to the quality in education.

With such control elements in place, mobility partners safeguard the Erasmus mobility exchanges. No consortium partner namely wishes to be faced with the gossip of weak administrative or academic performance, or being excluded from the consortium. One important additional remark has to be made regarding the collective sanctions. Mobility partners have to meet and communicate regularly for collective sanctions to occur and have an effect in day to day activities. For instance, the ECIU consortium has developed a Student Mobility Working Group which enables partner universities to communicate among

themselves about the relevant Erasmus mobility issues ("European Consortium of Innovative Universities," 2013).

Collective sanctions reflect the administrative as well as academic functioning of consortium members, which therefore influences all credit recognition performance variables of this research (see section 3 of this chapter): study course matching ratio between the Learning Agreement and the Transcript of Records (the administrative dimension); the length of administrative procedures (the administrative dimension); the level of developed organizational procedures (the administrative dimension); and the level of satisfaction with learning outcomes by higher education teachers (the academic dimension). Moreover, collective sanctions continuously reflect upon the existing level of administrative and academic functioning of network partners. We therefore speak of their intermediary role, which is operationalized with the following open-ended interview questions, as listed in table 4.8.

Table 4.8: Operationalization of the collective sanctions variable

Defining questions for the collective sanctions variable (Q-V)
1. In general, what sanctions do you use in case of insufficient administrative and academic performance of the mobility partners (the exclusion from further mobilities, gossiping to other mobility partners, the exclusion from information sharing etc.)?
2. How often do you communicate with mobility partners about the performance of other partners?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
3. Is the information about weak performance less accessible, the same or more accessible between the ECIU mobility partners?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
4. In your daily work on credit recognition, does the information of weak administrative or academic performance play any role on your work? How?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
5. Let us now focus only on the Erasmus exchange with the ECIU consortium members. Do you think this type of information is less relevant, the same or more relevant? Why?

Variable keywords, used for the operationalization: types of sanctions, communication about the performance with other mobility partners, the role of sanctions in day to day activities

Interrelation with dependent variable(s), included in the operationalization: extended influence on all credit recognition performance variables (we use the inductive approach to identify all possible influence of this variable on the dependent variables)

4.2.4 Reputation

Reputation is "an estimation of one's character, skills, reliability, and other attributes important to exchanges" (Jones et al., 1997, p. 932). For the purposes of this research we focus on the institutional reputation. Safeguarding of the institutional exchanges (in our case student mobilities) is provided by the necessity to protect institution's reputation, or "the image [...] it has in the eyes of others" (Van Vught, 2008, p. 169). In higher education environment, the admiration and respect of work is a highly relevant characteristic of reputation (Finch, McDonald, & Staple, 2013). Therefore we add the admiration and respect dimension to our analysis of the reputation.

Higher education institutions, which are partners of the same consortium, continually provide the mutually agreed level of education quality (learning outcomes) in the Erasmus exchange programme due to their desire and necessity to protect the image they have in the eyes of other consortium partners. This underlying assumption therefore serves as a monitoring social mechanism of consortium functioning. The continuing provision of the agreed learning outcomes strengthens the satisfaction between higher education teachers, who teach recognized study course at home institution. Empirical research shows that teachers are often involved in credit recognition processes at home institutions (Dicle et al., 2010). Their satisfaction with study course at hosting institution is highly relevant for positive credit recognition at sending institution. Consequently, reputation serves as an intermediary variable between the inter-organizational trust variable (its academic reliability dimension) and the level of satisfaction with the learning outcomes (dependent variable). Based on the identified correlation we present the operationalization of the reputation variable in table 4.9.

Table 4.9: Operationalization of the reputation variable

Defining questions for the reputation variable (Q-V)
1. How often do you recognize study credits based also on the image of the mobility partner in your eyes?
Explanatory questions, which analyse the relation towards the dependent variable (Q-D)
2. Does this happen less often, the same or more often when the Erasmus exchange is made with one of the ECIU partners?

Variable keywords, used for the operationalization: partner image in the eyes of the home institution

Interrelation with dependent variable(s), included in the operationalization: the level of satisfaction with learning outcomes

Hereby we add one additional remark to the presented reputation variable. The focus of this research is not the reputation of higher education institutions as represented through their international ranking positions. Global rankings are the nearest global representation of reputation regardless of their imperfect methodology and critical acknowledgment in academic world (Simpson, 2011). However, this research focuses on the inter-organizational aspect of reputation, as perceived among the identified consortium members. Such viewpoint is not equal to more general reputation measurement as provided by international rankings.

Next to the presented variables, the additional open-ended questions have been designed for possible discovery of other structural embeddedness factors of social mechanisms factors. The semi-structured interview structure enables us to use such approach

Table 4.10: Concluding questions for the discovery of possible additional variables

Concluding questions
1. After having discussed the identified topics, would you like to additionally comment on them? 2. Do you want to address any other issue regarding the credit recognition processes at your university or the partnership in mobility networks? 3. What role would you say has the ECIU consortium and its services on your daily work? 4. What do you think are the advantages of doing the Erasmus student mobility inside the consortium, from your perspective? 5. If I were your Erasmus student, coming back from one of the ECIU partner universities, in which manner would my credit recognition processes be different from other mobility students?

4.3 Credit recognition performance variables (set of dependent variables)

This section presents the outcomes of consortium performance, related to the Erasmus student mobility. More specifically, we focus on indicators of the credit recognition performance. Each identified indicator of the credit recognition performance is a separate variable, influenced by direct (structural embeddedness factors) or indirect (social mechanisms) consortium characteristics. The aim of this research is to analyse whether and how are these variables influenced by the previously identified consortium characteristics. The evaluative criterion of credit recognition processes is the level of achieving the full academic recognition of credits, which have been obtained during the periods of studies abroad. The Erasmus University Charter acknowledges full recognition of periods of studies abroad as one of the main purposes of student mobility ("The Erasmus University Charter," 2014). However, there is no common definition of full recognition. This research follows the definition as provided by the Erasmus Student Network PRIME Study in year 2010 (Dicle et al., 2010). According to this research, the full recognition is a condition when "all the credits earned during the exchange and that were originally present in the final version of the Learning Agreement are recognized by home university without the need to take any further courses or exams" (Dicle et al., 2010, p. 61). We therefore define credit recognition performance of the individual consortium partner in relation to the level of achieving the full recognition. For these purposes, we identify *administrative* and *relational attributes* of credit recognition performance.

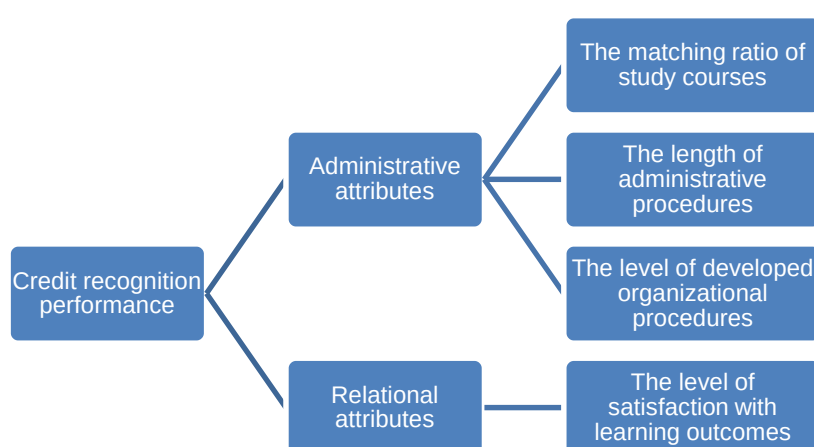
Credit recognition performance consists of administrative attributes on the one side and the relational attributes on the other side⁶. We claim that credit recognition performance depends not only upon better administrative procedures, but also upon the attitude (relation) of higher education teachers towards the education quality (the learning outcomes), which then reflects in study credits. All identified attributes influence the attainment rate towards the full recognition. Moreover, the identified attributes represent different variables of the credit recognition performance. The administrative attributes of credit recognition performance are represented with the following variables: 1) the matching ratio of study courses between the Transcript of Records and the Learning Agreement; 2) the length of administrative procedures of credit recognition processes; and 3) the level of developed organizational procedures of credit recognition processes. The relational attribute of credit recognition performance forms the following performance variable: the level of satisfaction with learning

⁶ We intentionally deviate from the term "characteristics" and rather use the term "attributes" when describing the credit recognition performance variables. The term »characteristics« has already been used in this research and refers to the structural embeddedness variables and the related social mechanisms.

outcomes by higher education teachers. All four variables are described and operationalized in the following paragraphs. Figure 4.4 graphically summarizes the identified variables.

One important remark has to be provided before presenting the description of dependent variables. We focus on the perceived dimension of credit recognition performance. Such approach is common in organizational, management and marketing disciplines, when the information about actual performance is not available due to the confidentiality or complexity of data collection (Beugelsdijk, Koen, & Noorderhaven, 2009; Fiala, Prokop, & Živělová, 2012; Schreiner et al., 2009; Zaheer et al., 1998).

Figure 4.4: Credit recognition performance variables



Source: author

4.3.1 Study courses matching ratio

The first identified performance variable is derived directly from the definition of full credit recognition (see above). Higher matching level of study courses, which have been initially listed in the Learning Agreement before the start of the student's mobility, and the Transcript of Records, brought by student after the mobility has finished, is a prerequisite for better credit recognition rate. Student mobility starts with the Learning Agreement. Learning Agreement is a document, which includes processes of negotiation between the student, home institution and host institution on exact obligations during the study periods abroad (NUFFIC, 2014). Universities harmonize their expectations on study courses and necessary credit points prior to student's departure. Mobility students need to follow this contract in order to get their periods of studies abroad recognized. The underlying assumption of this research is that the Erasmus mobility within the consortium contributes to better credit recognition rate because it stimulates mobility partners to deliver study courses as promised in the initial Learning Agreement. All subsequent changes of the contract diminish the value of the initial negotiation and jeopardize the recognition processes. Consortium partners

deliver all promised courses due to inter-organizational trust (organizational reliability), reciprocity and commitment among the consortium partners (see the explanation of separate variables above). Consequently, less changes of the Learning Agreement are necessary during the students' mobility, which results in better matching level of the initially agreed study courses and the Transcript of Records. The operationalization of the presented performance variable is included in the related independent and intermediary variables (see tables 4.3 (question 3), 4.4 (questions 2 and 4), and 4.5 (questions 2, 4 and 6)).

4.3.2 Length of administrative procedures for credit recognition

The estimated length of administrative procedures is the second identified credit recognition performance variable. Time consuming administrative procedures produce delays in recognition of study periods abroad, which results in lower success rate towards the full recognition. If student mobilities are implemented within the consortium, the length of administrative procedures shortens due to the predictability dimension of the inter-organizational trust, information sharing activities and the idiosyncratic language. The length of administrative procedures variable is operationalized together with the related independent and intermediary variables (see table 4.1 (question 4), 4.3 (question 3), and 4.6 (question 4)).

4.3.3 Level of developed organizational procedures for student mobilities

Organizational procedures for student mobilities importantly influence credit recognition rates. Defined organizational procedures (institutional rules) provide credit recognition staff with clear information which study courses from partner university substitute study courses at the home university, why are they substitutable, when and how has the Learning Agreement been signed, in which cases could it be modified, with which study courses etc. Such additional information consequently facilitates credit recognition performance. The relevance of developed organizational procedures is identified as one of the recommendations for better credit recognition processes by NUFFIC (2014). The underlying theoretical assumption of our research is that additional governance rules are more strongly present for student mobilities within the consortium due to more developed governance structures between the mobility partners (such as joint problem solving) and the restricted access to student mobility. The operationalization of the presented variable is included in the related independent and intermediary variables (see tables 4.2 (question 4) and 4.7 (question 4)).

4.3.4 Level of satisfaction with learning outcomes by higher education teachers

Last presented credit recognition performance aspect focuses on the level of satisfaction with the learning outcomes. PRIME report states that credit recognition processes are affected also by the attitude of higher education teachers towards their courses, which are taken at the host institution during the periods of studies abroad (Dicle et al., 2010). According to the research, the equivalence of education quality at host institution, as perceived by home professors, plays important role in recognizing study credits. For instance, “slightly more than half of the students needed the professors’ approval for at least some of the courses before they were recognized” (Dicle et al., 2010, p. 79). Therefore, we identify the level of satisfaction with learning outcomes by higher education teachers as the fourth variable of credit recognition performance. Due to the presence of inter-organizational trust (academic reliability), as well as the intermediary influence of reputation within the consortium, the level of satisfaction with learning outcomes rises. The operationalization of the level of satisfaction with learning outcomes is included in the related independent and intermediary variables (see tables 4.3 (question 5) and 4.9 (question 2)).

The summary of relations between dependent, intermediary and independent variables is provided in table 4.11. Each row presents one set of relations among the identified variables (for more elaborate explanation see appendix 9.2).

Table 4.11: Summary presentation of theoretical correlations between the independent, intermediary and depended variables

Structural embeddedness (independent) variables	Social mechanisms (intermediary) variables		Credit recognition performance (dependent) variables
Inter-organizational trust (organizational reliability)	Commitment (sub-dimension of macro-culture)	Collective sanctions	Matching ratio of study courses
Reciprocity			
Information sharing	Idiosyncratic language (sub- dimension of macro-culture)		Length of administrative procedures for credit recognition
Inter-organizational trust (predictability)			
Joint problem solving	Restricted access		The level of developed organizational procedures
Inter-organizational trust (academic reliability)	Reputation		The level of satisfaction with learning outcomes by higher education teachers

4.4 Research design

This section presents the research design of the empirical analysis. As it has already been argued in the introduction to this chapter, the most suitable analysis approach for our research is *the interpretative qualitative research*. The interpretative type of qualitative research reveals how do individual partner institutions experience the consortium, as well as enlightens the meaning it provides for the credit recognition purposes. Merriam (2002) lists eight different qualitative research designs or strategies: basic interpretive qualitative study, phenomenology, grounded theory, case study, ethnography, narrative analysis, critical qualitative research, and postmodern research. For the purposes of our research we use *the case study research design*, which is defined as “an intensive description and analysis of a phenomenon or social unit such as individual, group, institution, or community” (Merriam, 2002, p. 8). The case study extracts variables, which have been identified in the research model (see figure 4.1) by focusing exclusively on one integrated social unit (one consortium). Consequently, we analyse in depth the substantive elements of the consortium (the consortium characteristics) and their influences on the credit recognition performance of the individual partner universities.

4.4.1 Case study sampling method

The research model is empirically tested on the selected case study consortium - the European Consortium of Innovative Universities (ECIU). We purposefully choose the stated consortium due to the following reasons. Firstly, ECIU consortium merges innovative universities, which are more open for new management approaches and are therefore more likely interconnected with the consortium structure, its activities, goals and vision. The underlying theoretical assumption is that under such circumstances social mechanisms (our intermediary variables) arise. Secondly, the consortium has sufficient tradition for consortium characteristics to emerge (ECIU has been established in year 1997). Thirdly, consortium structure is cohesive, which is a necessary condition for consortium characteristics and social mechanisms to evolve (see graphical presentation of the network on figure 2.3). However, at the same time the consortium includes new institutional members, which are less embedded into the network structure. Such difference among partners enables us to test the research model between differently embedded consortium partners. Fourth, the consortium includes universities across the Europe from diverse higher education governance areas. By analysing the ECIU consortium we take into account the diversity of European Higher Education Area. Last but not least, the University of Twente is a member of the ECIU and a host institution to the consortium headquarters, which provides us an easier access to the consortium partners. To sum up, we use a purposive (non-probability) sampling method of the case study consortium.

4.4.2 Data collection and the research tool

Qualitative research includes three key tools for data collection: interview, observation and document analysis (Merriam, 2002). The primary data collection method for our research is *the semi-structured interview*, which is supported by *the document analysis*. *The observation processes* are included in the interviewing processes (we follow possible hesitation of the interviewee to answer our questions, the laugh etc.) as well as in the document analysis (the position of specific words, the graphical design of documents etc.). The semi-structured interview consists of *open-ended interview questions* (see the operationalization of independent, intermediary and dependent variables). Interviews do not provide solely the reflection of the social phenomenon which is being analysed, but also uncover the meanings assigned to that particular social phenomenon (Miller & Glassner, 1997). The presented tool empirically tests if the research model variables (see figure 4.1) are actually present within the ECIU consortium and how they are interrelated. Moreover, the semi-structured nature of the interview provides the opportunity to gain additional knowledge on currently unidentified relationships between the listed variables and possible additional ones. Interview questions are presented in appendix 9.5.

In-depth interviews are performed with the representatives of the ECIU partner institutions, who are actively involved with the recognition of the Erasmus mobility periods. Moreover, they have a broad overview on the student mobility issues at their institutions in general (this overview includes the attitude of higher education teachers towards the credit recognition processes, and the administrative staff viewpoints). We therefore perform interviews with the Heads of International Offices at each partner university. Other potential interviewees have been additionally discussed with Heads of International Offices in order to select the most suitable correspondents.

The representative institutions have also been carefully selected for the data collection purposes. The selection procedure is based on control mechanisms, which provide the background reasoning for credit recognition processes within the consortium (for more information see chapter 3). Therefore, in order to comprehensively collect all aspects of credit recognition processes within the consortium, we need to collect samples of institutions for every control mechanism which has been theoretically identified. This approach allows us to reach the internal validity of the research. The identified control mechanisms are: the network centrality position of consortium members; and their status characteristics (the duration of membership and the type of Erasmus mobility flows among network members).

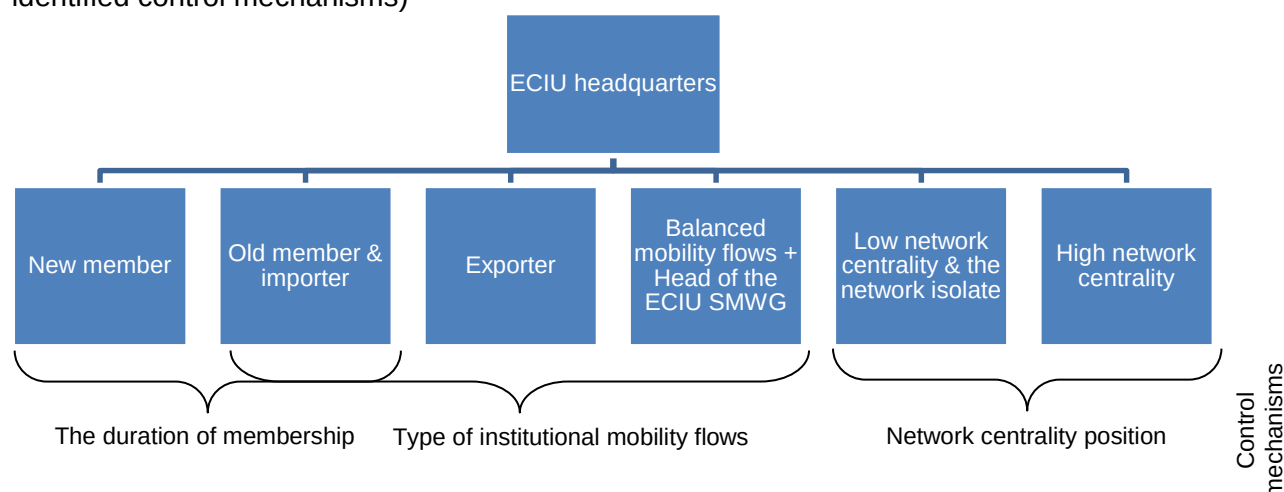
The SNA analysis of the ECIU network (see chapter 2) is of great assistance in this process because it provides the graphical representation of student mobilities within the consortium. Such figure enables us to easily identify the high centrality institutions; the network isolates; as well as to identify the consortium members with the specific prevailing pattern of student mobility flows (e.g. institutions, which are mostly student exporters; student importers or have balanced mobility flows)⁷.

For the data collection purposes we therefore select one representative institution from each of the following consortium characteristics: new partner institution; the institution, which is one of the founding ECIU members (according to our case study consortium this institution is at the same time the student importer institution); the institution, which is a good student exporter; the institution, which has balanced Erasmus mobility flows (at the same time this institution is the employer of the Coordinator of the ECIU Student Mobility Working Group (SMWG)); the high network centrality institution; and the low network centrality institution - "the network isolate" (Hawe et al., 2004).

Last but not least, we add an interview with the representative of the ECIU headquarters. This interview provides us with additional viewpoint on the consortium activities as perceived by the consortium itself. The adjusted interview questionnaire has been designed for this purpose, because the ECIU headquarters themselves do not perform credit recognition processes. With this interview we therefore collect only the observation of the ECIU management about the credit recognition issues at their partner institutions. Altogether, seven in-depth interviews have been planned, as presented on figure 4.5. The representative sample of higher education institutions is small due to the data collection method we have chosen, however large enough to include all possible varieties of the analysed population (Savenye & Robinson, 2005). The bottom part of the figure shows control mechanisms which have been used to identify the representative institutions.

⁷ Literature review shows the existence of prevailing Erasmus student mobility flows even on the country level. According to Breznik, Skrbinjek, Law, and Đaković (2013), the European countries are divided into three different groups of Erasmus mobility flows: good importers and exporters (Spain, Italy, France, Germany, Portugal), good student exporters only (Belgium, Netherlands, Austria, Czech Republic, Poland), and good student importers only (Denmark, Finland, Sweden, United Kingdom, Ireland). Institutional-level mobility flows inside the consortium frequently, but not necessarily reflect the country-level mobility flow patterns.

Figure 4.5: Selected representative institutions within the ECIU consortium (based on the identified control mechanisms)



Source: author

In addition to the semi-structured interview, we complement our research with the document analysis. Following documents have been analysed with the Atlas.ti software: the ECIU presentation brochure (ECIU, 2013); the ECIU webpage content ("European Consortium of Innovative Universities," 2013); the ECIU Consortium Agreement on the Development of High Quality Collaborative Educational Programs ("Consortium Agreement on the Development of High Quality Collaborative Educational Programs," 2010); and the ECIU student exchange webpage (ECIU, 2014). Document analysis serves as the control mechanism to the information, gathered by the semi-structured interviews (see subchapter 4.4.4).

4.4.3 Data analysis

Qualitative research includes the simultaneous research processes of data collection and data analysis. Such simultaneity allows the researcher to make possible adjustments to the research tool if the collected data are unreliable or invalid (Merriam, 2002). Our research takes into account possible adjustments to the interview structure during the data collection. All adjustments are documented and clearly stated in appendix 9.4. Data, which have been collected with the interviews, as well as the document analysis, is performed with Atlas.ti software for qualitative research. Inductive approach to data analysis includes searching for codes, which are constantly developed during the data analysis processes and compared with the theoretically identified variables. The repeating codes are then inductively summarized in more abstract manner by using the recursive abstraction data analysis method. The same inductive method has been used to identify possible correlations among the identified variables.

4.4.4 Quality control mechanisms

To ensure the quality of our research we need to take into account its internal validity, reliability, external validity (generality), and ethical issues (Merriam, 2002, pp. 22-30). Together with the detailed explanation of the research method, sampling processes, data collection and data analysis (see previous paragraphs), we create an 'audit trail', which is the essential element for ensuring the quality of our research (Merriam, 2002).

Firstly, *internal validity* reveals how findings match with the reality. In our research we need to closely observe and understand the influence of consortium characteristics on the credit recognition performance of the individual ECIU partners. *The semi-structured interview*, presented in appendix 9.5, enables us to attain such first-hand, comprehensive information directly from the representatives of the analysed institutions. Prior to the interviewing processes, we need to test interview questions with the interviewee (see appendix 9.4). The testing interview verifies if our questions measure the desired variables. Apart from beneficial aspects of the interview, we use elements of *triangulation* to further strengthen the internal validity of our research. Triangulation is a process of verification of the initial research findings. Four possible approaches are offered for these purposes: multiple investigators, multiple theories, multiple sources of data, and/or multiple methods (Denzin, 1978). We use multiple sources approach to check for possible inconsistencies in the data collection (see the discussion on document analysis in subchapter 4.4.2). Moreover, Merriam (2002) lists *peer review processes* as the another strategy to ensure the internal validity of the research. Our research is the master thesis project, reviewed by two supervisors as well as by the third committee member in the presentation phase. Peer review processes are therefore the additional internal validity control mechanism of our research. One important final remark has to be presented at this point. Apart from all presented aspects on the internal validity, the *researchers' position* towards the topic of research additionally influences the analytical processes as well as the outcomes of the research. We therefore provide an explanation of our position towards the research topic. We are familiar with the higher education field and have six years of working experience within the field. However, our professional work focuses more on the international research collaboration and institutional audits. The topic of student mobilities has been chosen due to the personal interest in how to organize Erasmus student mobilities more efficiently in regards to the credit recognition performance.

Secondly, we need to analyse the *reliability* aspect of our research. Reliability is the extent to which the research could be replicated. Replication of results in social sciences is difficult due to dynamic nature of social relations. Therefore, Merriam (2002) proposes to focus

rather on the consistency of collected data with the presented results. Tools, such as the triangulation, peer review, the researchers' position, and the audit trail are used for these purposes. First three tools have already been explained. Fourth, the audit trail is a detailed description of the research design. We present our audit trail throughout subchapter 4.4. Moreover, for the most comprehensive audit trail we need to include reflections on the research, which are presented in chapter 7. Chapter 7 presents questions, which have arisen during the research; reflections on research processes; as well as introduces possible ideas for the follow-up research.

Thirdly, the *external validity* of the research focuses on the generalizability of the findings. It argues whether and to which extent the results could be applied to other cases (in our case to other higher education consortia). Qualitative research methods do not enable statistically generalized results. This limitation is taken into account for the presented research. Merriam (2002) proposes a solution to this limitation by providing an extensive and rich descriptive analysis of the methods being used. Such approach enables the readers to learn from a particular case study and apply findings to their situation. In this manner, the qualitative research becomes generalisable. We follow this proposal and provide an extensive analysis of the semi-structured interviews and the document analysis. The research results are not used as the generalisable explanation how the consortium characteristics influence the credit recognition processes in individual institutions. However, our results importantly contribute to the understanding, which consortium characteristics are considered as relevant variables in the institutional credit recognition processes.

Last but not least, we need to take into account the *ethical issues* while performing the presented research. Ethical issues, relevant for the qualitative research, mostly relate with the processes of data collection, data analysis and the dissemination of research results (Merriam, 2002). In the data collection processes, we focus on critical boundaries between providing the collaborative relationship among the interviewer and the interviewee, while preventing the influential relationship. Interviewee has to provide the answers only according to his or her viewpoints, without any influence from the interviewer⁸. Special attention is also given to presenting the data in the same form as they have been collected. Therefore, we use quotes to additionally present the collected data during data analysis processes. This eliminates the possibility to influence their interpretation. Whenever the interpretation of the

⁸ In contrast, unconventional views to interviewing stress the importance of 'active' interviewing (Holstein & Gubrium, 1997). Interviewer actively introduces the interpretive practices to the interview process. In this manner, interview practices become »the procedures and resources [used] to apprehend, organize and represent reality« (Holstein & Gubrium, 1997, p. 121).

data is used, it is clearly stated in the analysis. Last but not least, the empirical analysis and the dissemination of results exclude all names and identifications of institutions, which have been included in the research. We put specific emphasis in providing the confidentiality of the received data.

5. EMPIRICAL ANALYSIS

The empirical analysis reveals to what extent are the theoretically identified consortia characteristics actually present within the European Consortium of Innovative Universities and what are their influences on the credit recognition performance of the individual consortium partner. By using the semi-structured interviews and document analysis we manage to test whether the independent variables as well as the intermediary variables have the actual effect on the following aspects of the credit recognition performance: the matching ratio of study courses, the length of administrative procedures, the level of developed organizational procedures and the level of satisfaction with the learning outcomes. Credit recognition performance is the main focus to our research. Only when credit recognition performance is positively influenced by the consortium characteristics it is reasonable to arrange student mobilities through the higher education consortium⁹. In the following paragraphs we therefore firstly present the results for the credit recognition performance variables. Secondly, the structural embeddedness factors are analysed. Last but not least, we discuss the intermediary effect of social mechanisms on the credit recognition performance.

We provide few additional remarks before presenting the research results. The empirically obtained qualitative data are interpreted in conjunction with the theoretical background of the variables. Moreover, the results of the presented qualitative research are not statistically significant. We have already explained in the previous chapter¹⁰ that the results cannot be used as the generalisable explanation how consortium characteristics influence the credit recognition performance at the individual consortium member. Rather, the aim of the presented research is to enlighten what is the actual impact of consortium characteristics on credit recognition processes for the concrete case study. By using the obtained results we are able to expand the current level of theoretical understanding of the phenomenon and empirically confirm or reject the defined hypotheses.

The presented empirical analysis includes all representative ECIU network members and their key characteristics, as listed in the research design section. Only one institution has not been included in the analysis. The representative student importer institution, which is at the same time one of the founding members of the ECIU, refused to participate in the research

⁹ The emphasis of better credit recognition processes as being the main benefit of students' mobility within the higher education consortium refers to the research framework (see figure 4.1). In addition to this impact, the consortium mobilities have other positive (and negative) effects on the individual higher education institutions (see sub-chapter 2.3).

¹⁰ The discussion about the external validity of the research is presented in sub-chapter 4.4.4.

due to the lack of available time and obligations, related to the new Erasmus+ Programme. The interviewing processes have been performed in March 2014 with the telephone or Skype communication methods (summary information of all interviews is provided in appendix 9.3). Moreover, we managed to obtain and analyse all requested documents for the document analysis: the ECIU Consortium Agreement on the Development of High Quality Collaborative Educational Programs ("Consortium Agreement on the Development of High Quality Collaborative Educational Programs," 2010); the ECIU presentation brochure (ECIU, 2013); the ECIU webpage content ("European Consortium of Innovative Universities," 2013); and the ECIU student mobility webpage content (ECIU, 2014). In addition, the ECIU Student Mobility Facebook Page has been checked for possible additional information about the student mobility within the consortium.

5.1 Empirical analysis of the credit recognition performance variables

The primary focus of the presented empirical analysis is to reveal what is the actual influence of independent and intermediary variables on the credit recognition performance. Both theoretically identified attributes of credit recognition performance, the academic satisfaction with learning outcomes, as well as its administrative aspects, have been positively influenced by the characteristics of the "structured" student mobilities. However, the research shows that not all aspects of administrative performance are equally affected. Therefore, the empirical results are presented in two separate sub-chapters. Firstly, we discuss credit recognition variables that positively correlate with the consortium characteristics. Secondly, we present absent correlations with other administrative aspects of credit recognition performance (the matching ratio of study courses and the level of developed organizational procedures). The end of this sub-chapter provides summary information about the affected credit recognition performance variables.

5.1.1 The primacy of academic satisfaction with the learning outcomes

All ECIU universities express higher level of satisfaction with the education quality when student mobilities are implemented within the consortium. Such statements appear consistently throughout all interviews regardless if universities are embedded weakly or strongly within the ECIU network. A different viewpoint is provided only from the network isolate, which has no mobility linkages with other ECIU members. The interviewee explains: "I found out by accident that we were part of the ECIU. It's not clear to me in what area we could really take place"¹¹. All other network members confirm greater satisfaction with the

¹¹Follow-up research would be needed to analyse the motivation of this university to sign the ECIU consortium agreement and whether the trust in academic quality has been present.

learning outcomes inside the ECIU consortium in comparison with other mobility partners. Such satisfaction is based on the trust in academic quality (the reliability dimension, see chapter 4), which is “a bit higher because when the student goes to study in the university under the ECIU, then we know that the quality is checked and approved”. Another interviewee connected the education quality of the ECIU members directly with better credit recognition performance: “the ECIU is chosen to be quite similar to our university and that could be an advantage to find the courses that are on the right level and that the EC’s are included in the final graduation”. All presented statements therefore demonstrate a clear connection between the trust (independent variable) and the greater satisfaction in learning outcomes (dependent variable), which consequently results in better credit recognition performance. Consortium as a platform for Erasmus student mobilities enables such positive correlation because it connects those partner universities, which presented their quality to other mobility partners prior to their actual cooperation in mobility exchanges. Members familiarize themselves about their quality not only via the official Erasmus mobility documents (such as the Learning Agreement), but also through other means of cooperation (international projects, joint research activities, facility sharing etc.). One of the interviewees commented: “This is just about mobility. There are of course many other projects”.

One additional observation has to be presented at this point. According to our analysis, the credit recognition processes depend on the level of satisfaction with the learning outcomes in the same manner, as presented in the findings of the PRIME report (Dicle et al., 2010). Following this report, the recognized study courses have to be equivalent with study courses, as taught at the home institution. One of the interviewees summarized this observation in a following manner: “not all faculties are willing to recognize all courses; sometimes they want students to do exactly the same things abroad.” This finding confirms that the education quality is of primary concern to the universities. Moreover, it stresses the importance to include higher education teachers more closely into the entire process of the Erasmus student mobilities (from the selection of the host university until the recognition of the study credits). Only those higher education teachers, who are closely familiar and satisfied with the learning outcomes at the host institution, will recognize study credits, which have been obtained during the periods of studies abroad. Student mobility inside the consortium enables such processes with the careful selection of network partners and constant contact through different cooperation activities.

Furthermore, the trust variable has an influence also on the administrative aspects of the credit recognition performance. It affects primarily the duration of the recognition processes. Respondents refer to such processes as being “a little bit shorter” for student mobilities within

the ECIU consortium. However, contrary to the above presented direct influence of trust variable on the satisfaction with the learning outcomes, the duration of the credit recognition processes is affected indirectly, through tacit information about the consortium partners. One of the interviewees summarizes this finding in a following statement: “we have built up a basis of trust over many years of working together and so when you trust your partner university, it’s much *quicker* [emphasis added] to go through credit recognition processes because *you don’t bring up questions about what students have done or what students have not done* [emphasis added]. So the question of trust is central.” The presented empirical evidence therefore reveals the influence of the social mechanisms variables, more specifically the idiosyncratic language on the duration of the recognition processes. Consortium structure is a carrier of tacit information about the mobility partners, which are highly relevant in credit recognition processes because they serve the needs of the home university to thoroughly understand the learning outcomes of the mobility student. The Erasmus mobility within the consortium enables not to attain such information faster, but to be served whenever it is needed. ECIU consortium namely does not have any additional information sharing documents or practices¹², which would enable the attainment of the required information in some other way than provided with the official Erasmus documents (see sub-chapter 5.2 for the empirical analysis of the structural embeddedness variables). More importantly, the consortium structure itself serves as a repository of the additional information.

Additional observation confirms the correlation between the idiosyncratic language and the shorter recognition processes. The duration of credit recognition performance is shorter only at the universities which are strongly embedded within the ECIU consortium. This confirms that the social mechanisms develop gradually and are evident to consortium member institutions only after a certain period of joint cooperation. Follow-up research would be needed to analyse when and how do consortium partners become aware of the social mechanisms and the repositories of additional information. To sum up, the duration of credit recognition processes is influenced indirectly, through social mechanisms, not directly in a form of formal information sharing practices among the ECIU partners.

5.1.2 Absent correlations with the matching ratio of study courses and the level of developed organizational procedures

¹² The exchange packages and ECIU Exchange webpage have not been taken into account because they have been developed in year 2014, whereas our research focuses on the academic years from 2007/2008 to 2011/2012.

The empirical analysis reveals missing correlations with the two remaining credit recognition performance variables. Contrary to our theoretical model, the results show that two identified administrative attributes of the credit recognition performance (the matching ratio of study courses between the initial Learning Agreement and the Transcript of Records; as well as the level of developed student mobility procedures) do not correlate with the proposed independent and intermediary variables. Firstly, interviewees state no difference in the percentage of study courses that are successfully completed from the initial Learning Agreement regardless if student mobilities are performed within the ECIU consortium or not. Interviewees state that they do not provide courses specifically to the ECIU mobility students because universities generally already provide all of their study courses to the Erasmus students. One interviewee explains: "It's very simple. We offer all of our study courses to Erasmus students. This is because it is the understanding of the Erasmus programme that the students are fully integrated into the life of the university." No correlation is therefore a result of the necessity to avoid possible discrimination of Erasmus students based on their home university (see the analysis of the reciprocity variable in sub-chapter 5.2). Moreover, the matching ratio aspect of credit recognition performance is also not influenced by the commitment among the consortium partners. Commitment within the ECIU consortium has the formalistic nature. It is based only on the promotion of the mobility within the ECIU consortium. The empirical analysis shows that no other aspects of commitment are present within the consortium (such as providing the additional support in case of changes of the Learning Agreement especially to the ECIU students), which would positively contribute to the higher matching ratio of study courses (more detailed information is provided in the following sub-chapter).

Secondly, no correlation is observed also between the following (theoretically connected) variables: the level of developed organizational procedures for student mobility, influenced by the joint problem solving and the restricted access to exchanges. Interviewees state that no additional organizational rules have been provided by the ECIU headquarters for the Erasmus mobility purposes. More interestingly, the representative universities express no necessity for such additional rules. We present this viewpoint in the following sub-chapter, where we discuss the joint problem solving variable. Consequently, no correlation is possible between this variable and the level of developed organizational procedures. Furthermore, the empirical analysis has shown that the ECIU has not developed any form of more restricted access to student mobility during the analysed period (academic years from 2007/2008 to 2011/2012). The ECIU headquarters has started promoting its Exchange Packages only recently, in year 2014. Without the existing restricted access to student mobility no correlation is possible between this variable and the level of developed organizational

procedures. All in all, these identified independent and intermediary variables have no effect on the last presented aspect of credit recognition performance. Table 5.1 summarizes the empirical findings of the credit recognition performance variables.

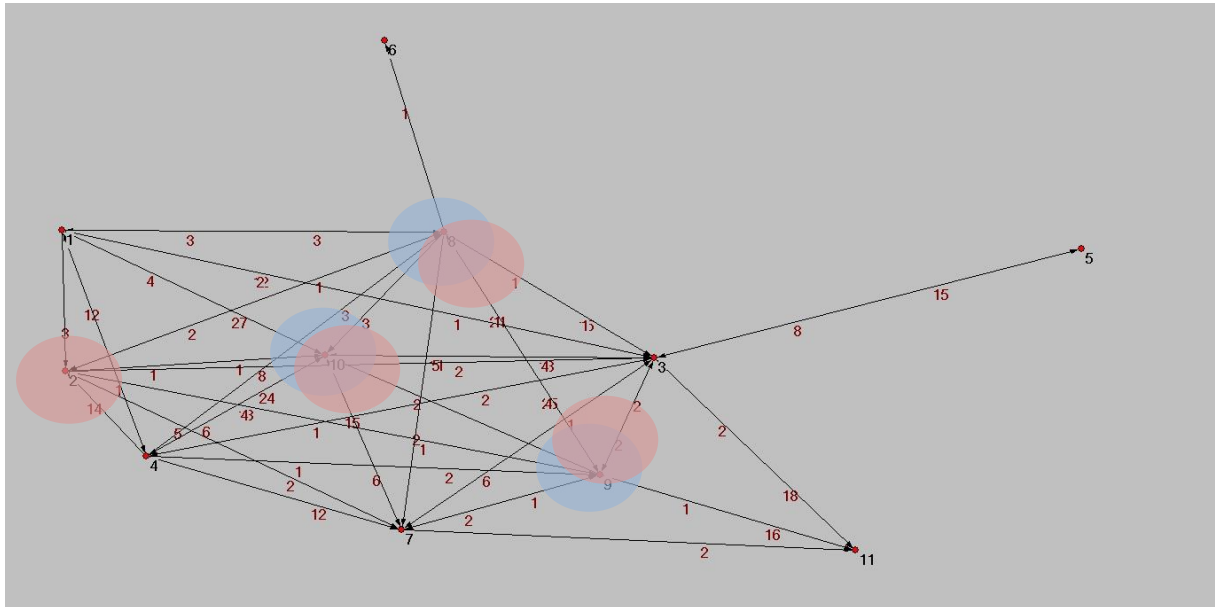
Table 5.1: Summary chart for the empirical analysis of the credit recognition performance variables

Credit recognition performance variables	Credit recognition performance in different types of ECIU partners						Triangulation method – variable control	
	New member	Old member & importer	Exporter	Balanced mobility flows	Low network centrality	High network centrality	ECIU head-quarters	Document analysis
Matching ratio of study courses	No difference	/	No difference	No difference	No difference	No answer possible	/	No, only indirectly (CA)
Length of adm. Procedures	No difference	/	No difference (sign of shortage due to constant contact)	Shorter due to trust (quality of education)	No difference	Shorter due to constant contact	/	No
The level of developed org. procedures	No difference	/	No difference	No difference, existing rules suffice	No difference	No difference, existing rules suffice	/	No, only indirectly (CA)
The level of satisfaction with learning outcomes	No difference	/	Slightly higher	A lot higher	Slightly higher	Higher	/	No, only indirectly (CA)

Notes: *CA: Consortium agreement on the development of high quality collaborative educational programs

The above presented table is of great importance to our research because it uncovers the relation between the credit recognition performance variables and the types of consortium partners. By using this approach we are able to identify, which types of consortium institutions already use the beneficial aspects of student mobility within the ECIU and which types of institutions should be better engaged. According to our empirical analysis, the higher level of satisfaction with the learning outcomes and the shorter administrative procedures appear mostly in institutions, which are more strongly embedded into the ECIU network (the representative institution with the high network centrality, and the balanced mobility flows institution). Figure 5.1 nicely graphically summarizes these findings. Both relevant credit recognition performance variables appear mostly in universities, which are in the centre of the network activity (organization no. 10) or are the bridging organizations (organizations no. 8 and 9, which connect isolated universities no. 5, 6, 11 to the central universities). The access to consortium characteristics therefore plays an important role for the evolvement of better credit recognition rates. In the following sub-chapter we explain these internal processes more in detail by turning to the specific consortium characteristics. The analysis of the structural embeddedness variables and the social mechanisms variables provide us an insight on how exactly the mobility within the higher education consortium stimulates better credit recognition performance.

Figure 5.1: The presence of credit recognition performance variables within the ECIU consortium



Source: author

Legend: blue circle marks the appearance of shorter administrative procedures within the ECIU consortium. Red circle marks the appearance of the higher level of satisfaction with the learning outcomes within the ECIU consortium.

5.2 Empirical analysis of structural embeddedness variables

Four different aspects of structural embeddedness have been identified in our research model: the information sharing, joint problem solving, the inter-organizational trust and the reciprocity. In theory, all four identified variables importantly contribute to stronger mutual engagement of mobility partners and consequently to their mobility performance (including the better credit recognition processes). Our empirical analysis confirms positive correlation between the structural embeddedness and the credit recognition performance, primarily due to the strong presence of inter-organizational trust within the case study consortium. In contrast, the information sharing activities and reciprocity have not evolved. Last variable, the joint problem solving, appears in a specific manner together with the trust variable and has therefore been analysed separately. All three groups of findings are presented in the following sub-chapters, which thoroughly provide arguments for our confirmation of the research hypothesis 1.

5.2.1 Central role of the inter-organizational trust among ECIU partners

Trust is the most relevant variable when explaining the effects of the consortium characteristics on credit recognition performance. This variable consistently appears throughout all performed interviews regardless of the type of the consortium member (low centrality, high centrality, network isolate). Moreover, it is present also in the document analysis. As it has already been presented in the theoretical part of this research, the operationalization of the trust variable is based on the reliability and predictability components. Qualitative research results reveal the primary importance of reliability components in credit recognition processes at the individual partner universities. One of the interviewees for instance stated that ECIU partners are the universities where “the education quality is checked and approved”. Even more relevant is the fact that the ECIU consortium connects universities with the similar study programmes, which is, as one interviewee states, “an advantage to find the courses that are on the right level and that the EC’s are included in the final graduation”. An appropriate level of education quality therefore has a direct influence on credit recognition processes. This finding confirms the research hypothesis 1, which stated that credit recognition performance rises due to the structural embeddedness of the consortium members.

ECIU mobility partners are trustworthy because sending institutions are confident that their ECIU partners will fulfil the academic obligations of the Erasmus student mobility. Academic quality reflects among others in innovative methods of teaching and tutoring, which is being recognized by the faculty coordinators during their visits to the ECIU universities: “we [heads

of International Offices] get very similar feedback – an overall and strong good impression of the quality of teaching that takes place at the ECIU partners”.

Moreover, ECIU partner universities confirm both dimensions of “the reliability trust” within the consortium. Apart from the academic component, the administrative aspect has also been present: “Really, it’s the quality of the whole experience, not just the education, it’s the whole experience”. Partner institutions appreciate not only the educational quality of the ECIU partners, but also the supporting organizational efforts provided to the Erasmus students, such as the introductory days, mobility buddies etc. However, all interviewees state that the difference of the ECIU in comparison to the other mobility partners is only slightly better, and more importantly, not evenly acknowledged among all partners. Closer position analysis of the universities, which claim the lack of confirmation of the educational quality from their network members, shows that these universities have a border network position and come from the Southern or Eastern part of Europe.

Furthermore, interview analyses reveal the relevance of the predictability component within the ECIU consortium. Predictability component focuses on the continuity dimension of the relationships between the mobility partners, or as one of the interviewees from the low centrality university stated: “There would be those particular programmes [of the ECIU network] where some of them have been used for quite a long time so I assume that they are very well [...] organized and a lot of students have tried it”. An interesting observation comes from the fact that border network universities stress more strongly the predictability component of the trust, whereas high network centrality universities state primarily the reliability component (the educational quality). Further quantitative analysis could reveal if the predictability dimension of the inter-organizational trust (therefore the continuity of relationships) is the prerequisite for reliability component to evolve. Such analysis should include several consortia in order to prove as statistically significant.

The additional document analysis confirms a constant appearance of the trust variable within the ECIU consortium. Collaborative processes are built upon the mutual trust among all ECIU partners: “The ECIU has grown into a Consortium with a high level of mutual trust, close networking at senior levels of member institutions and broader networking and collaboration across academic and administrative areas in all member institutions” (ECIU, 2013, p. 10). The trust component, primarily its reliability component, is furthermore elaborated for the student mobility purposes in the preamble of the Consortium Agreement on the Development of High Quality Collaborative Educational Programs: “ECIU aims at being known for its excellence in education, shown in regard to quality and quality of student,

PhD and staff exchange" ("Consortium Agreement on the Development of High Quality Collaborative Educational Programs," 2010, p. 1). All listed documents confirm strong formal declaration of trust among the consortium partners.

5.2.2 Absent variables: information sharing and reciprocity

Not all theoretically identified structural embeddedness variables have been present in the empirical analysis of the ECIU consortium. The first absent structural embeddedness variable is the information sharing. Information sharing activities between the ECIU partners do not go beyond the formal communication processes, as designed by the holder of the mobility programme, the European Commission. All respondents mainly use the Learning Agreement and the Transcript of Records for the credit recognition purposes. These are the two most relevant documents for the transfer of information about the mobility expectations (study courses at the host institution), the concurrent changes and the final results (primarily the grades and credit points) of the students' mobility period. Moreover, some of the interviewed institutions have institutionalized the EU recommended information sharing practices and have been awarded the ECTS Label (EACEA, 2014). The additional documents and practices, which would be designed only for student mobilities inside the ECIU consortium, would therefore present an inconsistency with the ECTS key features' rules or even an additional institutional burden. The representative of the ECIU high centrality mobility partner stated: "We only use the Learning Agreement and that's enough. I think it might be complicating to have our own [ECIU's] set of recognition documents". Universities, which would like to maintain strong mobility flows (inside the ECIU as well as with other mobility partners), cannot afford to use different sets of credit recognition documents. Rather, they demand for more uniform solutions. Such demands are in line with the nature of the Erasmus student mobility programme, which is providing multiple and various opportunities for the European inter-cultural experience, language learning and the promotion of the European labour market (Papatsiba, 2006). The provision of multiple mobility opportunities is only possible when universities across Europe use the same credit recognition documents.

However, the presented situation should not be misunderstood. ECIU mobility partners claim the lack of information in credit recognition processes, such as the information about the course units which are being substituted with courses from the partner universities; the information about the meaning of the grade (one respondent described it as "the real value of the grade"); as well as the additional information about the learning outcomes. Respondents expect new Erasmus+ forms to address these issues, rather than solving them with separate ECIU documents or mobility practices.

The ECIU members are therefore not strongly embedded with the means of formally established channels of communication. The ECIU balanced mobility flows university summarizes the situation nicely with the following statement: “As a network the ECIU does not bring any practically added value [referring to the information sharing] to the network”. Member institutions engage in information sharing activities based on their bilateral exchange cooperation, rather than based on their common ECIU network structure. Legal and structural foundations do not guarantee that the individual partner university will actually get involved into such information sharing activities. The Coordinator of the ECIU Student Mobility Working Group explains: “That is something that we struggle for at the moment because there are many partners that are not very much interested in intensifying the exchange just because we are together in the ECIU”. There is therefore no interest in attaining the additional information for credit recognition purposes among the ECIU partners, which disables the creation of learning organizations among the consortium partners.

Additional document analysis confirms the current state. It shows that the ECIU headquarters has only recently started with the more systematic approach of sharing the additional information about its members by setting up the new ECIU student mobility webpage (ECIU, 2014). Launched in 2014, the new webpage provides the PDF portfolio for study courses which are part of the ECIU exchange packages. Deeper webpage analysis shows that such information is currently available only for one third of the consortium members, who engage more strongly with the Erasmus student mobilities. In relation to the above presented arguments the question rises whether such new ECIU information sharing practices are relevant for credit recognition purposes. They address the above presented list of missing information (such as the additional information about learning outcomes etc.), however by forming the additional (formal) information channel, which presents additional administrative burden to the partners. Based on the above presented argumentation, this should rather be done with stronger support to the informal exchanges of knowledge among the higher education teachers. Erasmus exchange programme for professors for instance enables such informal flow of information, which is much more relevant for the credit recognition purposes.

The second absent structural embeddedness variable is the reciprocity. Opposite to the theoretical background of the reciprocity variable, which states that consortium mobility partners are prepared to cover possible additional costs of teaching activities and implement study courses for the ECIU mobility students even if the number of attending students is too low (following the institutional rules), the analysed case study consortium does not support such claim. The interviewed ECIU universities identify no distinction among the Erasmus mobility partners regarding this matter and would not cover possible additional costs of

teaching activities only for the ECIU Erasmus students. As one interviewee stated: “No, it won’t be running [study course] just because of an ECIU student there”. Consequently, the reciprocity variable cannot influence the matching ratio of study courses as listed in the Learning Agreement and the Transcript of Records. Interestingly, interviewees recognize such request as being legitimate within the consortium. One of the interviewees stated: “I probably should say yes, but I don’t think so [referring to the provision of study courses if the number of students is insufficient]. *Laugh.*” The argumentation for such decision lies within the non-discrimination of Erasmus students. Low network centrality university explains this in a following manner: “We try our best for every student no matter if it is the ECIU student or any other student.”

Similarly, the empirical analysis shows that host universities would not offer more study courses to the ECIU mobility students in comparison to the other mobility students. Most of the interviewed universities already offers the majority of their study courses in English (especially for the graduate study programmes), which are automatically offered also to the Erasmus students. Moreover, universities are aware that all courses should be offered to the Erasmus students according to the ground rules of the Erasmus Programme. The list of separate study courses only for the selected group of mobility students “is not at all at our opinion in the spirit of the Erasmus Programme and certainly not striving to fulfil the objectives of the [Erasmus] programme”, explains one interviewee. Last but not least, the only relevant aspect of the reciprocity among the ECIU members is the issue of acceptance of Erasmus students between the consortium members. One interviewee stated: “I don’t think we have ever seen anyone being told that they couldn’t come from the ECIU partners”. Document analysis confirms that formally all consortium members accept their duty of offering a “significant number of exchange places for the BSc and MSc cycles” (“Consortium Agreement on the Development of High Quality Collaborative Educational Programs,” 2010, p. 1). However, this finding contradicts the ECIU Student Mobility Working Group Coordinator, who listed the lingual and quality perceptions obstacles to the mobility within the consortium. Further analysis would be needed for the clarification of the presented disparity.

5.2.3 High relevance of governance mechanisms for the development of inter-organizational trust

The empirical analysis of the joint problem solving variable shows that consortium characteristics and their influences on the credit recognition performance should always be studied in relation to the identified mission of the specific consortium. According to the document analysis, the main aim of the ECIU is to provide and coordinate the innovative practices in the higher education field:

“The ECIU is a consortium of research universities focused on collaboration in innovative teaching and learning, enhancement of university-society interaction, internationalization of the student and staff experience, and active engagement in policy development and practice within the evolving European Higher Education Area. Innovation is central to the shared ethos of the member institutions...” (ECIU, 2013, p. 1)

The analysis of the ECIU mission shows, that no student mobility tasks have been assigned to the consortium, neither its governance processes nor more specifically solving the joint problems on credit recognition. All performed interviews confirm this statement. The ECIU consortium therefore provides no specific governance rules on student mobility, such as the Book of Rules and Procedures on Student Mobility within the Consortium; or the Rules on Establishing the Learning Agreement inside the Consortium. The only two mobility governance documents are the general Memorandum of Understanding, and the Consortium Agreement on the Development of High Quality Collaborative Educational Programs. The representative “balanced student mobility flows” university summarizes this finding in a following matter: “The ECIU does not have the vocation for that”. Unlike the theoretical proposition stated, the case study consortium has not developed any of the so called “recognition mattresses” (term, provided by the interviewee), which would formalize credit recognition processes by providing the inter-institutional rules prior to the student mobility.

However, the empirical analysis reveals one interesting characteristic of the joint problem solving variable: its indirect influence on the credit recognition processes through the trust variable. Interviewees demand for more indirect support in governing student mobilities from the ECIU consortium. Student Mobility Working Group Coordinator stated that the Network Administrative organization (NAO) could reinforce the value of the already signed Memorandum of Understanding among the ECIU members in order to strengthen the perception of all consortium partners as high quality education institutions. This type of support is currently not provided by the NAO. The university with the border network position claims that reinforcement of such governing rules would not directly manage the credit recognition processes; however it would importantly contribute to the feelings of trust (based on the academic quality) among the ECIU partners¹³. Similar requests have been stated about the mutual recognition of language competences within the ECIU consortium. Currently, some of the consortium members demand a proof of language competency prior to accepting students to their university.

In order to develop the proposed governance mechanisms, the ECIU consortium should follow Thomson and Perry (2006) four necessary characteristics of governance processes within the consortium (see chapter 4): no hierarchical structure is required; the awareness of

¹³ Chapter 5.2.1 explains positive impact of the trust variable on the credit recognition performance.

its members to reach the agreement is necessary; university recognizes the interests of all partners; and the mutual understanding among partners is present. Current state of affairs within the ECIU consortium demonstrates the opportunity for these conditions to be fulfilled. The NAO reflects the hierarchical structure of the ECIU (the consortium is managed by the board of rectors), however this structure is being complemented with the horizontal management team of experts from different member universities. Regardless of such improvement, there are additional open issues to be addressed about the other three listed governance characteristics. As one of the interviewees states: “The ECIU Student Mobility Working Group has tried to address this issue [recognition of interests of all partners, mutual understanding of partners’ quality] and has not made any progress. So that just says a lot ... what the true vocation of the ECIU is or is not”. Similarly, other interviewee identified the continuing difficulties in signing the Shared Erasmus Agreement among the consortium members. All these examples provide an opportunity for the continuing development of the ECIU’s governance processes. Table 5.2 summarizes the empirical findings of the structural embeddedness variables.

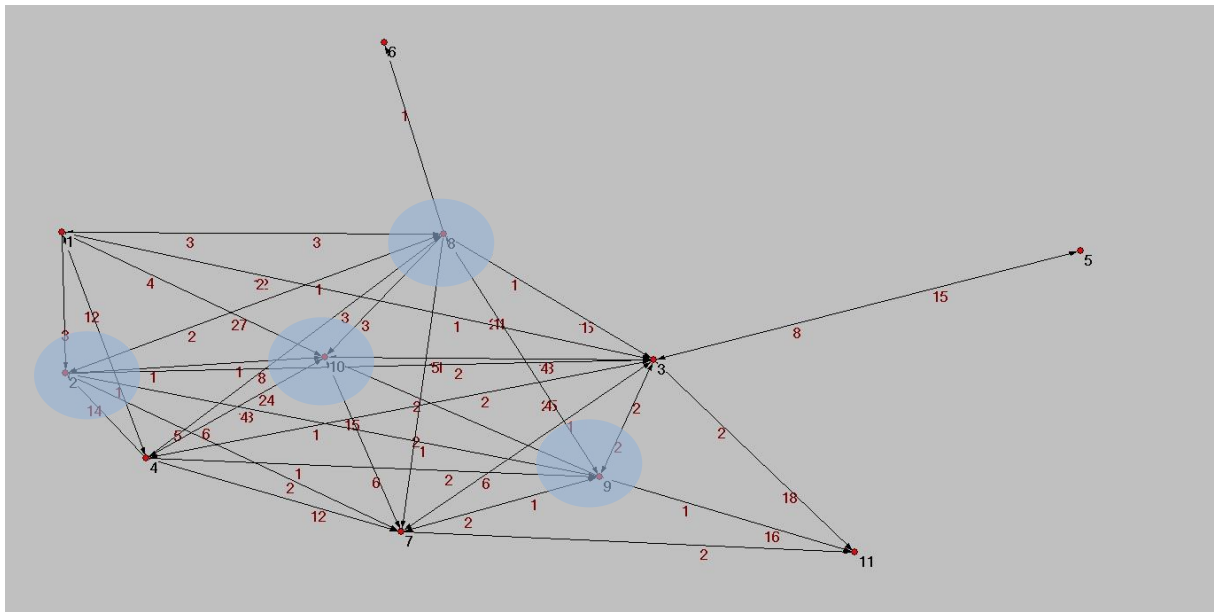
Table 5.2: Summary chart for the empirical analysis of the structural embeddedness variables

Structural embeddedness variables	The presence of structural embeddedness variables in different types of ECIU members						Triangulation method – variable control	
	New member	Old member & importer	Exporter	Balanced mobility flows	Low network centrality	High network centrality	ECIU head-quarters	Document analysis
Information sharing	No	/	Low, but necessity inside the ECIU and in general	No, no necessity inside the ECIU, however yes in general	No, but necessity for content	No, no necessity, even a burden	No, only recently	Low, very recent, student mobility webpage, FB page
Joint problem solving	No	/	No, desire for the SEA*	No, ECIU has no vocation for such activities	No, only CA*	No	No	No, ECIU brochure
Inter-org. trust	No, however all aspects of reliability matter	/	Yes, reliability (academic component)	Yes, strong reliability component, supported by predictability	Yes, predictability	Yes, reliability (academic component)	No, only recently (predictability)	Yes, ECIU brochure, CA
Reciprocity	No	/	No, the opposite problem	No	No, non-discrimination of mobility students	No	No	Yes, CA

Notes: *CA: Consortium agreement on the development of high quality collaborative educational programs; SEA: Shared Erasmus Agreement

In addition to the discussion above we provide the cross-section analysis of columns and rows for table 5.2. Such analysis provides us with additional information about the types of institutions (low/high network centrality, institutions with different types of mobility flows) which acknowledge the existence of structural embeddedness variables inside the ECIU consortium. The discussion from previous paragraphs already showed that only the inter-organizational trust positively and directly influences better credit recognition performance. The cross-section analysis additionally reveals that the inter-organizational trust is present in all types of the analysed ECIU partner institutions except in new consortium member. Institutions, such as the high network centrality university, the low network centrality university, as well as the universities with all types of mobility flows recognize the presence of the trust variable inside the ECIU consortium. However, after placing these findings into the actual ECIU network (see figure 5.2) and marking all these universities blue, we see that all analysed institutions are placed in the core area of the mobility network (around the institution no. 10). We therefore conclude that inter-organizational trust develops gradually, from the part of the network with most frequent activities to the network border area, where the less involved network members are being positioned.

Figure 5.2: The presence of structural embeddedness variables within the ECIU consortium



Source: author

Legend: blue circle marks the appearance of the inter-organizational trust within the ECIU consortium.

5.3 Empirical analysis of social mechanisms variables

The last part of empirical analysis focuses on social mechanisms within the ECIU consortium. The aim of this part of the chapter is to check whether the proposed research hypothesis 2 should be confirmed or rejected. According to the empirical analysis, the two theoretically defined social mechanisms' variables are actually present within the ECIU consortium. Consortium partners are affected by the following intermediary mechanisms, which evolve during the network functioning: idiosyncratic language and the collective sanctions. The third and fourth identified variable (the restricted access to changes and the reputation) have been absent in the analysed case study. Last but not least, we analyse the commitment variable separately from other social mechanisms. As explained below, the commitment should namely be one of the structural embeddedness variables. All three sets of findings are presented in detail in the following paragraphs. Based on the provided findings we confirm the relevance of social mechanisms in credit recognition processes. Social mechanisms have an intermediary impact on credit recognition performance within the ECIU consortium. However, this impact is not only positive, but also represses the credit recognition performance. We therefore only partially confirm our hypothesis 2. More information is provided in the following sub-chapters.

5.3.1 The intermediary role of idiosyncratic language and collective sanctions in credit recognition processes

Code analysis of the performed interviews reveals two social mechanisms variables which prove to be present within the ECIU consortium: the idiosyncratic language and collective sanctions. Interestingly, their existence is evident exclusively among institutions, who are strongly embedded within the ECIU student mobility flows between the academic years 2007/2008 and 2011/2012. This confirms that social mechanisms evolve only gradually during the network functioning. Physical positioning of all existing social mechanisms within the ECIU network nicely confirms our statement (see figure 5.3 at the end of this sub-chapter). On this figure, the idiosyncratic language and the collective sanctions are placed in the centre of the network, where the frequency of consortium activities is the highest.

As we already mentioned, one of the existing social context mechanisms within the ECIU consortium is the idiosyncratic dimension of language. Respondents state that it is easier to attain all requested information about the Erasmus student mobility from the ECIU partners than from other mobility partners. These partners "are a little bit closer that some other partners". Such perceived proximity is based on the fact that consortium members exchange much more information about the question in matter than just the information, physically stated in the Learning Agreement or the Transcript of Records. One of the interviewees

explains the presented argument in a following manner: »the quality of information available to students and to the faculty coordinators – it is *better* in the ECIU [emphasis added]”. The idiosyncratic dimension of language enriches communication processes between the mobility partners by reflecting the user and the social context in which it is being produced. In the presented case study “the quality of information available”, which is “better in the ECIU” refers to the trust in academic and administrative performance of the consortium partners. An interviewee explains the trust in administrative performance by emphasizing the simplicity of changing the Learning Agreement among consortium partners: “... the question of trust is there. We know, we *feel* strongly [emphasis added] if students need to change the Learning Agreement there will be no major difficulties in changing it at the later stage...” Similarly, ECIU consortium universities share tacit knowledge on the quality of educational processes through the ECIU’s mission, which states that the consortium will consistently “build on the existing innovation and enhance quality” (“European Consortium of Innovative Universities,” 2013). Consequently, such additional information about the student mobility shortens the processes of information gathering for the credit recognition purposes. An important emphasis has to be made at this point. The presented additional information is tacit information, which differs significantly from the explicit form of information sharing. The empirical analysis of the explicit information sharing processes (see the structural embeddedness section) has shown that no additional mobility documents have been designed by the ECIU consortium. Member universities only use the official documents, as provided by the holder of the Erasmus Programme. Such formal processes of information sharing should not be confused with the tacit information sharing through the idiosyncratic dimension of language, as presented in this section.

The second analysed social mechanism variable has the opposite effect on student mobility performance inside the ECIU consortium. Collective sanctions, such as the gossiping, the exclusion from further mobilities and the exclusion from information sharing, are not common among the ECIU partners. Most common sanction in case of insufficient academic or administrative performance would be not to recommend that particular university to the students anymore. Opposite to the presented theoretical framework, where the fear of collective sanctions would safeguard the exchanges and ensure the acceptable academic and administrative functioning of student mobilities within the consortia, it diminishes the beneficial aspects of consortium mobilities by making the performance “a taboo topic”, as one the interviewees explains. Another interviewee refers to the collective sanctions as being a very subtle topic: “There is generally an unwritten code of the respect for your partners in the ECIU because we meet each other a lot, we know each other personally, and there is a lot of good camaraderie between the partners.” Such approach to the topic of performance

suppresses the opportunities for further development of student mobility performance within the ECIU consortium. The information on concurrent performance of university partners is namely becoming more and more relevant for higher education institutions. One interviewee explains: “We need to cooperate on more complex partnerships and projects and it is becoming more difficult for us to cooperate because of the complexity of cooperation environment, and if poor academic and administrative performance, particularly the administrative and managerial performance is evident, then things get very complicated, even within the ECIU, yeah”. Last but not least, the interview with the ECIU headquarters reveals that despite the existing opportunities for regular communication on open issues (the consortium for instance has the ECIU Student Mobility Working Group) this mechanism is not being used for the discussion about the performance of partners.

5.3.2 Absent correlations with the restricted access to exchanges and reputation

The restricted access to exchanges is a form of social control mechanism, which is characteristic for the “structured” student mobilities. The restriction refers to the number of mobility partners. Erasmus students are able to choose their periods of studies abroad only from the limited number of carefully selected universities. The established closed group of universities then enables better monitoring of the learning outcomes and the higher performance of the credit recognition procedures. According to the document analysis, the ECIU consortium offers more restricted access to student exchanges by providing the Erasmus mobility exchange packages. Such packages guarantee “an integrated study programme on your chosen topic, no overlapping timetables, classes and exams in English, academic recognition of all your ECTS” (ECIU, 2014). However, the empirical analysis of the performed interviews reveals that only few consortium partners are aware of such mobility option. The ECIU universities are not very familiarized with the exchange packages among their network members. An interview with the representative of the ECIU headquarters clarifies this disparity between the document analysis and the interview analysis. The exchange packages have been developed only recently at the ECIU consortium (in year 2014). In order to provide an accurate analysis of the restricted access to exchanges within the ECIU consortium, the empirical analysis should be performed in the couple of years. Currently, the restricted access to exchanges variable does not have an impact of the credit recognition performance. One of the interviewees explains: “We don’t have any automatic credit recognition procedures in the ECIU, we have in one other network, but not in the ECIU”.

Reputation is the second variable which has no effect on credit recognition performance within the ECIU consortium. Interviewees strongly state that their credit recognition

processes are never influenced by the image of mobility partners in their eyes. One of the interviewees stated: “I don’t think we could ever do that, we have to have the grades to do that”. The other respondent added: “It would always be based on reality, if I say so”. These statements remain present despite the fact that the interviewed ECIU universities perceive other consortium partners as being more reliable in terms of academic quality in comparison to the other mobility partners (see the empirical analysis of the trust variable). We conclude that ECIU partners show high level of professional ethics in their work. Such attitude is connected with the already discussed aspect of non-discriminating the Erasmus students based on their home university or any other characteristic. According to the interviewees, all Erasmus students should share equal credit recognition procedures regardless of which host university they have visited.

Contrary to the theoretical hypothesis, the beneficial aspects of the reputation variable should therefore be carefully considered. According to the presented empirical results, the reputation should not be related to the trust variable. There is namely a thin, but important line of recognizing study credits according to better information about the academic quality of the host university on the one side and the reputation of the host university on the other side. The trust in academic quality and the reputation variables are therefore not related and do not jointly influence the credit recognition performance.

5.3.3 Commitment: the ECIU structural embeddedness variable

The commitment variable is strongly present among all ECIU network partners, except the network isolate. Codes, identified with the Atlas.ti software, show that all universities, which engage in the Erasmus student mobilities within the consortium, develop the attitude of commitment towards their mobility partners. Most of the interviewees for instance state that they would recommend the ECIU partners to their students¹⁴ more often than they would do that for other mobility partners. Such aspect of commitment is a form of a day-to-day commitment attitude towards the ECIU partners. However, one important observation has to be made at this point. Such attitude occurs at the analysed universities regardless if their student exchange flows are weak or strong within the consortium (see the different network position of the ECIU partners on figure 5.3). We therefore cannot speak of commitment as being the social mechanism, which develops gradually and continuously on the basis of the long-term orientation towards the ECIU partnership. Rather, the commitment variable is a

¹⁴ One example of such recommendation is the “Fast Track Practices” for student mobilities. These practices provide easy accessible information about the most suitable study programme for the student’s period of studies abroad. Moreover, the programme offers an additional support for Erasmus students prior to, during and after their mobility periods.

static dimension within our case study. One of the interviewees explains: “universities should sign the Learning Agreement, bilateral agreements as the matter of principle and not necessarily as the matter of good exchange procedure”. Such formalistic approach to long-term cooperation is represented also through the ECIU matrix. This document collects the information on how many Erasmus Agreements are signed or not among the consortium partners. The matrix is then regularly discussed at the ECIU Student Mobility Working Group. Document analysis confirms such declarative form of commitment: “[Consortium partners] have bilaterally signed exchange agreements with all other ECIU partners ... [and have] bilaterally set quantitative targets for students exchanged ...” (“Consortium Agreement on the Development of High Quality Collaborative Educational Programs,” 2010, p. 1).

The presented declarative form of commitment is welcome and strongly contributes to further development of the ECIU consortium; however it does not affect the credit recognition processes at the individual partner institutions. Consortium members declare their confidence in partners’ academic and administrative performance by signing the Learning Agreement. This is a first prerequisite for recognizing study credits for periods of studies abroad. However, such confidence is always formally declared at the beginning of every student’s mobility regardless if the mobility occurs among bilateral partners or within the higher education consortium. What is missing at the ECIU consortium is the aspect of commitment, which would support the reciprocity among the partners (see the analysis of the reciprocity variable). The interviewed universities for instance do not take up costs of offering the required list of study courses as listed in the Learning Agreement. They are therefore unwilling to make short-term sacrifices for possible long term benefits. One of the benefits would be the higher rate of credit recognition performance due to the better matching ratio of study courses from the Learning Agreement and the Transcript of Records.

Table 5.3 summarizes empirical findings for the social mechanisms variables. As already discussed, two relevant social mechanisms appear within the ECIU consortium: the idiosyncratic language and the collective sanctions. Both mechanisms influence credit recognition processes within the ECIU consortium, however in an opposite manner. While the credit recognition performance rises due to the idiosyncratic language, it is being suppressed by the collective sanctions. We can therefore only partially confirm our hypothesis 2. When student mobility is implemented within the higher education consortium, the social mechanisms have an intermediary effect on the credit recognition performance. This effect is not only positive, as proposed in our hypothesis 2, but rather changes according to the type of social mechanism in question.

Table 5.3: Summary chart for the empirical analysis of the social mechanisms variables

Social mechanisms variables	The presence of social mechanisms variables in different types of ECIU members						Triangulation method – variable control	
	New member	Old member & importer	Exporter	Balanced mobility flows	Low network centrality	High network centrality	ECIU head-quarters	Document analysis
Commitment	No	/	Fully	Partly (only maintenance of ECIU partnerships)	Partly (only recommendation)	Partly (only recommendation)	Partly (only maintenance of ECIU partnerships)	Yes, CA
Idiosyncratic language	No	/	No	Yes, quality of information and trust relations (explicit and tacit segments)	No	Yes, partners feel being closer	No	Yes, ECIU webpage
Restricted access to exchanges	No	/	No	No	No	No answer possible	No, only recently	Yes, ECIU student mobility webpage
Collective sanctions	No	/	Yes	Yes	No	Yes	No	No
Reputation	No	/	General statement	No	No	No	Depends on the individual member	No

Last but not least, we physically place both relevant social mechanisms' variables inside the ECIU network (see figure 5.3). Such approach provides us some additional information about the development of social mechanisms within the concrete network. Equally important is the information, which parts of the network are currently not influenced by social mechanisms. According to figure 5.3, both mechanisms develop in the centre of mobility network (universities no. 9 and 10). These results confirm that social mechanisms are the intermediary variables, which appear only after the universities are more strongly embedded into the mobility activities (the highlighted universities are namely the high network centrality university and the balanced mobility flows university; these types of universities benefit the most from the Erasmus student mobilities within the ECIU consortium). The follow-up quantitative analysis would reveal, if these findings are statistically significant also for higher education consortia in general.

6. CONCLUSIONS AND RECOMMENDATIONS

Credit recognition remains one of the largest problems of the Erasmus student mobility programme (Crosier et al., 2007; Dicle et al., 2010; NUFFIC, 2014; Sursock & Smidt, 2010; Teichler, 1996; Vossensteyn et al., 2010). The European Commission and other higher education stakeholders propose the solution to the identified problem in more accurate usage of the existing credit recognition tools, such as the ECTS (Education and Culture DG, 2009). A second set of solutions focuses more on the inter-organizational arrangements of student mobilities (the “structured” mobilities) and their beneficial aspects on the credit recognition performance. The presented research has concentrated on the second set of solutions. We have analysed, what is the impact of one of these inter-organizational arrangements, the higher education consortium, on the credit recognition performance.

Outcomes of the study

The analysis of consortium characteristics and their impact on the credit recognition performance has been performed within the European Consortium of Innovative Universities (ECIU). For these purposes, the qualitative research methods of interviewing and data analysing have been used. The results of our research confirm better credit recognition performance when student mobilities are implemented in frames of the higher education consortium. Universities, which actively engage in student mobilities inside the ECIU are influenced by (and actively use) the consortium characteristics in order to perform better in the credit recognition processes. This is an important discovery, which provides the scientific arguments for more “structured” mobilities to be promoted by the holder of the Erasmus mobility programme, the European Commission. Moreover, the universities themselves could use the presented findings in order to improve the recognition of periods of studies abroad. Such improvement requires from universities to re-organise some of their existing Erasmus partners into the higher education consortia. However, the presented research goes one step further on the respected topic and uncovers the “black-box” of consortium characteristics. By doing so, we answer a question, why the higher education consortium is actually relevant for better credit recognition processes. Two structural embeddedness variables prove to have an impact on the credit recognition performance, together with the intermediary influence of two social mechanisms variables. In general, the collected results are of great relevancy for the existing as well as the new higher education consortia. With these results, the network governance organizations (such as the NAO) have an opportunity to adjust their network activities for better credit recognition performance of the individual partner university. In the following paragraphs we summarize all relevant findings for these purposes and provide the summary figure of the research outcomes. We conclude the chapter with the recommendations for the analysed case study consortium.

According to our empirical analysis, the credit recognition performance of the individual ECIU member positively correlates with the characteristics of the same consortium. The performance variables, which prove to be relevant in the analysed consortium, are the level of satisfaction with the learning outcomes and the length of administrative procedures. All interviewees express higher level of satisfaction with the learning outcomes when student mobilities are implemented within the ECIU consortium in comparison to other mobility partners. This aspect of credit recognition performance has been constantly addressed by all interviewees and presents the most affected variable of the credit recognition performance. The education quality is therefore a primary concern to the analysed universities. In general, the higher education consortium importantly addresses this demand with careful selection of mobility partners and through constant cooperation on multiple fields (e.g. the research projects, the internationalization of curricula, joint publishing house, third mission activities etc.). The second relevant aspect of the credit recognition performance is the duration of recognition processes. Consortium structure serves as a repository of additional, mostly tacit information about the mobility partners. All additional information, provided through such repository, is highly relevant for the credit recognition processes because they serve the need of home university to thoroughly understand the learning outcomes of the Erasmus student. Only when the sending university has all requested information about the student's periods of studies abroad, the recognition processes are successfully completed. The consortium structure enables universities to collect all sufficient information through the idiosyncratic dimension of language. We summarize the importance of this variable in following paragraphs. Consequently, the duration of recognition processes is shortened. At the end we add one interesting remark to both presented performance variables. Both variables appear jointly and importantly shape the credit recognition performance of the individual consortium partner. This confirms that the credit recognition performance is not one-dimensional variable. In contrary, the consortium characteristics influence more aspects of the recognition performance at the same time.

The presented performance variables positively correlate with the following structural embeddedness factors: the inter-organizational trust and the joint problem solving. The most relevant consortium characteristic in this respect is the inter-organizational trust, which is based primarily on the quality of education, offered to the Erasmus students during their periods of studies abroad. According to the interviewed universities, academic quality is always the first priority to the mobilities, regardless if students are mobile within the ECIU network or elsewhere. One of the interviewees explains top three requirements for student mobility exchanges in a following manner:

“The academic rigor and what the student’s requirements are and what the partner’s institution is able to satisfy, that of course would be the number one; there has to be the academic equivalency. The student experience is another one; it has to be a good experience for the student because we need our students to come back and tell other students that they had a good time and it was worth it, it was hard work but that they enjoyed. That would be number two. And number three I think would be the willingness of our partner to want a relationship with the [university name hidden]. We want to have a good relationship with our partners, but they have to want it as well.”

Consortium structure satisfies the first listed requirement by guaranteeing the appropriate level of academic quality to the mobility partners. Our empirical analysis namely shows that academic quality is higher within the ECIU consortium in comparison to the other mobility partners. Such difference is identified among all analysed ECIU universities regardless of their position inside the network. Consequently, the satisfaction with learning outcomes rises, which is the aspect of better credit recognition performance. We therefore state that inter-organizational trust positively correlates with the credit recognition performance and confirm our hypothesis 1.

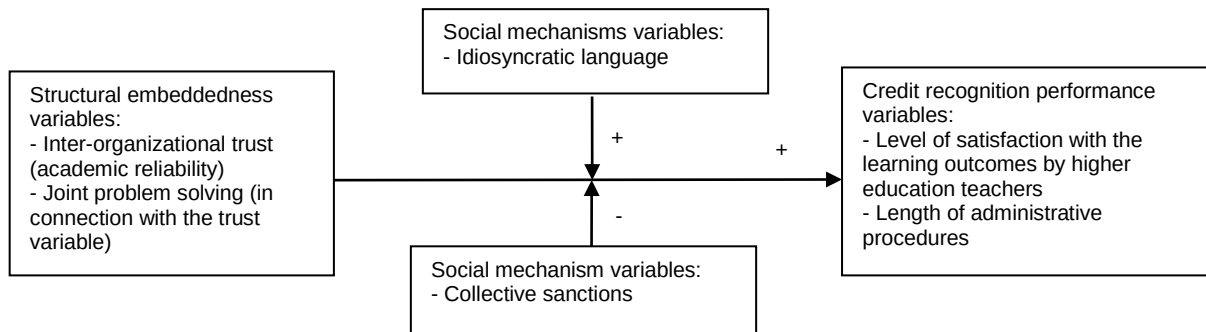
Another structural embeddedness variable, which is relevant for the development of inter-organizational trust among the consortium members, is the joint problem solving variable. However, we present this variable separately due to its specific characteristics. Contrary to the theoretical framework, the relevance of this governance mechanism is not in providing additional rules and procedures, which would assist student mobility and credit recognition processes within the higher education consortium. Rather, interviewees see the relevancy of this variable to reinforce the awareness about the academic quality of the ECIU partners. The interviewees demand for tools, which would continuously build the mutual trust in academic excellence among the consortium members. This should be done by using the existing joint problem solving mechanisms (such as the Memorandum of Understanding), or by signing the Shared Erasmus Agreement. The ECIU consortium has not managed to implement this viewpoint into its structure so far. However, the presented case study highlights the importance of this variable for the credit recognition processes. Therefore, we add the joint problem solving variable as one of relevant consortium characteristics. According to the empirical results, it is one of the structural embeddedness variables, which positively correlates with the credit recognition performance. Based on the presented findings we confirm our hypothesis 1. Credit recognition performance rises due to the structural embeddedness of the consortium members, primarily due to the inter-organizational trust among network members and the joint problem solving mechanisms.

The qualitative analysis has enabled us to attain even deeper insight into the respected topic of student mobilities within the ECIU consortium. One of these discoveries relate to the information sharing practices within the consortium. The main benefit of the consortium structure is not in its direct support to the information sharing activities, as proposed in the theoretical framework of our research. Interviewees state that no specific documents or practices (other than provided by the European Commission) are currently used within the ECIU consortium for these purposes. Rather, the information sharing practices are interwoven into the consortium structure itself. More specifically, our research confirms the importance of social mechanisms within the consortium structure. The first relevant social mechanism in this manner is the idiosyncratic language. The idiosyncratic dimension of language carries the additional, tacit information about the quality of educational processes at the ECIU member institutions. This additional information is provided due to the reflection of social context in which the language is being used. The communication among consortium members namely reflects all of their cooperation activities and practices (e. g. the joint research activities, internationalization projects, facility sharing etc.). Therefore, by using the idiosyncratic language, ECIU partners exchange more information than just the information, which is physically stated in the Learning Agreement and the Transcript of Records. Such communication reflects the academic relevancy of each mobility partner, its attitude towards guest students, the preparedness to solve potential difficulties in benefit of all included parties etc. For the ECIU consortium partners the idiosyncratic dimension of language is therefore a valuable social mechanism, which additionally supports them in information sharing practices. Idiosyncratic language acts as the intermediary factor between the inter-organizational trust and the credit recognition performance, which confirms our hypothesis 2.

Collective sanctions variable is the second relevant variable, which influences credit recognition processes in the ECIU consortium. Contrary to our theoretical assumptions, this social mechanism diminishes the beneficial aspects of the consortium mobility, because it suppresses the opportunities to openly discuss (possibly weak) academic quality of the mobility partners. Universities, which jointly cooperate on many activities, develop an attitude of good camaraderie among themselves. Such social environment disables proper information sharing processes for credit recognition purposes. We therefore speak of counter effect of collective sanctions on the relationship between the academic quality on the one side and the level of satisfaction with learning outcomes on the other side. Opposite to the idiosyncratic language, collective sanctions do not carry additional information, but rather intentionally hide aspects of weak academic performance of partner universities. The level of satisfaction with the learning outcomes is consequently reduced, which has negative effects on the credit recognition performance. This finding is contrary to the proposed hypothesis 2.

Together with the findings on the idiosyncratic dimension of language we therefore only partially confirm the proposed hypothesis 2. When student mobility is implemented within the higher education consortium, the social mechanisms have an intermediary effect on the credit recognition performance. This effect is not only positive, but rather changes according to the type of social mechanism in question.

Figure 6.1: Outcomes of the study



Source: author

All research outcomes are summarized on figure 6.1. The figure shows two performance variables, which are directly and positively influenced by the inter-organizational trust and the joint problem solving. Due to the influence of these two structural embeddedness variables, the level of satisfaction with the learning outcomes rises on the one side, and the duration of recognition procedures is shortened on the other side. Moreover, the consortium characteristics also indirectly influence the credit recognition performance variables. The idiosyncratic language supports the relationship between the structural embeddedness variables and the performance variables. As already stated, this impact is only indirect, because the idiosyncratic dimension of language serves only as the carrier of the trust variable. Due to this variable, the feelings of trust in academic quality become transferable among the consortium members. The idiosyncratic dimension of language namely reflects its social context (the past and present consortium activities, the attitude of its members, the macro-culture etc.). The second indirect variable is the collective sanctions. Contrary to the idiosyncratic language, the collective sanctions suppress the opportunities for the inter-organizational trust to evolve. The administrative and academic performance of the consortium members is a very subtle topic due to “the good camaraderie” between partners. Such attitude towards the performance of the consortium members suppresses the opportunity for better credit recognition rates to evolve. The feelings of mistrust and time-consuming search for the correct information namely prolong the credit recognition processes. The impact of these social mechanisms is therefore marked with the minus sign on figure 6.1. Last but not least, we emphasize that the presented outcomes are valid only

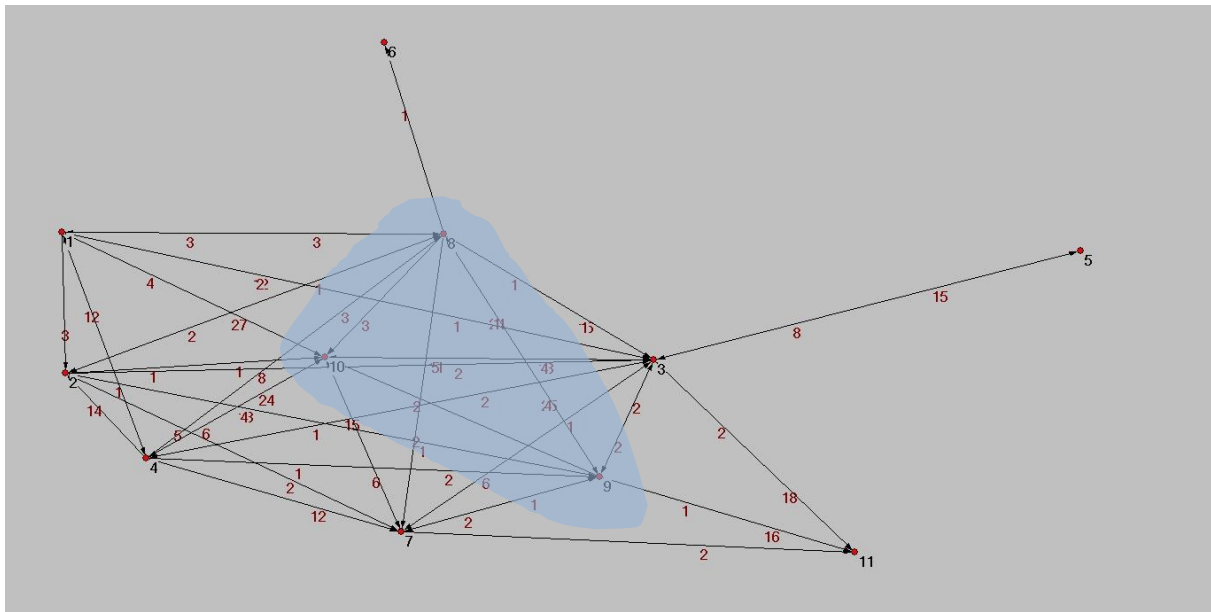
for the case study of the European Consortium of Innovative Universities. The follow-up (quantitative) research would confirm, if the presented outcomes are statistically relevant for all other higher education consortia (chapter 7 introduces the proposal of such research).

Network positioning and the exploitation of beneficial aspects of the higher education consortium

Our research confirms the dependence of the credit recognition performance on the consortium characteristics. As we already explained, these characteristics evolve due to the embeddedness of consortium partners into the consortium structure. However, one additional finding has to be presented at this point. The embeddedness of network members occurs only in the specific part of the case study consortium, where the network density is the highest. According to our empirical analysis, the consortium characteristics and better credit recognition rates appear mostly within the institutions, which hold the central network position and have the balanced student mobility flows. These partners hold the largest number of mobility connections with other network partners. At the same time, their cooperation activities are balanced, as they receive a comparable number of mobility students from the ECIU partners to the number of students being sent. The graphical positioning of our results in the ECIU network nicely presents this discovery (see figure 6.2). The figure simultaneously shows the presence of structural embeddedness variables, the social mechanisms variables and the credit recognition variables within the ECIU network. All three sets of variables strongly overlap. The area of overlapping is indicated with the blue colour. Most importantly, the blue area covers the part of the network, where the network activities have the highest frequency (i.e. high network density). Network positioning therefore plays a significant role for the access to the consortium characteristics. For the case study consortium we conclude that the more the university is involved with the consortium mobilities, the more accessible are the opportunities to this university to use the beneficial aspects of the consortium mobilities.

To conclude, the positioning of the partners within the network plays a significant role for the access to the consortium characteristics. This finding is important because it identifies a prerequisite for the most reasonable usage of the higher education consortium by all of its members. Only when each network member is actively involved into the network activities, the presented beneficial outcomes of this study are available to this member. In general, higher education consortia should therefore strive for high number of balanced mobility flows among all of its members, which would then form a cohesive group of mobility partners. Consequently, all partners would mutually exploit the beneficial consortium characteristics.

Figure 6.2: The presence of the research outcomes within the ECIU consortium



Source: author

Legend: The blue surface marks the overlapping area of all variables, which are present within the ECIU consortium (see figure 6.1 for the list of all these variables and their interrelation). The separate positioning of the credit recognition performance variables within the ECIU consortium is presented on figure 5.1. Structural embeddedness variables are separately shown on figure 5.2. The positioning of the social mechanisms variables within the ECIU consortium is shown on figure 5.3. The overlapping of figures 5.1, 5.2 and 5.3 provides the blue surface on figure 6.2.

Recommendations

The last part of this chapter provides the recommendations for the analysed case study consortium. These recommendations provide an opportunity for the ECIU members to improve their credit recognition performance by fully exploiting the beneficial aspects of the network cooperation. The most relevant aspect for better credit recognition rates in this respect is the trust in academic quality of the mobility partners. In order to understand the importance of such trust, we firstly need to reflect on the institutional environment, in which student mobilities occur. Erasmus mobility is part of the educational process of the individual university. Each university is an institution “of relatively enduring collection of rules and organized practices, embedded in structures of meaning and resources that are [...] relatively resilient to the idiosyncratic preferences and expectations of individuals and changing external circumstances” (Olsen, 2005, p. 5). Therefore, each university has its own perception of the academic quality. This perception is relatively enduring and reflects the specific structures of meaning of that particular institution. When student performs a period of studies abroad (at the host institution), the two meanings of the academic quality necessarily collide. The mobility within the higher education consortium enables universities to control this collision (see the empirical analysis of the trust variable). ECIU partners are already strongly aware of this beneficial aspect of the higher education consortium. However, at the

same time the interviewees state that more could be done for further recognition of the academic quality among the ECIU partners. One opportunity to do so is by *reinforcing the value of the existing Memorandums of Understanding*, which would confirm the value of the educational processes at all ECIU members. Similar effect would be reached if all consortium members would *sign the Shared Erasmus Agreement*. *The network administrative organization should take stronger role in these processes and initiate the discussion on the educational quality* of all network members. The result of the discussion would strengthen a flow of exchange students to/from partners, who are currently less involved within the ECIU network (the partner no. 1, 5, 6, and 11 on the figure 6.2). This brings us to the next recommendation. As we already explained in the previous section on the network positioning, *all network members should be included in consortium mobilities* in order to benefit from better credit recognition performance. The empirical analysis namely shows the presence of consortium characteristics in those parts of the network, where the density of the collaboration lines is the highest (see figure 6.2). Furthermore, more densely connected partners would create the supportive environment for social mechanisms to evolve. Social mechanisms appear only gradually during the network functioning. Currently, the ECIU benefits from the idiosyncratic language. We recommend *using the benefits of the idiosyncratic dimension of language deliberately* for the credit recognition purposes. The recognition personnel should be aware of all information, which are received as tacit information about the mobility partners. On the other side, the consortium members should reduce the negative impact of the second social mechanisms' variable in the ECIU consortium. *The academic and administrative performance of all network members should be openly discussed*. The information on concurrent performance is of vital importance not only for better credit recognition performance rates, but also for further development of the consortium itself. Currently, the ECIU members do not mutually discuss the performance issues despite the existing opportunities to do so (e.g. in the Student Mobility Working Group).

The second set of recommendations refers to the variables, which are currently not present within the ECIU consortium. Consortium members do not use any additional information sharing documents and practices apart from the formal communication processes, which have been designed by the holder of the programme, the European Commission. According to the interviewees, the additional credit recognition documents would only create an unnecessary administrative burden to partner universities. Universities namely cooperate with various mobility partners within different institutional arrangements. We rather propose the ECIU consortium to *introduce the new Erasmus+ mobility documents* as soon as possible. These documents close a gap in the existing information sharing deficiencies, and

at the same time they leave the doors open for other mobility partners. Similarly, the ECIU consortium members should not provide any additional classes or other exclusive learning support only to the students from the consortium member institutions. The interviewees strongly state *the non-discrimination of Erasmus student in regards to their home university*. The aim of the consortium cooperation should not be the exclusive treatment of any particular student (through the provision of study courses even if the number of students is not sufficient etc.), because this is not in line with the nature of the Erasmus programme. Universities have the full right to choose the most suitable students for their education processes. However, when the student is accepted, he or she should be treated equally to all other students, regardless of the mobility arrangement. The summary of all recommendations to the ECIU consortium is provided in table 6.1.

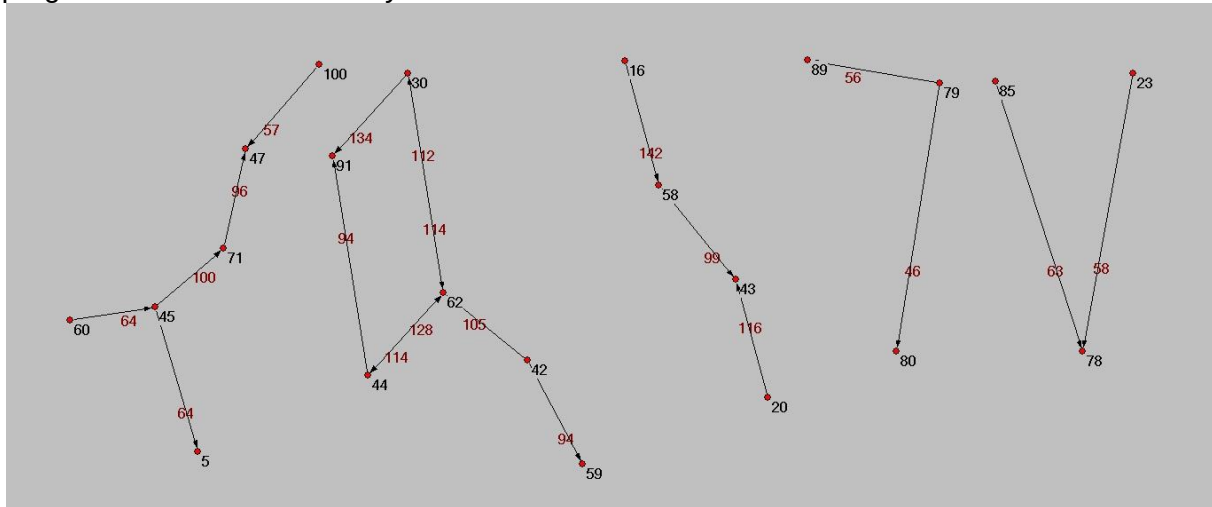
Table 6.1: The list of recommendations for the ECIU consortium

The list of recommendations for the better credit recognition performance within the ECIU consortium
1. Reinforce the value of the existing Memorandums of Understanding (the actual implementation of the agreements) 2. Sign the Shared Erasmus Agreement 3. Empower the role of the network administrative organization (NAO) in the consortium mobilities (for the promotion of the academic quality of the consortium members) 4. Include all network members in the consortium mobilities 5. Use deliberately the benefits of the idiosyncratic dimension of language 6. Openly discuss the academic and administrative performance of all network members 7. Introduce the new Erasmus+ mobility documents (rather than designing the separate mobility documents) 8. Do not discriminate Erasmus students in regards to their home university

7. REFLECTIONS

The presented work provides an insight into the higher education consortium as one of the “structured” mobility arrangements. More specifically, our analysis uncovers, what are the beneficial aspects of the higher education consortium for the persistent credit recognition problems. The recognition of periods abroad has been identified as one of the main problems since the launch of the Erasmus programme in year 1987. In many policy recommendation documents, the higher education consortium has been addressed to solve the identified problem. However, to the best of our knowledge, this inter-organizational mobility arrangement has not been given any attention in the existing scientific literature. The presented work closes this gap and analyses the impact of the consortium characteristics on the credit recognition performance. By uncovering the “black-box” of the higher education consortium and providing the empirical analysis on the respected issue we valuably contribute to the science on higher education policies and practices. Moreover, we hope to trigger the discussion on the organizational matters of student mobilities. Such discussion would be valuable for checking the existing opportunities of developing the higher education consortia for mobility purposes. Between the academic years 2007/2008 and 2011/2012 there has been more than 900.000 mobility paths implemented across Europe. All of these mobility paths provide an opportunity to be rearranged into different, more structured mobility approaches. Even more, the existing student mobilities already form the informal networks. These networks appear if we extract the most intense cooperation ties among universities (with 40 or more mobility paths). The SNA analysis reveals subgroups (islands) of universities, as shown on figure 7.1. Such subgroups present dense network relations among the specific universities, which is a good starting point for the higher education consortium to be formed. The existing links should be therefore substantiated with additional network cooperation activities, the NAO, and the social mechanisms. More importantly, the cooperation needs to involve all of the network partners (currently, the universities on figure 7.1 cooperate mostly with 2 or 3 universities within the network). All in all, we have to emphasize that the extracted groups of universities are not the examples of higher education consortia. Figure 7.1 only shows the islands of universities with most intense mobility relations, which have the potential to be developed into the consortia.

Figure 7.1: Subgroups of highly intensive collaboration universities in the Erasmus programme for the academic years 2007/2008 to 2011/2012¹⁵



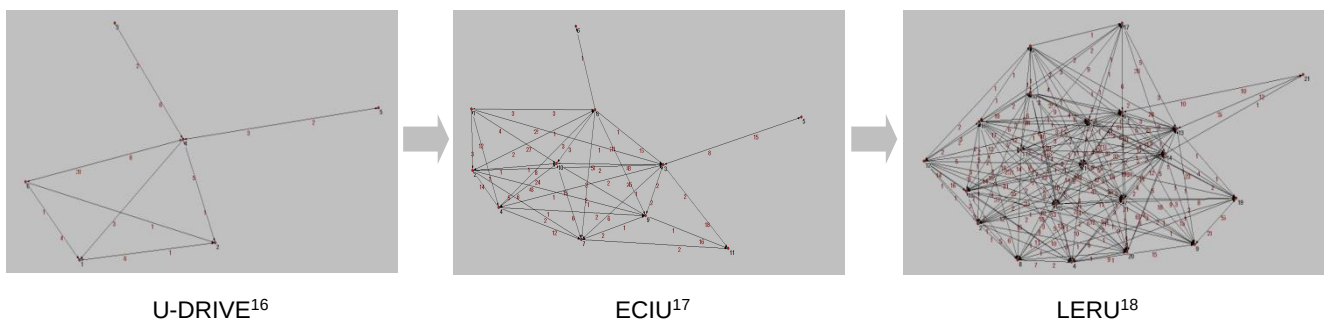
Source: author

At this point we need to reflect upon the equality of all Erasmus students during their mobility periods. The rapid rearrangement of student mobilities across Europe could result in a conflict with the current perception of the Erasmus programme among the university staff and students. According to our research, the analysed universities strongly emphasize the equality of all students during their educational process at the host university, regardless if their mobility is implemented as part of the ECIU consortium or any other mobility arrangement. No additional support or special classes should be arranged only to closed group of students, as this would be in direct opposition to the nature of the Erasmus student mobility programme (we put the emphasis on the word “nature”; the Erasmus mobility programme does not prohibit universities to develop the additional mobility documents or other support services only for the selected group of incoming students). The implementation of more structured mobility arrangements needs to take this viewpoint into the account and rather focus on the aspects of the consortium mobility, which actively contribute to better credit recognition rates (for instance the development of inter-organizational trust in the academic quality, more joint activities on various fields, not only the student mobilities, the open discussion about the performance of mobility partners, the awareness about the idiosyncratic dimension of language etc., see figure 6.1). At the first glance, this task seems extremely difficult; however the empirical analysis of the case study consortium shows that the goal of treating all the Erasmus students equally on the one side while following the aims of the higher education consortium on the other side is reachable.

¹⁵ The figure has been drawn with the functions of valued core and islands in the Pajek software.

The second part of the reflections focuses on the performed case study analysis. We have analysed one selected higher education consortium, the European Consortium of Innovative Universities. However, every higher education consortium has its own specific attributes, which could importantly influence the outcomes of the study. One of the most important network attributes in this respect is the network density. In chapter 6, we have discussed the relevance of the network density for the appearance of the consortium characteristics within the higher education consortium. According to our analysis, the consortium characteristics mostly appear within the universities, which are positioned in the densest part of the network. The appearance of the consortium characteristics then positively influences the credit recognition performance of the individual consortium member. Therefore, different development stages of the higher education consortia in regards to their network density could importantly determine the empirical results of the research. Figure 7.2 shows the examples of three different consortia according to their network density. We assume that consortium characteristics and consequently better credit recognition performance would be most clearly evident in the higher education consortium with densest cooperation activities (the LERU consortium). A follow-up comparative analysis of all three presented consortia would be needed to confirm or reject our prediction.

Figure 7.2: The example of development stages for the higher education consortium, in regards to the network density



Source: author

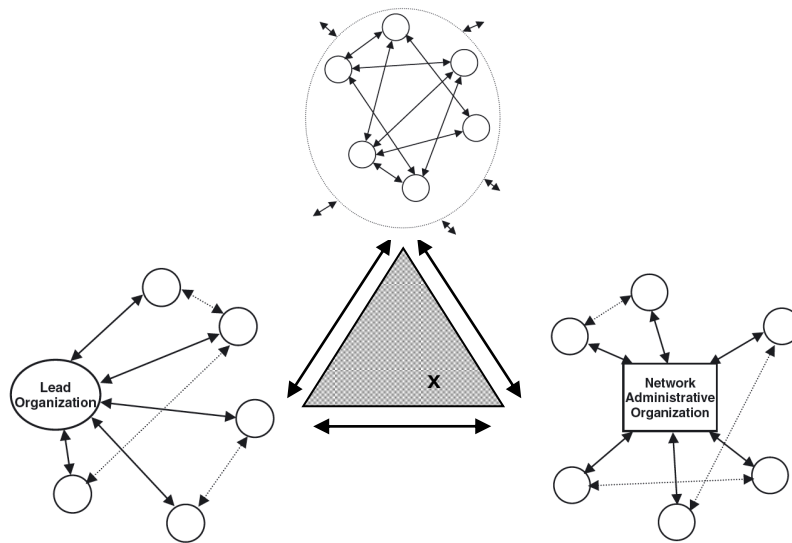
¹⁶ The Consortium of Universities of Applied Sciences for Development, Research, Innovation, Valorisation and Education (U-DRIVE) has been established in year 2012. It consists of 6 partner universities of applied sciences ("U-DRIVE," 2014). The network density of the Erasmus mobilities between the academic years 2007/2008 to 2011/2012 is 0,47.

¹⁷ For more information about the European Consortium of Innovative Universities (ECIU) see chapter 2. The network density of the Erasmus mobilities between the academic years 2007/2008 to 2011/2012 is 0,48.

¹⁸ The League of European Research Universities (LERU) has been established in year 2002. It consists of 21 partner universities ("League of European Research Universities (LERU)," 2014). The network density of the Erasmus mobilities between the academic years 2007/2008 to 2011/2012 is 0,64.

Next to the network density, we also reflect upon the influence of the network governance forms on the research outcomes. According to our theoretical framework, there are three types of network governance forms: shared governance, the lead organization and the network administrative organization (NAO) (Provan & Kenis, 2007). The most appropriate network governance form for the higher education consortium is the network administrative organization (see chapter 2). Only when the most appropriate governance form is used within the network, all beneficial aspects of the network cooperation could be fully exploited. For the higher education consortium, the NAO most successfully manages the number of network members, the trust issues among them, searches for the goal consensus and answers the need for the complex network-level competencies. However, the clear types of network governance forms exist solely in the theory. For better understanding of network governance we need to put all three network governance forms in a triangular shape. The angles of the figure present the theoretically defined governance forms. In practice, network governance forms appear rather in the shaded area of the triangle. Our empirical analysis confirms this finding. The ECIU is governed as the combination of the lead organization and the NAO. The NAO holds the majority of administrative tasks of the ECIU consortium (the coordination of meetings, network promotional activities etc.), while the role of the founding university decreases over the years. Moreover, some of the network activities are governed by the members themselves, such as student mobilities between the academic years 2007/2008 to 2011/2012. We therefore mark the position of the ECIU consortium in the bottom right corner of the “network governance triangle” (the sign x). Different positioning of the higher education consortium within such triangle could importantly reshape the outcomes of the study. The consortium, which is governed by clearer type of the network governance form, could for instance produce more beneficial outcomes for the consortium members (such as more clearly expressed consortium characteristics). Consequently, the individual partner universities would benefit from better credit recognition performance. Similarly, the less appropriate network governance forms could have an opposite effect. The follow-up research on different modes of governance in the higher education consortia would provide a deeper insight into the presented issue.

Figure 7.3: The network governance triangle



Source: adjusted from Kenis and Provan (2009, p. 447)

In the last part of the reflections we present the opportunities for the follow-up research. Two of them have already been discussed in this chapter and refer to the influence of network density and the network governance forms on the credit recognition performance. Hereby, we provide one additional proposal for the follow-up research. We have performed a qualitative interpretative research, which provides a reader with the valuable insight into the understanding of the processes within the consortium. The qualitative approach to the research has been necessary to get acquainted with the currently unexplored research object. However, the collected results are not statistically relevant. In order to generalize the results on all higher education consortia, we propose a follow-up quantitative research. The regression analysis of the data, which would be collected from multiple consortia, would reveal, if our conclusions are relevant for higher education consortia in general. The research model on figure 4.1 could also be tested with the structural equation modelling (SEM) techniques, such as the partial least squares approach (Monecke & Leisch, 2012). In chapter 4, we have already provided the operationalization of the theoretically identified variables. The calculated standardized values of the path coefficients among these variables would reveal the influence between the independent (consortium characteristics) and the dependent (credit recognition performance) variables of our model. Only after the relevancy of our discovery has been statistically confirmed on the entire population, the research outcomes could be put into the practice.

Last but not least, we provide some concluding thoughts to our research. The main aim of mobility cooperation among the universities is to offer not only the additional knowledge, but also a significantly different learning and social experience to their students. In the era of

economic and social globalisation such experience is of immense importance. The Erasmus mobility programme importantly contributes to this mission within the European Higher Education Area. However, at the same time the students are continuously affected with low credit recognition rates for their periods of studies abroad. The organization of mobilities within the higher education consortium offers a solution to the identified problem. Its primary benefit is in providing the controlled mobility experience, which is mostly based on the feelings of trust in the academic quality; and on the social mechanisms, which have developed due to the constant cooperation links among the mobility partners. Such accommodation of solutions to overcome the remaining problems of credit recognition should be closely considered for the continuing growth of the most popular European Union programme.

8. LITERATURE

- Anderson, E., & Weitz, B. (1992). The Use of Pledges to Build and Sustain Commitment in Distribution Channels. *Journal of Marketing Research*, 29, 18-34.
- Anderson, J. C., & Narus, J. A. (1990). A Model of Distributor Firm and Manufacturer Firm Working Partnerships. *Journal of Marketing*, 54, 42-58.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.
- Beerkens, E. (2004). *Global Opportunities and Institutional Embeddedness. Higher Education Consortia in Europe and Southeast Asia*. Enschede: CHEPS, University of Twente.
- Beerkens, M., & Vossensteyn, H. (2011). The Effect of the Erasmus Programme on European Higher Education. The Visible Hand of Europe. In J. Enders, H. F. de Boer & D. Westerheijden (Eds.), *Reform of Higher Education in Europe* (pp. 45-62). Rotterdam: Sense Publishers.
- Beugelsdijk, S., Koen, C., & Noorderhaven, N. (2009). A Dyadic Approach to the Impact of Differences in Organizational Culture on Relationship Performance. *Industrial Marketing Management*, 38, 312-323.
- Birtwistle, T. (2009). Towards 2010 (and Then Beyond) -The Context of the Bologna Process. *Assessment in Education: Principles, Policy & Practice*, 16(1), 55-63.
- . The Bologna Declaration. (1999, 18-19 June) Retrieved 20 October, 2013, from http://www.ehea.info/Uploads/Declarations/BOLOGNA_DECLARATION1.pdf
- Breznik, K., Skrbinjek, V., Law, K., & Đaković, G. (2013, 19-21 June). *On the Erasmus student mobility for studies*. Paper presented at the Active citizenship by knowledge management & innovation. Management, knowledge and learning international conference, Zadar, Croatia.
- Burley, D., Gnam, C., Newman, R., Straker, H., & Babies, T. (2011). Leveraging Higher Education Consortia for Institutional Advancement. *International Journal of Educational Management*, 26(3), 274-283.
- Commission, E. (2013). Erasmus+ Retrieved 12 December, 2013, from http://ec.europa.eu/programmes/erasmus-plus/index_en.htm
- Consortium Agreement on the Development of High Quality Collaborative Educational Programs 2 (2010 28.10.2010).
- Crosier, D., Purser, L., & Smidt, H. (2007). Trends V: Universities shaping the European Higher Education Area. Brussels: European University Association.
- de Moor, B., & Henderikx, P. (2013). *International Curricula and Student Mobility*. Leuven: League of European Research Universities.
- De Nooy, W., Mrvar, A., & Batagelj, V. (2011). *Exploratory social network analysis with Pajek (structural analysis in the social sciences)*. Cambridge: Cambridge university press.
- Denman, B. D. (2002). Globalisation and the Emergence of International Consortia in Higher Education. *Globalization*, 2(1).
- Denzin, N. K. (1978). *The Research Act: A Theoretical Introduction to Sociological Methods*. New York: McGraw-Hill.
- Dicle, E., Fellingier, J., Huang, L., Kalinic, I., Pisera, J., Trawińska, J., & Vinca, E. (2010). Problems of Recognition in Making Erasmus (PRIME 2010). Brussels: Erasmus Student Network.
- Dill, D. D. (1999). Academic Accountability and University Adaptation: The Architecture of an Academic Learning Organization. *Higher Education*, 38, 127-154.
- Directorate-General for Education and Culture, E. C. (2013). The Erasmus programme Retrieved May 28, 2013, from http://ec.europa.eu/education/lifelong-learning-programme/erasmus_en.htm
- EACEA. (2014). ECTS and Diploma Supplement Labels Retrieved 25 March 2014, 2014, from http://eacea.ec.europa.eu/llp/support_measures_and_network/ects_dsl_en.php
- ECIU. (2013). *European Consortium of Innovative Universities Brochure*. Enschede: European Consortium of Innovative Universities.

- ECIU. (2014). ECIU Exchange webpage Retrieved 14 March, 2014, from <http://eciueexchange.com>
- Education and Culture DG. (2009). ECTS Users' Guide Retrieved 25 October, 2013, from http://ec.europa.eu/education/lifelong-learning-policy/doc/ects/guide_en.pdf
- Enders, J., de Boer, H. F., & Westerheijden, D. F. (Eds.). (2011). *Reform of Higher Education in Europe*. Rotterdam: Sense Publishers.
- . The Erasmus University Charter. (2014) Retrieved 3 February, 2014, from http://eacea.ec.europa.eu/static/en/overview/overview_erasmus_ic_reform/erasmus_university_charter_info.htm
- European Commission. (2011). Supporting Growth and Jobs - an Agenda for the Modernisation of Europe's Higher Education Systems. *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions* COM(2011) 567 final. Retrieved 2 August, 2013, from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0567:FIN:EN:PDF>
- European Commission. (2013, 9 July 2013). European Credit Transfer and Accumulation System (ECTS) Retrieved 25 October, 2013, from http://ec.europa.eu/education/lifelong-learning-policy/ects_en.htm
- . European Consortium of Innovative Universities. (2013) Retrieved 18 November, 2013, from <http://eciu.web.ua.pt/>
- Fiala, R., Prokop, M., & Živělová, I. (2012). The Relationship between Inter-organizational Trust and Performance. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 60(4), 89-98.
- Finch, D., McDonald, S., & Staple, J. (2013). Reputational Interdependence: an Examination of Category Reputation in Higher Education. *Journal of Marketing for Higher Education*, 23(1), 34-61.
- Garvin, D. A. (1993). Building a Learning Organization. *Harvard Business Review*, 71(4), 78-91.
- Gertler, M. S. (2003). Tacit Knowledge and the Economic Geography of Context, or The Undefined Tacitness of Being (there). *Journal of Economic Geography*, 3, 75-99.
- Giddens, A. (1979). *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis*. London: Macmillan.
- Granovetter, M. (1985). Economic Action and Social Structure: The Problem of Embeddedness. *American Journal of Sociology*, 91(3), 481-510.
- Granovetter, M. (1992). Problems of Explanation in Economic Sociology. In N. Nohria & R. G. Eccles (Eds.), *Networks and Organizations: Structure, Form, and Action* (pp. 25-56). Boston: Harvard University Press.
- Gulati, R., & Nickerson, J. A. (2008). Interorganizational Trust, Governance Choice, and Exchange Performance. *Organization Science*, 19(5), 688-708.
- Hawe, P., Webster, C., & Shiell, A. (2004). A glossary of terms for navigating the field of social network analysis. *Journal of epidemiology and community health*, 58(12), 971-975.
- HEION. (2014). HEION Project - Higher Education Institutions Online for ECTS Retrieved 4 February, 2014, from <http://heion.eu/>
- Hénard, F., Diamond, L., & Roseveare, D. (2012). *Approaches to Internationalisation and Their Implications for Strategic Management and Institutional Practice*. Paris: OECD.
- Holstein, J. A., & Gubrium, J. F. (1997). Active Interviewing. In D. Silverman (Ed.), *Qualitative Research. Theory, Method and Practice*. London: Sage Publications.
- Huber, G. P. (1991). Organizational Learning: The Contributing Processes and the Literatures. *Organization Science*, 2(1), 88-115.
- Jones, C., Hesterly, W. S., & Borgatti, S. P. (1997). A General Theory of Network Governance: Exchange Conditions and Social Mechanisms. *The Academy of Management review*, 22(4), 911-945.
- Kenis, P., & Provan, K. G. (2009). Towards an Exogenous Theory of Public Network Performance. *Public Administration*, 87(3), 440-456.

- Knight, J. (2007). Internationalization: concepts, complexities and challenges. In J. J. F. Forest & P. G. Altbach (Eds.), *International Handbook of Higher Education* (pp. 207-227): Springer.
- Knight, J., & de Wit, H. (Eds.). (1997). *Internationalization of Higher Education in Asia-Pacific Countries*. Amsterdam: European Association for International Education.
- Kroeger, F. (2012). Trusting Organizations: The Institutionalization of Trust in Interorganizational Relationships. *Organization*, 19(6), 743-763.
- . League of European Research Universities (LERU). (2014) Retrieved 22 January, 2014, from <http://www.leru.org/index.php/public/home/>
- . Leuven and Louvain-la-Neuve Communiqué. (2009) Retrieved 20 October, 2013, from http://www.ehea.info/Uploads/Declarations/Leuven_Louvain-la-Neuve_Communique%C3%A9_April_2009.pdf
- . London Communiqué. (2007, 17-18 May) Retrieved 20 October, 2013, from http://www.ehea.info/Uploads/Declarations/London_Communique18May2007.pdf
- . Maastricht Treaty. (1992) Retrieved 14 January, 2014, from <http://eur-lex.europa.eu/en/treaties/dat/11992M/htm/11992M.html>
- Marginson, S., & van der Wende, M. (2007). Globalisation and higher education *Education Working Paper No. 8*. Paris: Organization for Economic Cooperation and Development.
- Merriam, S. B. (2002). *Qualitative Research in Practice: Examples for Discussion and Analysis*. San Francisco: Jossey-Bass.
- Michelson, G., & Mouly, S. (2000). Rumour and Gossip in Organizations: A Conceptual Study. *Management Decision*, 38(5), 339-346.
- Miller, J., & Glassner, B. (1997). The Inside and the Outside: Finding Realities in Interviews. In D. Silverman (Ed.), *Qualitative Research. Theory, Method and Practice*. London: Sage Publications.
- Monecke, A., & Leisch, F. (2012). semPLS: Structural Equation Modelling using Partial Least Squares. *Journal of Statistical Software*, 48(3), 1-32.
- Nokkala, T. (2004). *Discursive Construction of the Role of the Universities as National and International Institutions in the European Higher Education Area*. Paper presented at the Transformations experienced by Higher Education and Research Institutions in European Countries, First International Euredocs Conference, Paris. http://euredocs.sciences-po.fr/en/conference/2004/terhi_nokkala.pdf
- Nonaka, I. (1994). A Dynamic Theory of Organizational Knowledge Creation. *Organization Science*, 5(1), 14-37.
- NUFFIC. (2014). The European Area of Recognition - Higher Education Institutions (EAR HEI) Project Test Phase. Follow-up Project of the EAR Manual Project 2012 Retrieved 3 February, 2014, from <http://www.nuffic.nl/en/diploma-recognition/diploma-recognition/ear-hei-test-phase>
- Olsen, J. P. (2005). *The institutional Dynamics of the (European) University*. ARENA - Centre for European Studies, University of Oslo. Retrieved from <http://www.arena.uio.no>
- Papatsiba, V. (2005). Political and individual rationales of student mobility: A case-study of ERASMUS and a French Regional Scheme for Studies Abroad. *European journal of education*, 40(2), 173-188.
- Papatsiba, V. (2006). Making Higher Education more European through student mobility? Revisiting EU Initiatives in the Context of the Bologna process. *Comparative Education*, 42(1), 93-111.
- Pinheiro, R., Benneworth, P., & Jones, G. A. (2012). Understanding Regions and the Institutionalization of Universities. In R. Pinheiro, P. Benneworth & G. A. Jones (Eds.), *Universities and Regional Development. A Critical Assessment of Tensions and Contradictions*. Oxford: Routledge.
- Provan, K., & Kenis, P. (2007). Modes of Network Governance: Structure, Management, and Effectiveness. *Journal of public administration research and theory*, 18(2), 229-252.
- Provan, K., Veazie, M., & Staten, L. (2005). The use of network analysis to strengthen community partnerships. *Public administration review*, 65(5), 603-613.

- Rodríguez del Bosque Rodríguez, I., Collado Agudo, J., & San Martín Gutiérrez, H. (2006). Determinants of Economic and Social Satisfaction in Manufacturer-Distributor Relationships. *Industrial Marketing Management*, 35, 666-675.
- Savenye, W. C., & Robinson, R. S. (2005). Using Qualitative Research Methods in Higher Education. *Journal of Computing in Higher Education*, 16(2), 65-95.
- Schreiner, M., Kale, P., & Corsten, D. (2009). What Really is Alliance Management Capability and how does it impact Alliance Outcomes and Success? *Strategic Management Journal*, 30, 1395-1419.
- Scott, W. R. (1994). Institutions and Organizations: Toward a Theoretical Synthesis. In W. R. Scott & J. W. Meyer (Eds.), *Institutional Environments and Organizations: Structural Complexity and Individualism*: Sage.
- Simpson, L. (2011). *The Management and Impact of International Rankings on Reputation in Higher Education*. Master of Philosophy, University of Manchester, Manchester. Retrieved from <https://www.escholar.manchester.ac.uk/api/datastream?publicationPid=uk-ac-man-scw:132370&datastreamId=FULL-TEXT.PDF>
- . Sorbonne Joint Declaration. (1998, 25 May) Retrieved 20 October, 2013, from http://www.ehea.info/Uploads/Declarations/SORBONNE_DECLARATION1.pdf
- Sursock, A., & Smidt, H. (2010). Trends 2010: A Decade of Change in European Higher Education. In E. U. Association (Ed.), *EUA Publications 2010* (pp. 126). Brussels: European University Association.
- Sydow, J., & Windeler, A. (2003). Knowledge, Trust, and Control. Managing Tensions and Contradictions in a Regional Network of Service Firms. *International Studies of Management & Organizations*, 33(2), 69-99.
- Teichler, U. (1996). Student Mobility in the Framework of ERASMUS: Findings of an Evaluation Study. *European Journal of Education*, 31(2), 153-179.
- Teichler, U. (2009). Internationalization of Higher Education: European Experiences. *Asia Pacific Education Review*, 10, 93-106.
- Thomson, A. M., & Perry, J. L. (2006). Collaboration Processes: Inside the Black Box. *Public Administration Review*, 66, 20-32.
- . U-DRIVE. (2014) Retrieved 22 January, 2014, from <http://www.saxion.nl/over/persberichten/europese%20hogescholen%20bundelen%20krachten%20in%20consortium/>
- Uzzi, B. (1996). The Sources and Consequences of Embeddedness for the Economic Performance of Organizations: The Network Effect. *American Sociological Review*, 61(4), 674-698.
- Uzzi, B. (1997). Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness. *Administrative Science Quarterly*, 42, 35-67.
- Van Vught, F. (2008). Mission Diversity and Reputation in Higher Education. *Higher Education Policy*, 21, 151-174.
- Vossensteyn, H., Beerkens, M., Cremonini, L., Besançon, B., Focken, N., Leurs, B., . . . de Wit, H. (2010). Improving the Participation in the Erasmus Programme. In A. M. Nogueira (Ed.), (pp. 148). Brussels: European Parliament.
- Wasserman, S., & Faust, K. (1994). *Social network analysis. Methods and applications*: Cambridge university press.
- West, A., & Barham, E. (2009). Student Mobility, Qualifications and Academic Recognition in the EU. *Assessment in Education: Principles, Policy & Practice*, 16(1), 25-37. doi: 10.1080/09695940802704062
- Williamson, O. E. (1975). *Markets and Hierarchies: Analysis and Antitrust Implications: A Study in the Economics of Internal Organization* New York: The Free Press.
- Zaheer, A., McEvily, B., & Perrone, V. (1998). Does Trust Matter? Exploring the Effects of Interorganizational and Interpersonal Trust on Performance. *Organization Science*, 9(2), 141-159.

9. APPENDICES

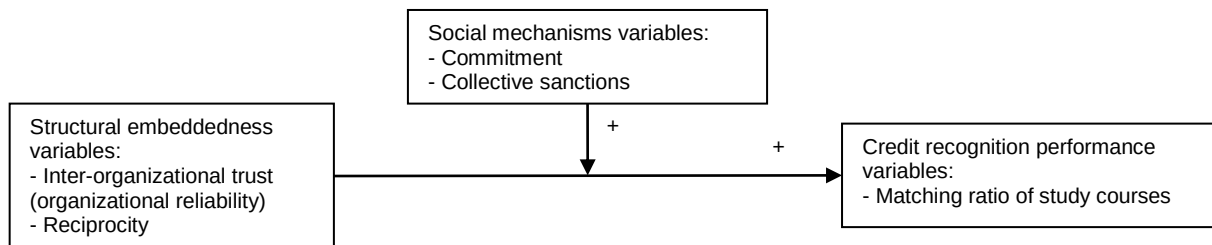
Appendix 9.1: ECIU consortium members

University (country)	Erasmus ID code	Vertex No.
Aalborg University (Denmark)	ALBORG01	650
Autonomous University of Barcelona (Spain)	BARCEL002	764
University of Aveiro (Portugal)	AVEIRO01	2153
Compiègne University of Technology (France)	COMPIEG01	1126
Dublin City University (Ireland)	DUBLIN04	1903
Hamburg-Harburg University of Technology (Germany)	HAMBURG03	450
Lodz University of Technology (Poland)	LODZ02	2341
Linköping University (Sweden)	LINKOPI01	2583
University of Stavanger (Norway)	STAVANG01	2075
University of Strathclyde (UK)	GLASGOW02	2921
Twente University (the Netherlands)	ENSCHED01	2108

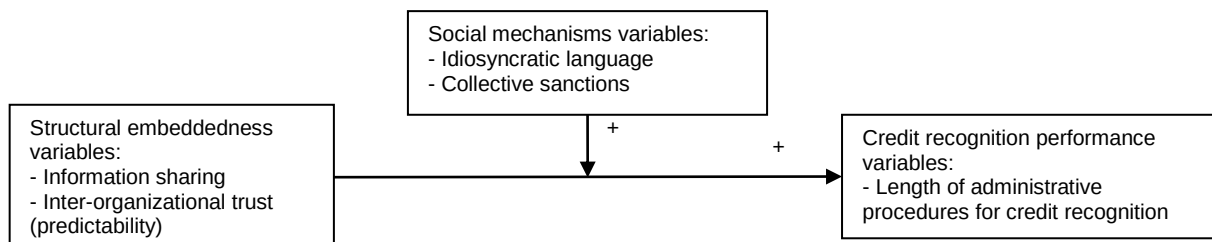
Source: ("European Consortium of Innovative Universities," 2013)

Appendix 9.2: Subordinate research models, which explain correlations between identified independent, intermediary and dependent research variables

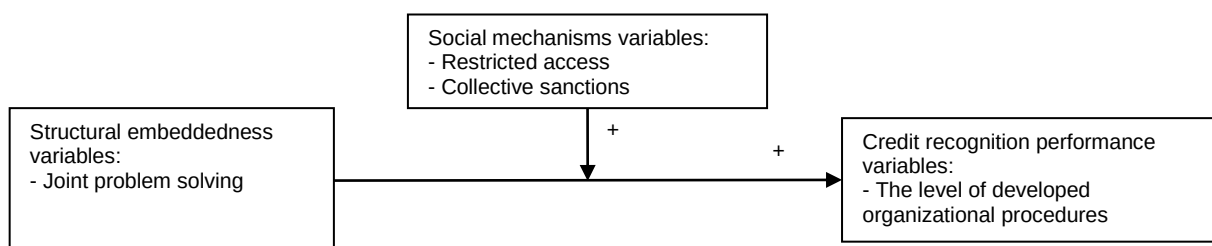
Subordinate research model 1



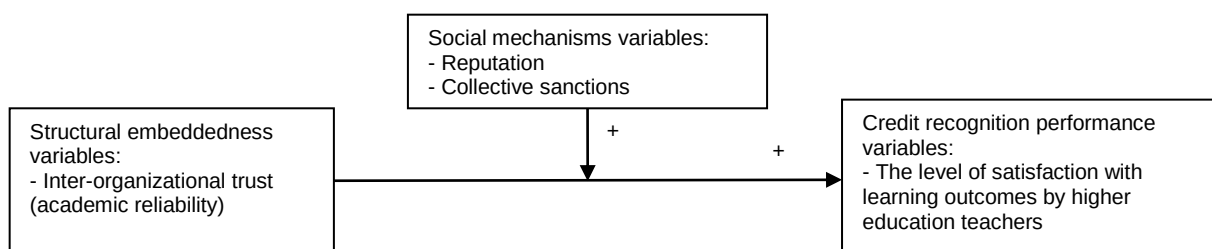
Subordinate research model 2



Subordinate research model 3



Subordinate research model 4



Appendix 9.3: Detailed information about the implemented interviews with the ECIU representative universities and the ECIU headquarters

No.	Type of institution (network position)	Work position	Interview date	Start and end of the interview (duration)	Type of channel	Request for final research
1	New member	Erasmus Exchange Coordinator	18.3.2014	10:01-11:02 (1 hour 1 minute)	Telephone	Yes
2	Old member & importer	/	/	/	/	/
3	Exporter	Head of the Office, Unit for Internationalization of Education Head of the ECIU Student Mobility Working Group	28.3.2014	15:02-15:50 (48 minutes)	Skype	Yes
4	Balanced mobility flows	Head of the University's Mobility and Career Services	21.2.2014	14:32-15:23 (51 minutes)	Telephone	Yes
5	Low network centrality & the network isolate	Academic officer at the International Office (acting Head of the Department)	19.3.2014	15:01-15:45 (44 minutes)	Telephone	Yes
6	High network centrality	Erasmus Institutional Coordinator at the International Office	13.3.2014	13:32-14:12 (40 minutes)	Telephone	Yes
7	ECIU headquarters	ECIU headquarters secretary	14.3.2014	12:03-12:46 (43 minutes)	Skype	Yes

Appendix 9.4: Track of interview changes

Inductive research method enables us to adjust the data collection tool (in our case the interview questionnaire) prior as well as during the research process. In this manner, we are provided with the opportunity to collect only relevant data, as well as to attain all required data in a most efficient way. However, such approach requires from researcher to track and collect all changes which have been made to the data collection tool. We have decided to make changes to the interview questionnaire only prior to the empirical analysis. Possible changes of the interview questionnaire during the empirical analysis would namely disable us to compare the obtained data. The initial interview has been tested with two interviewees, which ensures the internal validity of the research. Firstly, the draft of the interview has been tested with the Head of the International Office of one of the higher education institutions in the Republic of Slovenia (not member of the ECIU consortium). Secondly, the corrected draft of the interview has been tested with the Erasmus Institutional Coordinator at the International Office at one of the ECIU consortium members. Based on the results of these interviews the following changes have been introduced to the final form of the interview: 1. Introductory questions have been added to the interview questionnaire in order to collect more comprehensive information about the interviewee; 2. Questions have been formed in more semi-structured manner (they included more detailed description of the analysed variable); 3. The word *institution* has been changed to the word *university* or *the consortium member*, when we referred to the universities, which are partners of the selected case study consortium; 4. The word *proportion* has been changed to the word *percentage* for easier understanding of the question; 5. Unstructured questions have been offered only at the end of the interview; 6. Commitment and reputation variables have been expanded with additional questions, which provide information about possible differences when student mobilities are performed within the ECIU consortium; 7. The set of additional final three questions have been designed. These questions expand the understanding of the research topic outside the proposed research model. All introduced changes enable the attainment of most relevant research data in an efficient manner. Moreover, at the same time we follow the necessity to collect the comparable empirical data among the selected representative ECIU universities.

Appendix 9.5: Interview questionnaire for the consortium member institutions

Dear Interviewee, thank you for participating in the research on student mobility within the European Consortium of Innovative Universities. With this research we aim to analyse how consortium characteristics influence credit recognition performance at the individual consortium partner. The interview takes approximately one hour. With your approval we will record this interview. Your anonymity as well as the anonymity of your institution is guaranteed.

All questions relate to **the Erasmus student mobility for studies in the academic years 2007/2008 to 2011/2012**. Please provide us your viewpoint on each stated question.

Start of the interview: __ : __

Introductory questions

1. What is your workplace?
2. How many years of working experience with Erasmus student mobilities do you have?
3. How are you involved with credit recognition processes at your university? What tasks do you do?
4. How familiar are you with the European Consortium of Innovative Universities?

Structural embeddedness questions

Information sharing

1. In general, what types of supporting documents (such as the Learning Agreement, the Transcript of Records, course catalogues, course syllabuses) or practices (such as course packages, mobility windows), you use in credit recognition processes at your university? Are the information provided with these documents enough for credit recognition? What additional information do you search for?
2. Do you use any specific documents for credit recognition when students do their mobility at the ECIU partner universities?
3. Do you share more information about study courses with the ECIU partners than with the other mobility partners? In which manner?
4. Is the duration of credit recognition procedures shorter, the same or longer within the ECIU consortium than with other mobility partners? Why?

Joint problem solving

1. In general, what organizational rules (such as the Memorandum of Understanding; the Book of Rules and Procedures on Student Mobility; the Rules on Establishing the Learning Agreement) do you use at your work for the Erasmus exchange?
2. What organizational rules that we have listed, or additional ones are provided by the ECIU headquarters?
3. Do you use these consortium organizational rules in the credit recognition procedures at your university?
4. With these additional rules, are (would) your procedures for credit recognition (be) less, equally or more developed?

Inter-organizational trust

1. In general, do mobility partners deliver study courses as promised in the initial Learning Agreement?
2. What percentage of all courses from the Learning Agreement is successfully completed?
3. Is this percentage lower, the same or higher when student performs his or her Erasmus exchange on some of the ECIU partners? Why?
4. Now let us focus on the education quality of the study courses, taken by students during their Erasmus exchange. In general, is the level of good quality?
5. Do you think the education quality is lower, the same or higher at the ECIU partners? What do you think is the reason for this?

Reciprocity

1. Do you provide study courses for Erasmus students (as listed in the Learning Agreement), even if the number of students for these study courses is lower than the norm at your university?
2. Would your decision be anyhow different for Erasmus students from the ECIU partners? Why?
3. Now let us focus on study courses offered to Erasmus students. How does your university decide which study courses will be offered to the Erasmus students?
4. Is the number of study courses, which are offered to the Erasmus students lower, the same or higher for students from the ECIU partners? Do you make any difference between the Erasmus students in this respect?

Social mechanisms questions

Commitment

1. In general, how often do you decide to sign the Learning Agreement in order to maintain the partnership relations with the mobility partner, even if this would present additional costs to your university (because of the increased workload of teachers for instance)?
2. Does this happen less often, the same or more often for student mobilities with the ECIU partners?
3. In case you cannot offer the desired study courses, do you generally help mobility students to adjust the Learning Agreement? How?
4. Is this help provided less often, the same or more often for students, which come from the ECIU partners?
5. Now let us turn to another aspect of commitment. How often do you recommend your students to go to the specific host university: never, sometimes, often or always?
6. How often do you recommend potential Erasmus students to go to the ECIU partners: never, sometimes, often or always?

Idiosyncratic language

1. How long does it take you to prepare the Learning Agreement from the beginning until the signature?
2. Does it take shorter, the same or longer for Erasmus exchanges with one of the ECIU partners? Why?
3. How often does it happen that you need to contact partner university for additional information (about study courses, course syllabuses etc.) before signing the Learning Agreement?
4. Do you request or search for additional information less often, the same or more often for student exchanges with the ECIU partner?

Restricted access to exchanges

1. How do you get more detailed description about the study courses of partner universities (for instance via e-mail, website of partner universities, printed material – presentation brochures etc.)? How does your university provide such information to other Erasmus partners?
2. Do you get more detailed description of study courses in any different manner from the ECIU members?
3. Do you have more automatic credit recognition procedures for universities, for which you are more familiar with the study courses?
4. Are credit recognition processes less automatic, the same or more automatic when students performs an Erasmus exchange at one of the ECIU partners? Why?

Collective sanctions

1. In general, what sanctions do you use in case of insufficient administrative and academic performance of the mobility partners (the exclusion from further mobilities, gossiping to other mobility partners, the exclusion from information sharing etc.)?
2. How often do you communicate with mobility partners about the performance of other partners?
3. Is the information about weak performance less accessible, the same or more accessible between the ECIU mobility partners?
4. In your daily work on credit recognition, does the information of weak administrative or academic performance play any role on your work? How?
5. Let us now focus only on the Erasmus exchange with the ECIU consortium members. Do you think this type of information is less relevant, the same or more relevant? Why?

Reputation

1. How often do you recognize study credits based also on the image of the mobility partner in your eyes?
2. Does this happen less often, the same or more often when the Erasmus exchange is made with one of the ECIU partners?

Final, unstructured questions

1. After having discussed the identified topics, would you like to additionally comment on them?
2. Do you want to address any other issue regarding the credit recognition processes at your university or the partnership in mobility networks?

Final question – expanding the understanding of the research topic, triangulation method

1. What role would you say has the ECIU consortium and its services on your daily work?
2. What do you think are the advantages of doing the Erasmus student mobility inside the consortium, from your perspective?
3. If I were your Erasmus student, coming back from one of the ECIU partner universities, in which manner would my credit recognition process differ from being an Erasmus student to the other mobility partners outside the ECIU consortium?

End of the interview: __ : __

Please let us know if you are interested in the research outcomes. We are happy to provide them on your e-mail address. E-mail address: _____

Appendix 9.6: Interview questionnaire for the consortium headquarters

Dear Interviewee, thank you for participating in the research on student mobility within the European Consortium of Innovative Universities. With this research we aim to analyse how consortium characteristics influence credit recognition performance at the individual consortium partner. The interview takes approximately one hour. With your approval we will record this interview. Your anonymity as well as the anonymity of your institution is guaranteed.

All questions relate to the role of the consortium headquarters in the **Erasmus student mobility for studies in the academic years 2007/2008 to 2011/2012**. Please provide us your viewpoint on each of the stated questions.

Start of the interview: __: __

Introductory questions

1. What is your workplace? Please describe your work obligations.
2. How many years of working experience within the consortium do you have?
3. How familiar are you with the Erasmus student mobility inside the consortium?

Structural embeddedness questions

Information sharing

1. In general, what types of supporting documents (such as course catalogues of partners, course syllabuses etc.) or practices (such as course packages, mobility windows), do you provide to the consortium members for mobility purposes? Please describe them.
2. Has the ECIU developed any specific documents for credit recognition purposes for its members? If yes, which documents?
3. Does the ECIU headquarters collect the information about the duration of credit recognition procedures at member universities?

Joint problem solving

1. What organizational rules for the Erasmus exchange (such as the Memorandum of Understanding; the Book of Rules and Procedures on Student Mobility; the Rules on Establishing the Learning Agreement) do you provide to the consortium members?
2. Do these rules address the credit recognition procedures at member universities?
3. Do the ECIU headquarters collect the information if these additional rules are actually incorporated at member universities?

Inter-organizational trust

1. How do ECIU headquarters support the education quality of the study courses at consortium members?
2. Does the ECIU headquarters collect the information if members deliver study courses as promised in the Learning Agreement? How? And the information about the percentage of courses from the Learning Agreement that are successfully completed? How?

Reciprocity

1. Do you provide financial, organizational or other kind of support to member universities to implement the requested study courses for Erasmus students (in case of insufficient number of students for the specific study course, high teaching costs per student etc.)?
2. Do you advice members to provide the specific study courses for Erasmus mobility?
3. Do you have rules regarding the number of study courses, which need to be offered to the Erasmus students among members?

Social mechanisms questions

Commitment

1. How does the ECIU headquarters maintain partnership relations among its members (for instance regular meetings of international offices, newsletters, Erasmus mobility brochures etc.)? Please focus only on the Erasmus student mobility activities. How often do you perform these activities?
2. Do you hold any promotional activities where you recommend students of the consortium members to attend the Erasmus student mobility inside the ECIU consortium?

Idiosyncratic language

1. Do consortium members ask you for the help in order to gain additional information about other consortium members? What additional information do they search for?

Restricted access to exchanges

1. How does the ECIU headquarters provide more detailed description about the study courses of member universities (for instance via e-mail correspondence, website, intranet, printed material – presentation brochures etc.)?
2. Does the ECIU headquarters have an intranet or any other restricted area for information sharing?

Collective sanctions

1. In general, what sanctions do you use in case of insufficient administrative and academic performance of consortium members (the exclusion from further mobilities, the exclusion from information sharing etc.)?
2. Do you offer any opportunities to discuss these issues among members? Please describe them. How often do you communicate with consortium members about the performance?
3. Do you think the ECIU consortium members find this type of information relevant and important? Do they request it from the ECIU headquarters?

Reputation

1. In general, what do you think is the general image of consortium members in the eyes of other consortium members regarding their academic and administrative performance?

Final, unstructured questions

1. After having discussed the identified topics, would you like to additionally comment on them?
2. Do you want to address any other issue regarding the Erasmus student mobility inside the ECIU consortium?

Final section - expanding the understanding of the research topic, triangulation method

1. What other type of support does the consortium provide to the partners regarding the Erasmus student mobility?
2. What role would you say the ECIU consortium and its services have on the daily work of your members (regarding the Erasmus student mobility)?
3. How does the ECIU headquarters collect the feedback about its activities from the members? How often do you collect the feedback? Does this include questions about the Erasmus student mobility? Do you require members to evaluate the consortium by comparing it to other partner universities which are not part of the ECIU?

End of the interview: __: __: __

Please let us know if you are interested in the research outcomes. We are happy to provide them on your e-mail address. E-mail address: _____