Global Opportunities and Institutional Embeddedness: Cooperation in Higher Education Consortia

ERIC BEERKENS

1. Introduction

This paper presents the findings of a recently finished research project on globalisation and the changing nature of international cooperation in higher education (Beerkens 2004). The study focuses on international inter-organisational arrangements and attempts to identify critical features of a specific type of inter-organisational arrangement: the Higher Education Consortium. Higher education consortia can be defined as multi-point groupings of organisations with limited amounts of members and where membership is restricted to particular organisations allowed by the other partners to enter the arrangement (Beerkens 2002). They also have an indefinite time-span, therefore they are not meant to be dissolved at a particular moment. Cooperation takes place in several activities, covering multiple disciplines and/or themes. International higher education consortia can be seen as horizontal arrangements between higher education institutions based on equity where collaboration takes place through coordination. The arrangements exceed loose cooperation, since an additional administrative layer is created above the participating organisations. On the other hand, the arrangements are not meant to lead to amalgamation, at least not in the foreseeable future.

The starting point of this study was the assumption that the nature of internationalisation activities in higher education has changed and that the emergence and increase of international higher education consortia

was related to processes of globalisation and regionalisation. To provide a sound background for the study of higher education consortia, the meaning of the concepts of globalisation and regionalisation and their relation to (international cooperation in) higher education were first analysed. In the literature, globalisation appears to be approached from different temporal perspectives. These approaches are identified as geographical, political, cultural, and institutional in nature. On the basis of these approaches globalisation is defined as a process in which basic social arrangements become disembedded from their spatial context due to the acceleration, massification, and flexibility of transnational flows of people, products, finance, images, and information (Beerkens 2003). This process is also apparent in basic social arrangements within and outside universities. Regionalisation was approached as a subset of globalisation, where a similar process of disembedding occurs, but where arrangements become re-embedded in a regional context. Although it is argued that globalisation and regionalisation processes are significant, one also must acknowledge that in many ways, society is still very much rooted in nationally constructed institutions. This is especially true for universities, the majority of which were established and developed in a national institutional context. The study shows that this paradox – in which universities face global opportunities while being strongly embedded in national institutional environments – also becomes apparent in higher education consortia.

The study is interdisciplinary, relating approaches from international political economy to theories in the fields of public and business administration. The empirical analysis was based on four case studies of higher education consortia in Europe and Southeast Asia. This paper situates the subject of study in the contemporary context of globalisation and ongoing regional integration and provides a theoretical framework for inter-organisational cooperation in higher education. On the basis of the results of the empirical data analysis, answers to the research questions are provided, the theoretical notions are confronted with reality, and the conclusions of the study are presented. This paper mainly attempts to explore what features of international higher education consortia can explain the performance of these consortia and looks at the types of mechanisms that can be adopted by international higher education consortia to increase performance.

2. Higher education consortia in a global environment: the paradox of cooperation

For the study of cooperation between organisations, various disciplinary perspectives can be applied. There are theories from policy studies and political science on policy networks, perspectives on cooperation from international relations theorists, approaches from sociology such as social network analysis, and psychological and anthropological perspectives on cooperation. Various studies on cooperation have also been conducted in the field of higher education research. An exploration of approaches in various disciplines ultimately led to theories from strategic management and international business. Here, after the strong increase in inter-firm constellations such as strategic alliances and joint ventures in the 1980s, a wide range of studies on international cooperation between firms has emerged. In examining determinants of consortium performance, the study focuses on a unique aspect associated with the characteristics of partners involved in an alliance, namely inter-organisational diversity (Parkhe 1991). An interesting paradox, which forms the core of the argument, is that alliances or consortia are based on both compatibility as well as complementarity. It is suggested that performance is likely to be enhanced when organisations are able to manage the paradox involved in choosing a partner that is different, yet similar. Different in the sense that the resources of the universities in a consortium are complementary to each other; similar, in that the backgrounds of the participating universities are compatible with each other. Successful consortia thus require partners who process similar characteristics on certain dimensions and dissimilar characteristics on others.

This principle can be traced back to two theoretical perspectives on firms, or in this case, universities. The idea that organisations cooperate to gain access to resources finds its origins in the resource based view of the firm (RBV). In the RBV (Wernerfelt 1984; Barney 1991), organisations are seen as a bundle of resources. The RBV introduced an alternative perspective for the prevailing models of strategic management in the 1980s, where analysing a firm's opportunities and threats in the competitive environment was emphasised (Caves and Porter 1977; Porter 1980, 1985). This model claims that firms within a particular industry are identical in terms of the resources they control and the strategies they pursue and that, where heterogeneity occurs, this will be very short lived because resources are highly mobile. According to Barney (1991), the RBV substitutes these for two alternative assumptions. First, it assumes that firms within an industry may be heterogeneous with respect to the strategic resources they control. Second, the perspective assumes these

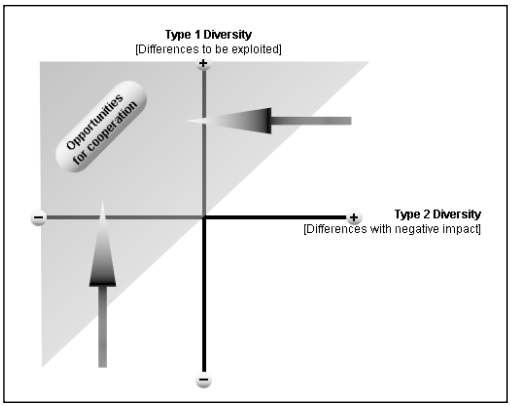
resources may not be perfectly mobile across firms, and thus heterogeneity can be long lasting. The RBV thus suggests that a degree of heterogeneity tends to be sustained over time (Peteraf 1993). Some resource characteristics that prevent firms from moving toward resource homogeneity have been identified as: imperfect mobility, imperfect imitability, and imperfect substitutability (Barney 1991). The resource-based view claims that the rationale for alliances is the value-creation potential of firm resources that are pooled together (Das and Teng 2000). Reciprocal strengths and complementary resources, or a 'fit' between partners are identified as a premise for successful consortia. A key implication of the RBV is that organisations will search for partners that bring about some sort of fit or synergy between their resources and those of their targeted partner. This view can also be applied to cooperation between universities. The strategic resources of a university interesting to international partners can be very diverse, ranging from physical resources such as research facilities or library collections to educational resources such as specific programmes or teaching methods, human resources, or more symbolic organisational resources such as reputation and prestige. Although these are not traded on factor markets, these can be accessed through engaging in a cooperative arrangement.

The theoretical origins of the second issue – compatibility – can be traced back to economic sociology. The argument that more compatible partners will be more successful in collaboration is related to Evans' (1963) 'similarity hypotheses': the more similar the parties, the more likely a favourable outcome. While the resource-based view propagates an economic rational perspective on organisational behaviour, sociological theories look upon the university as an institution embedded in powerful cognitive, normative, and regulative structures (Scott 1995). In neo-institutional and embeddedness theories, the social, political, and cultural environment is included. Much of embeddedness research seeks to demonstrate that market exchange is embedded in larger and more complex social processes. This builds on Polanyi's (1944) notion of embeddedness which puts forward that "the human economy is embedded and enmeshed in institutions, economic and noneconomic". The institutional embeddedness of organisations provides opportunities as well as constraints for their behaviour. On the one hand, the context in which they are embedded, provides them legitimacy, clarity, relationships with their stakeholders etc. On the other hand, it places organisations in an 'institutional straightjacket' or an 'iron cage' (DiMaggio and Powell 1983). This is what Uzzi labels the paradox of embeddedness: the same processes by which embeddedness creates a requisite fit with the current environment can reduce an organisation's ability to adapt (Uzzi 1997, p.

57). In this way, traditional 'core competencies' have the potential to become 'core rigidities' that inhibit subsequent adaptation and success (Leonard-Barton 1992). If applied to inter-organisational combinations, this notion claims that differences in the organisations' institutional environments can impact cooperation in a negative way. Interorganisational differences that can frustrate the performance of the collaboration are frequently related to the historical conformance of universities to their national institutional environment and to organisational structures, procedures, and routines that have emerged and become institutionalised in this national context.

The resulting paradox of cooperation becomes even more apparent if Parkhe's (1991) terminology of Type I and Type II diversity is used. The former refers to diversity in resources, which positively affects the performance of cooperation. The latter type entails the differences in institutional contexts in which the universities are embedded and is assumed to negatively influence cooperation. This paradoxical situation is illustrated by figure 1.

Figure 1: The paradox of cooperation



The problem with the theoretical framework above however, is that once a consortium is established, its level of performance would be set (as long as the composition of members would not change). However, like any other organisation, a consortium can adapt to changing circumstances. In other words, consortia can employ mechanisms to enhance compatibility and complementarity in situations where these are not optimal. Mechanisms to cope with a lack of complementarity – which I have termed strategic coping mechanisms – are instruments that make possible a better fit of resources between the members. This can, for instance, take place by making resources of the various members transpar-

ent, stimulating individuals from member universities to exploit complementary resources more effectively, or acquiring resources that can exploit complementarity between member universities. Institutional coping mechanisms on the other hand, are employed to lessen the effect of the contextual differences of the participating universities to increase compatibility between the participants.

In sequential terms, one can thus approach cooperation as a process where a joint decision on consortium objectives and a corresponding portfolio of activities is made, and where activities are subsequently implemented to make use of value creating resources. After implementation begins, the consortium can let those activities take their course, with a particular performance as the end result. However, pressures for efficiency and effectiveness will create a demand for more complementarity, which in turn will be handled through the employment of strategic coping mechanisms. Pressures for conformity and resistance will create a demand for greater compatibility, for which institutional coping mechanisms will be employed. The employment of such coping mechanisms will then improve the end result of the collaborative activities.

The framework above enables us to formulate four basic hypotheses on cooperation in consortia:

Explanatory propositions:

1: The higher the level of complementarity between partners in a consortium, the higher the level of performance of the consortium.
2: The higher the level of compatibility between partners in a consortium, the higher the level of performance of the consortium.

Exploratory propositions:

3: In a case of insufficient complementarity, consortia will employ strategic coping mechanisms to enhance performance.
4: In a case of insufficient compatibility, consortia will employ institutional coping mechanisms to enhance performance.

3. Methodology and operationalisation

3.1 Research design

This study is based on both quantitative and qualitative data based on four case studies and a combination of explanatory and explorative research. The explanatory part is based on the two basic explanatory propositions which can be tested on the basis of a sound operationalisa-

tion of the concepts of performance, compatibility, and complementarity. The explorative part is aimed at exploring the ways consortia adapt to circumstances of incompatibility and a lack of complementarity, with the objective to identify specific types of institutional and strategic coping mechanisms.

A case study approach was chosen to detect the relations between compatibility, complementarity, and performance. It is necessary to understand the nature of the consortia and the context it operates in. Yin defines a case-study as

> "…an empirical enquiry that investigates a contemporary phenomenon within its real life context; when the boundaries between the phenomenon and context are not clearly evident; and in which multiple sources of evidence are used." (1984, p. 23)

These criteria also apply to this research. The next question then relates to the number and the choice of case studies. In my opinion, a limited amount of cases (four in this study) enables us to make general claims on the relation between compatibility, complementarity, and performance, while the sample remains small enough to conduct in-depth analysis of each case. The choice of case studies was rather problematic because the theory does not concern the visible features of consortia. For instance it was not possible to make a selection beforehand of complementary and uncomplimentary consortia and compatible/incompatible consortia. If these concepts were directly visible, four case studies could have been chosen that would fit this two by two matrix. This forced me to take a rather random sample of consortia. In the end a choice was made for a sample of consortia that are very diverse in size (ranging from 4 to 38 universities), consortia that existed for at least five years, and consortia that possess a rather high level of visibility. Europe was a logical region to focus on as it shows a high level of activity in the field of inter-university cooperation. To not focus solely on European developments, a single consortium was chosen outside Europe. The choice was made for Southeast Asia because the ASEAN region also displays a rather high level of integration and because of prior knowledge about higher education in this region. Other obvious criteria were that the consortia should still be active and that the consortia would be willing to actively cooperate in the research. Ultimately this led to the choice for four consortia:

- The Coimbra Group: a consortium of 38 traditional comprehensive universities spread over Europe, including countries outside the EU.

- The European Consortium of Innovative Universities: a consortium of ten innovative and entrepreneurial universities spread over Western Europe.
- The ALMA Network: a group of four universities from the Meuse Rhine Euregion covering parts of the Netherlands, Flanders, Wallonia (the Dutch and French speaking parts of Belgium, respectively) and Nordrhein Westfalen (Germany).
- The ASEAN University Network: a consortium of 17 comprehensive universities from the ten ASEAN member countries.

The data were obtained through a survey of the individual members of the participating universities. We received 188 questionnaires (a likely response of 39.2%) from 61 universities in 38 countries. Additionally, I interviewed a limited number of persons that represent the consortium as a whole (instead of the participating university) to analyse the development of the consortia over time, and their origins and the mechanisms that they employ. Documents were also used such as memorandums of understandings, strategic plans, policy plans, minutes of meetings, workshops etc.

3.2 Operationalisation

In the operationalisation phase, the main concepts are translated and broken down into measurable items. Resources that determine the level of complementarity and factors that control the level of compatibility had to be deduced from secondary sources and logical reasoning. For the case of complementarity, the resource based view does list particular types of strategic resources, and these have consequently been 'translated' for the case of universities.[1] For this list of strategic resources respondents were asked to state whether these form an important motive for cooperation and whether they were present at the partner universities. The combination of these two questions for the total list of resources forms the measure for complementarity. For the operationalisation of compatibility, other typologies and categorisations of institutions were used (Ingram and Clay 2000; Ingram and Silverman 2002) and

1 The following sources for complementarity were identified in relation to partner universities: proximity; country; access to new student markets; language of instruction; financial resources; physical infrastructure and facilities; academic quality in research; academic quality in education; management and leadership quality; the existing external relations of a university; reputation; and standard of the use of ICT.

again, applied for the specific cases of universities.[2] Respondents were asked to state whether differences in these items negatively or positively affected cooperation and whether the consortium could be seen as homogeneous or heterogeneous for this specific item. Eventually, this leads to a certain level of compatibility. Three different measures were used for performance. The first is 'Consortium Performance': a combined measurement of the importance and attainment of the consortium objectives. These formal objectives obviously differ for each of the consortia. Because measuring performance in this way makes it dependent on the level of ambition of the consortium, the respondents were also asked to indicate the impact that cooperation within the consortium had on a list of core activities of universities.[3] This second indicator was termed 'Individual Performance'. The third measure, 'Relational Performance', is not so much related to the results of cooperation but to the process of cooperation. In this measure, respondents were asked how satisfied they were with the communication, coordination, division of responsibilities, and the commitment within and among the universities. In the further presentation of the results of the analysis, only the first performance indicator will be used in this paper. The second indicator did not provide sufficient variation to include it in the further analysis and interpretation of the data. On the basis of both the quantitative and qualitative data, the third indicator was actually found to be an intervening variable rather than a dependent variable (see next sections).

Since the concept of coping mechanisms in the research needs to be explored in this study, this cannot be operationalised in a detailed way. Respondents were however, asked if measures were taken for a list of possible obstacles in cooperation and if so, what kind of measures and by whom were they taken. Unlike the previous concepts, mainly measured through indications on a five point Likert Scale, the questions on measures taken were open questions. As indicated above, three sources

2 The following sources of incompatibility were identified: heterogeneity of legislation on higher education and the national higher education systems; heterogeneity of national culture of the countries in which the universities are located; heterogeneity of conceptions of academic work and ideas about how academic work should be organized; heterogeneity of the division of authority between government/universities/faculties/academics; heterogeneity of formal organisational procedures of the universities; and heterogeneity of the character of the universities (based on size, scope and age).

3 These core issues were: the quality of teaching; the quality of research; the socio-economic development of the region; the quality of organisation & management; the competencies of the graduates; the reputation of the university; the enrolment of students; and the university's access to funding.

were used: questionnaires for the individual members of the participating universities, interviews for the consortium representatives, and documents of the consortia. The questionnaire was designed on the basis of the operationalisation of the concepts above. In addition, questions were asked about the position of the respondent, his or her involvement in the consortium, and his/her affinity with internationalisation and international cooperation. The questionnaire was sent to all known university members that are or were involved in consortium activities. The questionnaires could be filled out in printed form as well as through a web based form and were sent in October 2002, with a reminder in December and the closing date in January 2003. The interviews were loosely structured and focused on the establishment of the consortium, the general development, and changes that have taken place in the strategies and policies of the consortium on specific items related to complementarity and compatibility. Documents were obtained through the secretariats or offices of the consortia, web searches, and articles published in journals.

4. Performance in consortia: reflecting on theory and adapting to reality

Although this paper will not present a detailed analysis of the data (see Beerkens 2004), a summary is presented in the two tables below. The values of the dependent and independent variables are given in weighted Z scores in table 1. The relation between 'Consortium Performance' and the independent variables is presented in table 2 and expressed in the R^2 and the Beta coefficients that resulted from the multiple regression analysis.

Table 1 Performance Indicators and Independent Variables (weighted Z scores)

Performance Indicators	**ALMA**	**AUN**	**Coimbra**	**ECIU**
Overall Consortium Performance	-0.49	0.42	0.42	-0.42
Independent Variables				
Complementarity	-0.23	0.42	-0.02	-0.17
Institutional Fit	-0.40	0.31	0.18	-0.09

Table 2: R^2 and Beta coefficients of regression equations

	ALMA	AUN	Coimbra	ECIU
R^2	.398	.144	.301	.118
Beta (Complementarity)	-.279	.331*	.322**	.327+
Beta (Institutional Fit)	.567**	.063	-.089	.072

\+ *Significant at the 0.1 level*

* *Significant at the 0.05 level*

** *Significant at the 0.01 level*

The analysis of the quantitative data made apparent that our theoretical models of cooperation did not predict the performance of cooperation and explain the process of cooperation to a full extent. This could to a great degree be explained on the basis of the qualitative data obtained from the questionnaires, interviews, and documents. This section reflects on the theoretical approaches and the proposed models of cooperation.

4.1 Reflection 1: Universities and the Resource-based view

Our proposed relation between complementarity and compatibility was based on a resource-based view of universities. This approach stems from the field of strategic management where it has become popular as a counterpart of prevailing theories on competitive advantage in the 1980s that took the external environment as their point of departure. The resource-based view on the firm argues that firms can achieve a competitive advantage if they possess the right resource base and that this competitive advantage can be sustainable if its strategic resources are valuable, inimitable, immobile, and not substitutable. A resource-based view on inter-organisational arrangements perceives collaboration between organisations as an opportunity to gain access to these strategic resources; resources that would otherwise not be available to a firm because they are valuable, immobile, inimitable and not substitutable. Two valid questions on the use of this approach in this study are whether this strategic management perspective can also be applied to universities and whether it is applicable to Higher education consortia.

Strategic management principles have frequently been applied to universities and have been amply used in higher education research. The resource-based view however, is rarely applied in the study of universities or university management. An explanation could be that strategic resources are hard to identify in contemporary universities. Obviously, the quality of education and research are important resources, but at the

same time they are difficult to identify, let alone measure. Furthermore, many universities also try to distinguish or market themselves by emphasising other resources such as location, facilities, or external relations. It became apparent in this study that the quality in education and research and the reputation of partner universities are the most important characteristics to look for in possible partners for cooperation. According to the respondents, cooperation in the consortia has the most positive impact on the university's reputation. This seems to point to the impression that membership and cooperation in higher education consortia is partly symbolic in nature, and that overall no real value is added to the resource bases of the participating universities. The reluctance and perceived needlessness of transferring authority to the consortium level and the unwillingness of partners to (financially) commit themselves strongly to consortium activities supports this impression.

The resource-based view sees the exchange of resources as the most important rationale for cooperation and for engaging in higher education consortia. It was observed that it is not fully in line with reality to perceive higher education consortia merely as vehicles for obtaining strategic resources. Although using this perspective in this study has proved useful, other approaches to cooperation in consortia are also applicable. Higher education consortia can for instance also be perceived as vehicles to reduce transaction costs, something that was mainly seen in the case of Coimbra. Through integration of specific activities, transactions such as student mobility and staff exchange can take place in an administrative framework by which such transactions can be executed more efficiently. Another, more political, rationale for cooperation is also apparent in some of the case studies. This is the collective representation of universities vis-à-vis international and regional authorities such as the EU or ASEAN. By operating collectively, consortia can open up policy channels to gain better access to these authorities. From the point of view of this rationale, higher education consortia act as associations (in the meaning of representative bodies or lobby organisations as defined in chapter four). Another rationale is more instrumental in nature: universities simply cooperate because this is demanded by several financial providers. Many of the EU programmes in education and in research provide funding for cooperative research and education under the condition that applications come from multiple universities from multiple countries.

In spite of these alternative explanations, the resource-based view as a new way of looking at cooperation has been valuable. Inherent to strategic management research, the resource-based view is prescriptive in nature, and therefore makes us aware of the opportunities that arise

through cooperation in an international context. At the same time, it makes clear that from this perspective, these international opportunities remain rather unexploited by the consortia analysed in this study. Sometimes this was because universities simply did not aim for it. In other cases, it became clear that many universities – and countries – are not yet prepared or able to engage in intense and close collaboration with foreign partners.

4.2 Reflection 2: Universities and their Institutional Embeddedness

The lack of willingness or capacity to be involved in close and intense cooperation is related to the institutional contexts in which the universities operate and have developed. This institutional perspective was used to support the notion that members in a consortium also have to share some similarities in order to cooperate. This proposition was based on the assumption that universities are, much more than firms for instance, embedded in their (nationally and organisationally moulded) institutional contexts. The study has shown that this assumption does not need to be rejected. The impact on cooperation however, is less straightforward than expected.

First, it has become clear that different institutional forms influence cooperation in different ways. In all consortia studied, the impact of differences in centralised institutional forms such as national laws and organisational rules were perceived to have a negative impact on cooperation. This was much less the case for the differences in decentralised institutional norms such as culture and beliefs. The latter were seen by many as one of the interesting factors involved in cooperation. Academic and cultural diversity thus can – with the right attitude – be a main source of complementarity instead of incompatibility.

It was also observed that non-academics seem to place more emphasis on the institutional differences in their assessment of the performance of the consortia (while academics seem to be place more emphasis on complementary factors). This would mean that the institutional embeddedness of the university is more apparent in the eyes of non-academics than for academics. This could be explained by the reasoning that the activities in which academics cooperate are of a more universal nature than for non-academics. In this respect it would be interesting to compare cooperation in different academic disciplines. For instance, sciences could be assumed to be less context-related and more universal than social sciences and humanities, and would in this line of thinking present less sources of incompatibility in cooperative activities.

In general, there is not a strong relation between performance success and compatibility. Only when the institutional fit between the universities is perceived as low has this hampered cooperation. This leads us to conclude that a minimum level of institutional fit is required, but universities and their staff are quite capable of handling obstacles that arise due to incompatibility. On the other hand, it was also observed that most consortia do not pursue very close cooperation and tight integration. It is likely that if the intensity of cooperation increases, the discrepancies in institutional contexts become more apparent and more obstructive to cooperation. In this regard it is useful to pay attention to compatibility factors in cooperation, especially in cases where tight integration is foreseen such as (private) joint ventures set up by universities from different countries and (future) mergers between higher education institutions from different countries.

This conclusion and the data do not necessarily point to a convergence of the institutional contexts of universities. On the contrary; the differences in national institutional contexts are still widely apparent and still substantially influence the activities of universities in the eyes of the respondents. What can be observed however, is that universities also become embedded in international regional contexts. Naturally, this regional institutional context is likely to become a bigger influence when regional institutions are stronger. Even though the national context is evidently predominant, for European universities the regional context has an increasing influence on a university's behaviour. In the case of ASEAN the building of regional institutions is still in an earlier stage compared to Europe, but aspirations such as joint accreditation and joint credit transfer systems give the impression that this region is going in a similar direction (albeit not necessarily at the same rate). What is especially relevant for the study is that adaptation to this regional context is beneficial for the performance of consortia. The consortia that were very much connected to regional (political) institutions and had adapted their activities to the programmes and policies (and the available funding) of these institutions (e.g., the European programmes for mobility and cooperation), seem to be more successful. Thus, just as in organisational studies where the adaptation to the external environment of organisations is seen as an important determinant for an organisation's performance, this argument can be extended to consortia as well: regional higher education consortia that adapt to their international regional environment are more successful.

Higher education consortia can be approached from an organisational point of view internally as well. If higher education consortia are seen as a specific type of organisation, characteristics can be detected

that are also typical for universities as specific types of organisations. In this respect Van Vught (1989, pp. 52-54) points to the authority of professional experts, the knowledge areas as the basic foci of attention, the related organisational fragmentation, and the extreme diffusion of decision making power. These characteristics are also apparent in higher education consortia. The 'leadership driven' character of these consortia can then partly explain the dissatisfaction found by academics. In the case of universities, Van Vught (1989, p. 54) puts forward an argument that can easily be extended to higher education consortia:

"Confronted with detailed regulation and an extreme restriction of their behaviour, the scientists and teachers within the higher education institutions (and in our case: higher education consortia; EB) may feel the disillusionment of not being able to explore the paths in which their professional consciousness stimulates them to go."

4.3 Adaptation 1: The process of collaboration

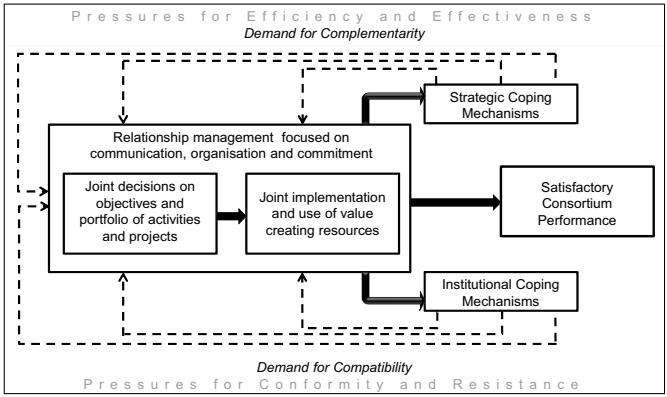
Above, a perspective on cooperation in sequential terms was also given. Cooperation was approached as a process where a joint decision on consortium objectives and a corresponding portfolio of activities was made, and where activities were subsequently implemented to make use of value creating resources. After projects are implemented, the consortium can let activities take their course, with a particular performance as the end result. However, in the implementation phase, pressures for effectiveness and efficiency will call for more complementarity, while pressures for conformity and resistance demand greater compatibility between the partners.

This approach has proved useful as a way of looking at cooperation, but nevertheless it does include some flaws. First, it looks at the consortium as a whole, while it might be better to perceive the consortia under investigation as a collection of cooperative activities. One of the dimensions distinguished was the fact that the HEC's are multi-point alliances, engaged in a wide array of activities. This is also likely to result in different outcomes and levels of success for different consortium activities. It is also possible that different types of activities develop in different ways and that it therefore is difficult to develop a general sequential model for the process of cooperation in consortia. It was observed that in some projects in some consortia, the consortium as a whole plays an important role in the initiation of the projects and the facilitation in the early stages, but then continue more or less outside the framework of the consortium after they have matured.

The most evident flaw in the approach has been the lack of attention paid to the relations between partners. This of course is because relational performance was initially regarded as a performance indicator. It has become clear through the case studies however, that the relations among the individuals of the member universities play an important role (in the employment of complex coping mechanisms) and have an impact on the achievement of the consortium objectives. Because of the importance of the relations between the persons involved, communication, organisation, and commitment within the consortium become imperative factors in the ultimate outcomes of cooperation. The attention for relational issues should therefore also be incorporated in the model. Improving relations between those involved in the activities is best focused on the provision of sufficient and good communication, providing a clear organisational structure for the activities, and promoting commitment of the member universities and their representatives. The attention for the relational issues should be apparent throughout the process of cooperation; from decision making on the broad objectives to the implementation of concrete activities.

A final adjustment to be made to this sequential model of collaboration and coping mechanisms is the inclusion of 'feedback loops'. Once coping mechanisms are employed, this does not automatically lead to the progress or finalisation of projects: coping mechanisms frequently imply that the consortium needs to take a step backwards. This can take the form of seeking new members, finding new objectives or new activities, or applying different incentives in the implementation of activities. In some cases this would imply minor adjustments, while in others this might lead to a whole new direction. These mechanisms will then be employed with the expectation that the activities will develop correctly after implementing them. If new problems are encountered due to a lack of complementarity or due to incompatibility, new coping mechanisms need to be employed and one needs to return to the appropriate phase. The consortium attempts to arrive at an ultimate result which is sufficiently satisfactory for the members. The last statement adds an important issue. Most objectives of consortia are rather ambiguous and do not contain a specific and concrete end result. Consortia will not always continue until optimal results are achieved but will strive to an end result where there is a consensus on the adequacy of the level of goal achievement. In other words, consortia appear to be more geared towards performance satisfaction than towards performance optimisation. The resulting sequential model of cooperation is portrayed in figure 2.

Figure 2: A sequential model of cooperation



4.4 Adaptation 2: An explanatory model of collaboration

In our explanatory model of collaboration and coping mechanisms, we argued that there is a positive relation between complementarity and performance and between compatibility and performance. The case studies have shown that this is valid only under particular conditions.

Performance will be affected positively by the existence of complementarity if the complementary resources are actually recognised, utilised and exploited; which can be accomplished if the appropriate strategic coping mechanisms are employed. In turn, strategic coping mechanisms can be more effectively applied if there is adequate communication, organisation, and commitment. The proposed positive relation between complementarity and performance can thus be maintained if suitable coping mechanisms are employed to recognise, utilise, and exploit the complementarity in resources. Furthermore, this positive effect will benefit from the presence of good communication, clear organisation, and a high level of commitment.

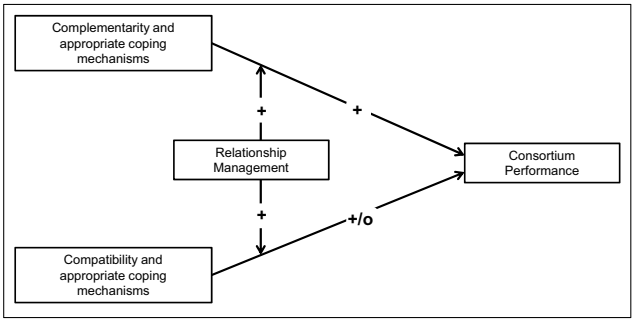
Compatibility is also related to performance, but not as linear as proposed. In this case, it might be better to claim that the level of incompatibility is negatively related to performance. A minimum level of compatibility is needed to achieve objectives. If the level of institutional fit is insufficient, this negatively influences performance. If minimum requirements are met, this influence diminishes. However, it is uncertain whether this holds true for more complex forms of integration of activities. It remains likely that the need for a good level of fit becomes all the more necessary if complex forms of cooperation are aimed for. In our cases, the activities within the frameworks of the consortia in general did

not require a high level of integration. It is probable that if tight integration was required, the compatibility of institutional contexts would have affected the success of cooperation. According to the complexity of the cooperation, consortia can employ institutional coping mechanisms to make differences transparent, and communicate them to the persons involved. More complex institutional coping mechanisms can be employed when it is necessary to reduce or totally nullify the differences. Such complex mechanisms encompass mutual adjustment or incorporation of differences. Again, such complex mechanisms require adequate communication, organisation, and commitment.

The employment of coping mechanisms will thus not always have a (positive) impact, but they need to be suitable for the level and nature of incompatibility or lack of complementarity encountered in the course of cooperation. It is thus the mixture of existing complementarity and compatibility with the appropriate strategic and institutional coping mechanisms that affect performance. Furthermore, the effectiveness of the employed coping mechanisms will benefit from good relation management in the form of ample communication, clear organisation, and sufficient commitment.

This brings us to the final and most significant change to the model: the quality of relationship management as an intervening variable. Relation management refers to measures consortia take to improve communication, create a stable and clear organisational structure, and increase commitment. A good communication strategy and a clear and transparent organisation of a relatively stable nature support processes of socialisation in sub units of the consortium which then will reflect on the consortium as a whole. It is argued here that consortium management is a combination of the employment of coping mechanisms to increase complementarity and compatibility in combination with ‘relationship management’; that is the facilitation of the rise of commitment through communication and organisation. If this relationship management is conducted adequately, more complex coping mechanisms can be employed, and in turn, complementarity and compatibility between members can be better exploited, which again increases the chances for success for the consortium as a whole.

Figure 3: An explanatory model of cooperation



The alteration of our perception on the relations between complementarity, compatibility, and performance leads to the revised model displayed in figure 3. Compatibility thus matters up to a specific level and coping mechanisms need to be appropriate for the level of complexity of the objectives. The new variable in the model is the quality of relationship management, or in other words, the satisfaction with communication, organisation, and commitment in the consortium. Furthermore, the importance of this added variable increases as the complexity of the objectives increases.

This model differs substantially from the hypothesised explanatory model on four points:

- The model only attempts to explain consortium performance in the meaning of the attainment of substantial consortium objectives, and does not focus on the impact of cooperation on individual member universities.
- The employment of institutional and strategic coping mechanisms in the new model does not impact the performance of cooperation autonomously. Their impact on the performance in the revised model is situated in their appropriateness or suitability in relation to the level and nature of complementarity/compatibility.
- The relation between compatibility and performance is no longer assumed to be linear. The new model claims that a particular minimum level of compatibility is required for the consortium to perform.
- The most obvious change is the inclusion of 'relation management'; where the management of the relations between those persons involved in consortium activities positively improves the effectiveness of the coping mechanisms employed.

5. Conclusions: Critical factors in the performance of consortia

We argued that the performance of consortia can be explained on the basis of the complementarity and compatibility in the consortium, and the coping mechanisms employed by the consortium. On the basis of the comparative analysis of the case studies, the following critical aspects of higher education consortia can be identified:

First, the consortium has to consist of members that possess resources that are strategically valuable for the other members. The partners in a consortium have to be able to offer each other something. If this is not the case at all, the consortium as a vehicle for resource exchange is pointless. In general it was observed that various sources of complementarity can nearly always be found between groups of universities. The fact that complementarity is present however, does not always mean that they are known by the right persons and that they are utilised and exploited.

This brings us to the second aspect. Sources of complementarity need to be accompanied by the appropriate strategic coping mechanisms. These coping mechanisms are aimed at the acquisition, identification, dissemination, and exploitation of complementary resources. In general, closer cooperation and tighter integration requires more complex coping mechanisms than are aimed at the exploitation of complementary resources. This can be done by creating sufficient incentives and motivations for staff of universities to commit themselves to consortium activities. This can be accomplished by adapting the consortium activities to the existing activities in the universities, adapting them to wider regional programmes to access funding, or by creating internal (financial) incentives or obligations to become active in the consortium.

A third critical aspect of higher education consortia is related to the differences in the institutional contexts in which the members operate. It was claimed that higher compatibility in the consortium leads to higher performance. It was observed however, that the condition of compatible backgrounds is required for cooperation to be successful. Only a minimum level of institutional fit has to be present in the consortium for less complex forms of cooperation. It is argued however, that when cooperation becomes more complex, a higher level of institutional fit becomes necessary.

The fit between institutional contexts is not something that universities fully control. They can employ institutional coping mechanisms to deal with the problems that arise through differences, to lessen those differences, or to abolish them. Dealing with obstacles generally occurs

through information on existing differences in institutional contexts of the members; as well as through familiarisation with existing institutional contexts through meetings, seminars or courses. Another way of efficiently addressing such obstacles is to set up joint administrative structures to efficiently deal with specific exchange requirements. More complex institutional coping mechanisms are aimed at actively changing the differences between members. Here one can refer to mutual adjustment of universities and the abolishing of differences through incorporation.

Additional characteristics that contribute to the performance of higher education consortia are related to what I have termed relationship management. This becomes more important in the case of close cooperation and tight integration. Relation management refers to measures that consortia take to improve communication, create a stable and clear organisational structure, and increase commitment. A good communication strategy and a clear and transparent organisation of a relatively stable nature support processes of socialisation in sub units of the consortium which then will reflect on the consortium as a whole.

A final point is that a consortium, like any other organisation, needs to adapt to its internal and external environments. This means that activities are more likely to be successful when they are compatible with the prevailing norms and beliefs in the universities, and with the ongoing developments on the regional level. However, when this results in a risk avoiding strategy, this will not always correspond with the strategic global needs and opportunities that a consortium and its universities face in an increasing competitive environment. The seizing of those opportunities frequently requires taking risks that are not in line with traditional views of the university, but that will more effectively exploit the complementarity in the consortium.

6. Closing Remarks: Global Opportunities and Institutional Embeddedness

This study analyses the performance of higher education consortia in the context of opportunities universities face in the contemporary environment. The behaviour of universities across national and organisational boundaries is fascinating as universities can be considered organisations strongly embedded in their national and organisational contexts. This paradox manifested itself in higher education consortia as well. In this respect, the main focus was on the ‘diversity paradox’ in international cooperation, where partners need to be ‘similar yet different’. This study

showed that inter-organisational arrangements do not only have to balance similarity and diversity, but also have to find the right balance in the margins between conformity and innovativeness, ambition and reality, and the adages of 'cooperating to compete' and 'cooperating to cooperate'.

It was shown that conformity to both the internal context of participating universities and the external regional context has been a successful strategy in cooperation. Conformity to existing structures might, however, restrict universities in their entrepreneurial behaviour. Universities, and the consortia they are involved in, can decide to avoid the risks of new innovative ventures through compliance with existing policy actors and prevailing attitudes of their stakeholders. This also relates to the balance that needs to be found between ambition and reality. It was observed that activities which correspond with widespread and prevailing ideas, beliefs, and attitudes have been more successful than those that challenge the existing order. This can lead however, to situations where opportunities and complementary resources in consortia are not (fully) exploited. If ambitions are set too high, one runs the risk of too much resistance which can ultimately lead to a lack of concrete activities. The adage of 'cooperating to compete' has been repeatedly coined to typify contemporary inter-organisational arrangements in business, but also in higher education. The replication of business terminology, under the heading of strategic alliances, joint ventures, and consortia in the field of higher education, illustrates this. We present arguments that support the perception of the contemporary environment as increasingly (internationally) competitive. The study indicates however, that the adage of 'cooperating to cooperate' shows more conformity with existing ideas of the university, at least in the consortia analysed in this research.

We conclude that opportunities that are available, or could be available, in higher education consortia (and probably also in other inter-organisational arrangements) are rarely fully exploited. The most successful forms of cooperation are still based on rather loose structures that do not significantly impact the organisations of the member universities. This does not imply that they fail in their task, since a tight integration of activities is not part of their agenda. Where this is the case, less than optimal outcomes of projects or activities are more likely. Close cooperation between organisations that attach considerable value to their autonomy and independency will be very difficult, since university leaders will be hesitant to delegate authority to a higher level and academics will be hesitant to shift their loyalties.

Nevertheless, in the national domain, circumstances have frequently led to a move from voluntary cooperation towards imposed amalgama-

tion. Parallel developments on the global or regional level are not likely to occur in the near future, but pressures for increased efficiency and effectiveness alongside demands for broader international opportunities for staff and students are likely to push universities into closer and more solid arrangements with foreign partners. Together with an increasing emphasis on entrepreneurialism and the copying of business practices, this might lead to unanticipated arrangements between universities in the future. If such developments are accompanied by closer integration in the political and European domain, and also in that of higher education (such as in the European Bologna process), obstacles in the way of integration are also likely to be reduced. For now it is clear that cooperation in fields where it is seen as an inherent part of academia are more likely to be the standard than where cooperation is moulded on a business-like model. The cooperation that emphasises cross-cultural exchange and intercultural learning for students and staff is still most successful, at least in the higher education consortia in this study.

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