HORIZONTAL PURCHASING COLLABORATION IN DEVELOPING COUNTRIES

BEHAVIOURAL ISSUES IN PUBLIC UNITS IN UGANDA

Moses Muhwezi

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The long and largely uncertain journey has finally come to the end. It has always been my wish to get to this level; the epitome of my academic struggle. Along the way, sometimes the light would go out, but would be rekindled by sparks from several people, to whom I owe my sincere gratitude.

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Moses Muhwezi
Enschede, October 2010.

Summary

Horizontal purchasing collaboration is a popular practice in the public sector in many countries. Despite this fact, developing countries and Uganda in particular, have hardly adopted this practice.

Whereas studies have been carried out on horizontal purchasing collaboration in the public sector in developed countries, there is still a remarkable lack of literature on public procurement in the developing countries context. The developing world context is characterised by individualism and an ñownership cultureò. This may provide an explanation for the lack of well-established functioning horizontal purchasing collaboration in developing countries and Uganda in particular. This thesis takes a behavioural approach line to horizontal purchasing collaboration.

The overall research goals of this thesis are threefold. First, to understand what is happening with respect to behavioural aspects in horizontal purchasing collaboration in developing countries (Uganda). Second, to understand why and how the behavioural aspects influence horizontal purchasing collaboration. Third, to know how to apply the understanding of the behavioural aspects in horizontal purchasing collaboration in developing countries (Uganda). Whereas the first two goals seek to understand what and how horizontal purchasing collaboration is and why it is so, the third goal goes further to prescribe how the horizontal purchasing collaboration process should be handled and how the behavioural factors should be improved.

To better understand the status of horizontal purchasing collaboration, we carried out a series of studies in Uganda to provide us with empirical data. Two exploratory studies and a case of an existing collaborative arrangement were carried out to gain a deeper understanding of issues that seemed novel about horizontal purchasing collaboration. From these exploratory studies and the literature, we derived hypotheses which we tested by a large scale survey.

From the exploratory studies, we found out that Procuring and Disposing Entities went into collaboration with others, even when they were not aware of the benefits to get, mainly because of the urgency of the deals they had to undertake. This is more relevant for the developing countries which do not put emphasis on planning and end up with emergencies. This insight adds ñurgencyò to the list of known factors essential to initialise horizontal purchasing collaboration. We found out that contractual issues that involve individual entity secrets in the final stages of the procurement cycle inhibit horizontal purchasing collaboration. We also found out that once horizontal purchasing collaboration starts with a few items, it will eventually roll out to others that had not been thought of as suitable, thus suggesting an incremental approach to the implementation of horizontal purchasing collaboration.

In our in-depth case study, we found that the frequency of inter-institutional meetings is important, in developing positive feelings towards each other. This is not different in developed countries.

Unlike in the previous studies in the developed countries, we noted that contrary to findings from the developed countries, free riding may not be an important motivator for entities not to collaborate.

To understand causal relations, we gathered additional empirical data through a survey. From that survey, we established that affective commitment (pride in the collaboration), more than instrumental commitment (fear of costs of switching off from current collaboration) and normative commitment (based on strong values and beliefs) cause variability in commitment. This could be because pride is more important in the initial phases of collaboration compared to the fear of switching costs; which would be minimal at the initial stage, even so as the not yet evolved values and beliefs.

We also conclude from the survey that competence of the collaborating entities is important in determining trust and building horizontal purchasing collaboration. This finding makes sense in the developing countries where collaborating entities do not have enough qualified personnel, so entities find it necessary to collaborate with those that have expertise. The finding about sharing information causing more variability in the level of collaboration than incentives alignment and decision synchronisation is interesting. We attribute this to the willingness by officers to openly share information as public sector transparency practice requires.

We found out that the correlation between commitment and the level of collaboration is lower than the correlation between trust and the level of collaboration. But this may not be surprising, given the existing literature that trust refers to feelings about the relationship and commitment represents a manifestation of actions within the relationship. This implies more or less that trust can exist from the start of collaboration onwards, while commitment (as manifested by actions) is more likely to develop over time. We surveyed relatively new collaborations, with fewer exposed actions and experiences.

Our finding that the higher correlation between dependence and the level of collaboration compared to correlations between trust, commitment or reciprocity with the level of collaboration is insightful. We found out that perhaps entities in developing countries practice collaboration, not mainly because of trust, commitment or reciprocative reasons, but more importantly because the other entities provide important and critical resources for which there are few alternative sources of supply.

The results of the survey indicated a moderate significant correlation between the level of collaboration and benefits to the individual entity. The moderate correlation especially for collaborations that are still emerging, signals the need for collaborating entities to build trust and commitment and develop a critical minimum mass in carrying out pooled activities together to realise significant benefits.

We note that there is a difference between correlations of behavioural variables (commitment, trust, dependence, and reciprocity) with the level of collaboration and the benefits of collaboration. The lower correlation of the behavioural variables with the benefits of collaboration than with the level of collaboration may be attributed to

the moderating role of the level of collaboration. This finding is important to the managers of collaborative initiatives, especially in the initial phases. It is a signal to managers that to achieve the benefits of the collaboration, the managers should try to increase the level of collaboration.

To complete the practical recommendations, we went on to develop a model to advise how horizontal purchasing collaboration should be handled. Based on the social exchange theory, we suggest that collaborating entities should engage in joint actions to be able to get what they individually lack. Based on the institutional theory, we suggest that constant information flow to collaborating entities, ensuring that promises are met, winning top management support, and instituting a problem solving process will improve the level of behavioural factors. Based on the resource dependence theory, we suggest that collaborating entities should respond to issues as they arise, set and meet deadlines, be consistent, and increase disclosure.

Since we acknowledge that the level of collaboration is important, we use theory to suggest how behavioural factors can be improved. To confirm the relevance of our suggestions, we carried out a practical check of the suggested guidance. From the practical check of our results, we derived that the collaboration should be carefully planned at the beginning, so that it has the momentum to proceed through the next stages. Collaborations in developed and developing countries require various stakeholders at different development stages of the collaboration. An important difference between collaborations in developed and developing countries is that in developing countries like Uganda, it is important to involve donors at all the phases of the collaboration. Donors need to be involved to the greatest extent in the emergence stage, because they provide resources and want to be sure of the method that will be used to utilise them.

Basically, in developing countries, horizontal purchasing collaboration should be targeted more at sharing the burden of individual procurement benefits whereas in developed countries, the focus is more on additional benefits.

Contents

Acknowledgements ..... **v**

Chapter 1- Introduction - Introduction **1**
1.1 Definition of horizontal purchasing collaboration 1
1.2 Advantages and disadvantages of horizontal purchasing collaboration 2
1.3 Rationale for the study 3
1.4 Background to the study 4
1.5 Focus of the study 6
1.6 Research outline 6
1.7 Overview of the thesis 8

Chapter 2 – The research approach **10**
2.1 Introduction 10
2.2 Methodological points of departure 10
2.3 Conclusion 13

Chapter 3 – Literature review **14**
3.1 Introduction 14
3.2 Theories related to collaboration 14
3.3 Literature on horizontal collaboration 20
3.4 Literature on horizontal purchasing collaboration 21
3.5 The need to understand social factors of collaboration 23
3.6 Collaboration in Uganda 24
3.7 Existing models that use a behavioural approach 26
3.8 Behavioural factors and a tentative model 29
3.9 Conclusion 35

Chapter 4 – Exploratory studies on current horizontal purchasing collaboration in Uganda **36**
4.1 Introduction 36
4.2 Objective 36
4.3 Exploratory study 1 37
4.4 Exploratory study 2 50
4.5 Practical implications 67
4.6 Limitations 68
4.7 Conclusion 68

Chapter 5 – An in-depth case study of horizontal purchasing collaboration in Uganda **70**
5.1 Introduction 70
5.2 Objective 70
5.3 Method 70
5.4 The general and procurement background 72
5.5 The motivation to collaborate under the SWAp - JLOS framework 74
5.6 Features of the Sector Wide Approach 74
5.7 Structure of the JLOS 75
5.8 Outcomes of JLOS horizontal collaboration 75
5.9 Lessons learned from the Justice Law and Order Sector collaboration 77

5.10 Level of collaboration 82
5.11 Benefits for individual entities 84
5.12 Limitations 84
5.13 Conclusions 85

Chapter 6 – The survey 86
6.1 Introduction 86
6.2 Objective 86
6.3 Method 87
6.4 Results and discussion 93
6.5 Limitations 108
6.6 Practical implications 108

Chapter 7 – A collaboration development process model 110
7.1 Introduction 110
7.2 Objective 110
7.3 Literature review 110
7.4 Method 114
7.5 Results 117
7.6 Discussion and practical implications 122
7.7 Limitations 126
7.8 Conclusions 127

Chapter 8 – Improving behavioural factors 128
8.1 Introduction 128
8.2 Objective 128
8.3 Literature review 129
8.4 Method 141
8.5 Results and discussion 142
8.6 Limitations 145
8.7 Conclusion 145

Chapter 9 – Wrap up 146
9.1 Introduction 146
9.2 Research goals, questions, and hypotheses 147
9.3 Research approach 147
9.4 Findings and conclusions 149

References 153

Appendices 176
Appendix A: Survey data collection questionnaire 176
Appendix B: Data collection tool for importance of different factors to horizontal purchasing collaboration in Ugandan PDEs 181
Appendix C: List of abbreviations 182
Appendix D: Variables and Parameters 184
Appendix E: The procurement cycle; roles and responsibilities 185
Appendix F: An overview of the multidimensional construct of trust 186
Appendix G: Detailed responsibilities of categories of respondents 187
Appendix H: Adjustments to the standard research instruments 188
Appendix I: Practical check collaborative initiatives cases 189
Appendix J: Responses on what were being missed before undertaking purchasing collaborative initiatives 190

Appendix K: Responses on what was being missed on our suggestions on how ho handle horizontal purchasing collaboration 191
Appendix L: Responses on what is least activity to be done on the suggested actions for improving horizontal purchasing collaboration 192
Appendix M: Responses on what in particular would be recommended to new starters 193
Appendix N: Recommendations for further research..... 194

About the author 196

Chapter 1- Introduction

The benefits of collaboration are well-documented in literature. They include sharing information, reducing procurement costs, learning from each other, bundling purchasing volumes, and using scarce resources efficiently (Johnson, 1999; Nollet and Beaulieu, 2005; Schotanus, 2007; Tella and Virolainen, 2005). The very existence of cooperatives, the pooled procurement of essential medicines by the Caribbean states, collaboration of thousands of hospitals in the USA, the formation of group purchasing organisations, the inter library purchasing schemes, all indicate that collaboration has been recognised by the purchasing profession. It could even be an important trend of the future (Carter et al., 2000; Nollet and Beaulieu, 2003; Walker et al., 2003). Considering the advantages of collaboration, developing countries and Africa in particular which lag behind in the development of their economies, are qualified to be the home of collaboration. They are qualified for collaboration because their costs of operations are high. Each procurement unit does not have high volumes to justify discounts and does not use the limited resources and knowledge optimally.

Purchasing collaboration is not well established in developing countries. Previous research indicates that behavioural aspects may play an important role for the explanation of this phenomenon (Boddy et al., 2000). Additionally, with the sub-Saharan African societies which tend to be less dynamic and more resistant to change compared with industrialised societies (Tigineh, 2000), there are good reasons to worry about when developing countries and African countries in particular aim to attain the level of collaboration required to make a substantive development record.

It is not clear what the precise role of behavioural aspects is in horizontal purchasing collaboration in developing countries (Boddy et al., 2000). In addition, it is not known whether these behavioural aspects can be influenced in a positive way. Therefore, the need to understand the level of the current horizontal purchasing collaboration in developing countries exists. We aim at making a contribution through explaining the behavioural aspects of horizontal purchasing collaboration and by suggesting a working guide on how to handle horizontal purchasing collaboration in developing countries.

This chapter helps the reader understand the topic being studied and justifies why we studied the topic. We start with a general definition of horizontal purchasing collaboration and continue by briefly showing its advantages and disadvantages. We then include the rationale of the study. To put our study into context, we include a background to the study, which leads to the problem statement. Next, we discuss the focus of the study. Then we briefly explain each of the main constructs of the study (trust, commitment, reciprocity, and dependence). Finally, we include the research outline to guide our readers on the organisation and presentation of the rest of the contents.

1.1 Definition of horizontal purchasing collaboration

In the literature, there are many definitions of horizontal purchasing collaboration. Hendrick (1997) defines it as an arrangement where two or more independent

organisations join together, either formally of informally, or through an independent third party, for the purpose of combining their individual requirements for purchased materials, services, and capital goods to leverage more value added pricing, service, and technology from their external suppliers than could be obtained if each firm purchased goods and services alone.

Simatupang and Sridharan (2005) define it as a process of sharing information, decision synchronisation, and incentives alignment. Rozenmeijer (2000) also defines it in a similar way, but he does not include the incentives alignment dimension. Other scholars have explained it with almost similar views (e.g., Carter et al., 2000; Doucette, 1997; Johnson, 1999; Nollet and Beaulieu, 2003, 2005).

In this dissertation, we define horizontal purchasing collaboration as according to Schotanus (2007). Schotanus defines horizontal purchasing collaboration as the operational, tactical, and/or strategic cooperation between two or more organisations in one or more steps of the purchasing process by pooling and/or sharing their purchasing volumes, information, and or resources in order to create symbiosis. This broad description allows us to study various levels of horizontal purchasing collaboration.

1.2 Advantages and disadvantages of horizontal purchasing collaboration

Collaborative purchasing arrangements exist to attain a certain goal (Kamann et al., 2004; Nollet and Beaulieu, 2003; Rozenmeijer, 2000). The benefits of horizontal purchasing collaboration have been well documented in the literature. Various benefits of purchasing collaboration are:

- Sharing information and more accurate information (Nollet and Beaulieu, 2005; Schotanus, 2007; Tella and Virolainen, 2005);
- Reducing procurement costs (Johnson, 1999; Nollet and Beaulieu, 2005; Tella and Virolainen, 2005);
- Sharing resources/processes (Schotanus, 2007);
- Learning from each other (Nollet and Beaulieu, 2005);
- Bundling purchasing volumes (Schotanus, 2007) leading to price reduction (Johnson, 1999);
- Ability to attract new suppliers (Johnson, 1999);
- Greater management (human resource) capabilities (Johnson, 1999);
- Counterbalancing suppliers (Bakker and Walker, 2008).

Besides, sometimes the ever changing business context (like internationalisation, developments in information and communication technology, government regulation and increased public attention to the way business is done) makes horizontal purchasing collaboration worthwhile, because it may enable entities to operate and manage large scale and/or complex tasks.

We note that horizontal purchasing collaboration may not be interesting in all circumstances. In general, the failure rate of collaborations has been reported to be high, as far as two thirds (The Economist, 1999). Various disadvantages according to Johnson (1999) of horizontal purchasing collaboration that make it not interesting are:

- High coordination cost;

- Complexity of collaboration activities;
- Difficulties in standardisation and compliance;
- Free riding;
- Governance of the collaboration.

Schotanus and Telgen (2007), in addition to the above further identify the following:

- Set up costs for the collaboration;
- Loosing flexibility, since products/services purchased must have a high similarity among group members;
- Loosing control by individual members;
- Supplier resistance;
- Anti-trust legislation.

All together, horizontal purchasing collaboration may be worthwhile in a lot of situations. However, as we discuss in this thesis, several disadvantages related to behavioural issues may be particularly relevant for developing countries.

1.3 Rationale for the study

Collaborative purchasing is an especially interesting concept for public organisations (Schotanus, 2007). Schotanus notes that there is no or almost no mutual competition between public organisations, thus there are few or no issues regarding confidentiality of information. In addition, public organisations have similar structures, networks, purchasing needs, a common environment, and a common goal to maximize the value of the taxpayersô money. These factors make it easier to collaborate and explain why collaborative purchasing is quite common in the public sector of many countries.

Although collaborative purchasing is a popular concept in many countries, we note that it has not been practiced in most of the public Procuring and Disposing Entities (PDEs) in Uganda. Where it has been practiced, it is in a few processes. We also note that the number of collaborative initiatives in Uganda does not increase much. This may make organisational units lose benefits of collaborative purchasing as mentioned above.

There is a substantial total value of purchases by public organisations, but research has largely ignored public purchasing (Johnson, 1999). Although several studies have been carried out on horizontal purchasing collaboration in the public sector in developed countries (e.g., Johnson, 1999; Laing and Cotton, 1997; Nollet and Beaulieu, 2003; et cetera), there is still a remarkable lack of literature on public procurement, in scientific analysis and accumulated knowledge (Telgen, 2007). From the above argument, we note that literature does not provide a clear explanation for the lack of collaborative purchasing in Uganda.

Looking specifically at the situation in Uganda, we note that whereas there is some literature on developed countries, it may not be relevant in the developing world (Meyer, 1997) and in the Ugandan context. The conceptual equivalence of behavioural aspects in developing countries is likely to be different from developed countries (Atkinson and Butcher, 2003). Theories developed in developed countries remain untested in the situation of developing countries (Sommer et al., 1996) and do

not consider phenomena such as cross-cultural dimensions (Gemunden, 1997). The reasons described above provide the rationale for this study.

1.4 Background to the study

The Ugandan public units spend a lot on services, supplies and works. For example, in 2007/2008, about 70% of the public budget (Ushs 3046.54 billion, which is about 1.27 billion Euros) was estimated to pass through the procurement system. Therefore government Procuring and Disposing Entities (PDEs), have to be accountable to the public[1]. Moreover, they are expected to minimise operational costs and not to exceed their respective budget limits. The fact that the public sector has to compete with the private sector, for example for the scarce qualified staff and limited supply of certain types of products, further compels the PDEs to seek for ways of operating efficiently and effectively.

According to the 2006/2007 budget speech, inefficient procurement procedures resulted into Ushs 120 billion (about 50 million Euros) loss. The speech recommended promotion of coordination between the sectors. This would reduce on the number of transactions involved in the activities involved in the procurement cycle (Appendix E) in Uganda. Instead of each of the 271 PDEs carrying out transactions individually, collaborative purchasing would reduce duplications of efforts and activities.

One of the factors that seem to make it more difficult to collaborate in Uganda is that public units tend to have an individualistic focus. Each entity is accountable on its own; even if it carries out a purchase transaction with others, the ñownership cultureò can be noticed.

We note that for developing countries, it is the behavioural dimension, rather than economic, legal or technical dimensions, which is less understood in the literature (Boddy et al., 2000; Lambert et al., 1998). So, we do not understand yet very well how the behavioural aspects of the exchange relationship (such as trust, commitment, reciprocity and dependence) impact horizontal purchasing collaboration in developing countries. We justify our choice of the behavioural approach to collaboration in detail in Chapter 3. Below, we briefly mention why these factors are of interest to our study.

We find trust (we define trust as oneôs belief that the other partner will act in a consistent manner and do what he or she says he or she will do) interesting to study because it is typically difficult to be achieved by public units in Uganda. The culture in developing countries and specifically Uganda is such that one unit suspects the other as not being trustworthy (GOU Report, 2004).

We find commitment (the belief that the trading partners are willing to devote energy to sustaining the relationship) interesting to study in Uganda because in the African region, collaboration is weak and largely informal (Ochola, 2007). Ochola further names lack of commitment, as being an important reason why the formal collaborative initiatives are battling for survival. Also, most public units and horizontal purchasing collaborations are not aware of their mission and objectives (PPDA report, 2006), yet according to Choppin (1994), commitment will be best achieved when people involved in the collaboration believe in its mission and objectives, and when they are aware of their potential to contribute to them.

[1] Note that we sometimes refer to PDEs as entities in the rest of the dissertation.

Reciprocity (a state of relationship where an organisation gives something to another organisation in return for something else), is interesting to study in Uganda. This may not always be the case in developing countries and particularly in Uganda. For example according to the GOU report, (2006), entities keep watching the input of others and accordingly adjust their input.

Dependence (the extent to which a partner provides important and critical resources for which there are few alternative sources of supply) is an interesting factor to examine in Uganda. This is because public units in Uganda, in addition to being specialised, lack sufficient resources to manage on their own or adapt diverse capacity within their individual units. They have to rely on others.

We note from the literature that several other factors influence horizontal purchasing collaboration as well (Anderson and Narus, 1990; Bakker et al., 2006b; Beamish, 1987; Bignoux, 2006; Brennan and Turnbull, 1999; Das and Teng, 2002; Enthoven, 1994; Fryxell et al., 2002; Gambetta, 1988; Harrison, 2005; Hendrick, 1997; Hoffmann and Schlosser, 2001; Huber et al., 2004; Klein Woolthuis, 1999; Kogut, 1998; Leonidou et al., 2006; Liden et al., 1997; Luo, 1997; Mattsson, 1999; Morgan and Hunt, 1994; Nollet and Beaulieu, 2005; Schotanus, 2007; Whan and Taewon, 2005). These factors include, among other things, organisation, communication, allocation of gains and costs, formality of the group, knowledge on how to cooperate, distance between parties, and uniformity of the members.

We also note from the literature (Bignoux, 2006; Brennan and Turnbull, 1999; Gambetta, 1988; Liden et al., 1997; Mattsson, 1999; Morgan and Hunt, 1994; Whan and Taewon, 2005) that trust, commitment, reciprocity, and dependence cause the most variability in collaboration. We argue that this literature was developed in and may largely apply to the developed countries, but it is not clear whether this also applies to developing countries. Therefore, it is important to understand behavioural aspects in horizontal purchasing collaboration in the developing countries context.

We acknowledge that there are factors which could moderate the relationship between behavioural and horizontal purchasing collaboration like structure, culture, governance, knowledge, legal issues, form of collaboration, size, and internal support. However, entities in developing countries and particularly PDEs in Uganda, being public, have similarities across all PDEs in Uganda and are similar to purchasing collaboration situations in developed countries. For example all PDEs in Uganda have similar structures, are governed by the same PPDA Act, staff have standard qualifications (though in five PDEs some staff members are more qualified and at higher civil service ranks). All the staff, even with diverse first degree qualifications, are trained under the PPDA directorate of training, go through similar training modules, and have similar basic knowledge in procurement; the laws and standard documents are similar, the size of PDEs is similar (apart from five major ones) and all get similar internal support from the operational structures as per the PPDA Act (2003). We recognise that similar studies on collaboration which have included culture as a moderating variable involve international respondents. Since all the considered PDEs under our study operate in Uganda (and 97% operate in Kampala, the capital city), the same environment makes culture less likely to significantly cause variability in horizontal purchasing collaboration. Because of these factors being similar across the PDEs, we do not consider them to be the focus of interest in our study.

1.5 Focus of the study

The ultimate goal of the government as required by the Public Procurement and Disposal of Assets (PPDA) Act, 2003 is to achieve fairness, transparency, accountability, and value for money. To achieve this goal, various strategies have to be undertaken. We believe that horizontal purchasing collaboration, because of its associated advantages, could be one such strategy to realise this goal.

As mentioned in Section 1.4, we pose that the behavioural aspects should be well understood and applied. This may help improving the current state of horizontal purchasing collaboration in Uganda.

In line with the introduction, background, and problem above, our main focus of this study is threefold:

- To understand what is happening with respect to behavioural aspects in horizontal purchasing collaboration in developing countries (Uganda);
- To understand why and how the behavioural aspects influence horizontal purchasing collaboration in developing countries;
- To apply the understanding of the behavioural aspects to start and/or enhance horizontal purchasing collaboration in developing countries (Uganda).

The first goal requires a descriptive design since it seeks to increase understanding of horizontal purchasing collaboration, provides a basis for improving practice, and gives more insights to horizontal purchasing collaboration in Uganda. The second goal requires an analytical design since it seeks to develop theory and a collaboration development process explains relationships between variables in the study and carries out a practical check on the findings of the study. The third goal requires both a prescriptive design and an analytical design since it seeks to explain how to apply the understanding of behavioural aspects, provides a practical guidance on how to improve behavioural aspects in horizontal purchasing collaboration, and also carries out an empirical check of the suggested guidance.

1.6 Research outline

The main goals of this research are to understand behavioural aspects in horizontal purchasing collaboration in developing countries (Uganda), to understand why and how the behavioural aspects influence horizontal purchasing collaboration in developing countries (Uganda), and to apply this understanding of the behavioural aspects to handle horizontal purchasing collaboration in developing countries (Uganda). Chapters of our thesis are systematically arranged to realise these goals (see also Section 1.7). We summarise the outline of the dissertation in the next sections.

Chapter 1: Introduction

We begin the dissertation with the introduction of the study. In the introduction, we define horizontal purchasing collaboration, the advantages and disadvantages, and the rationale for the study. To put the study into practical context, we include the background to the study. The focus of the study is included to inform the reader of which specific aspects the study is concerned with. We then include the relevance of horizontal purchasing collaboration to Ugandan entities.

Chapter 2: The research approach

In Chapter 2, our objective is to justify and present the relevant methodological choices that enable us to realise our goals. We include the philosophical perspective of our research. Since our goals involve understanding, explaining relationships and application, we accordingly find merit in using the Van Aken (1994) design of not only looking at ñhow organisations workò (matching with our first two goals of understanding), but also considering ñhow should organisations workò (matching with our third goal of application). This means we have to strike a balance between rigour and relevance of our work. For this reason, we include an analysis of the rigour-relevance dilemma and link this to our study.

Chapter 3: Literature review

After introducing our study topic and showing why we make various methodological choices, we consider the theoretical review of the issues we are studying. Our objective is to identify relevant knowledge holes in horizontal purchasing collaboration. We do this by considering various related theories to collaboration and analysing their relevance specifically to our study. We review the behavioural constructs and the models which have used a behavioural approach to explain collaboration. We develop hypotheses and derive suggestions for guidance on how horizontal purchasing collaboration should be handled in practice (Chapter 7).

Chapter 4: Exploratory studies on current horizontal purchasing collaboration in Uganda

In Chapter 3, we state that there are hardly any publications available on horizontal purchasing collaboration that may address issues particular to developing countries and Uganda. We therefore carried out two exploratory studies with an objective to better understand the issues in our study, and to further develop hypotheses. We also derive suggestions to how horizontal purchasing collaboration should be applied.

Most of this work was presented and published in the IMP 2006 conference proceedings and in the Journal of Global Business Issues. This chapter and some of the chapters that follow are written in such a way that they can be read and understood on their own as in the theses of, among others, Cruijssen (2006), Glatthorn and Joyner (2005), Heijboer (2003), and Schotanus (2007). In Chapter 4, we aim at partly answering the following question: *What is the state of current horizontal purchasing collaboration in Uganda?* We use the results of this chapter as a further basis for hypothesis development and practical implications (Chapter 7).

Chapter 5: An in-depth case of horizontal purchasing collaboration in Uganda

In Chapter 5, we consider the Justice Law and Order Sector (JLOS) case. This is a relevant practical case. We found it interesting in revealing some insights to further develop hypotheses and use in the application of horizontal purchasing collaboration.

We introduce and justify the case, then include the method we use in analysing the in-depth case, the general and procurement related background of the JLOS horizontal purchasing collaboration, and the motivation to collaborate under the Sector Wide Approach (SWAp) framework. We include a detailed discussion of the findings, develop hypothesis and finally derive lessons for practical implications (Chapter 7).

Chapter 6: The survey

In Chapters 3, 4, and 5, we develop hypotheses. Whereas Chapter 3 gives a strong theoretical base which leads to correlational hypotheses, the exploratory studies (Chapter 4), and the in-depth case (Chapter 5), mainly give practical insights that support the development of hypotheses that deal with the current level of variables under the study. In Chapter 6, we extend the knowledge gathered over the previous chapters to carry out a survey to test the hypotheses posed. We apply more relevant methodological options (and justify how and why) in the various survey processes with a high level of rigour to ensure valid results.

We present the findings and discuss results of the survey, according to the hypotheses. We present the hypotheses that seek to know the level of existence of variables in Uganda first, and then proceed with the hypotheses that deal with correlation between the variables. After the presentation of the findings, we present a conceptual model with results. We then present the limitations met in the study and end with practical implications.

Chapter 7: A collaboration development process model

The previous chapters, specifically Chapter 3 (literature review), Chapter 4 (two exploratory studies), Chapter 5 (in-depth case study), and Chapter 6 (the survey) give us insights that enable us to realise our third goal of the study (application). We extend these insights to Chapter 7, to suggest a collaboration development process model. We do this by carrying out a detailed case study to fill in the missing elements in the known knowledge of starting and or sustaining a horizontal purchasing collaborative initiative in developing countriesô context.

Chapter 8: Practical check

From our findings, we find out that the level of collaboration is important for realisation of benefits of collaboration. From our model, we note that improving the level of collaboration is determined by an improvement in the behavioural factors (trust, commitment, dependence and reciprocity). We use theory to provide guidance on how these behavioural factors can be improved. We then carry out an empirical check, to test the correctness and usefulness of the suggested guidance.

Chapter 9: Wrap up

In Chapter 9, we aim at giving a summary of the whole thesis. We restate our research goals and hypotheses. For each chapter, we include a summary of the methods used and the major findings.

1.7 Overview of the thesis

We aim at understanding horizontal purchasing collaboration and how to apply it in Uganda. We first introduce the study in Chapter 1. In Chapter 2, we explain the research approach in more detail. Chapter 3 (literature review), Chapter 4 (exploratory studies), and Chapter 5 (in-depth case) enable us to develop hypotheses and derive insights for the practical guidance. We then conduct the survey (Chapter 6), to test hypotheses posed. Again, Chapters 3, 4, and 5 enable us to get insights on how horizontal purchasing collaboration should be handled and improved (Chapters 7 and 8). In Chapter 9, we wrap up the study. In Figure 1.1, an overview of the thesis is presented.

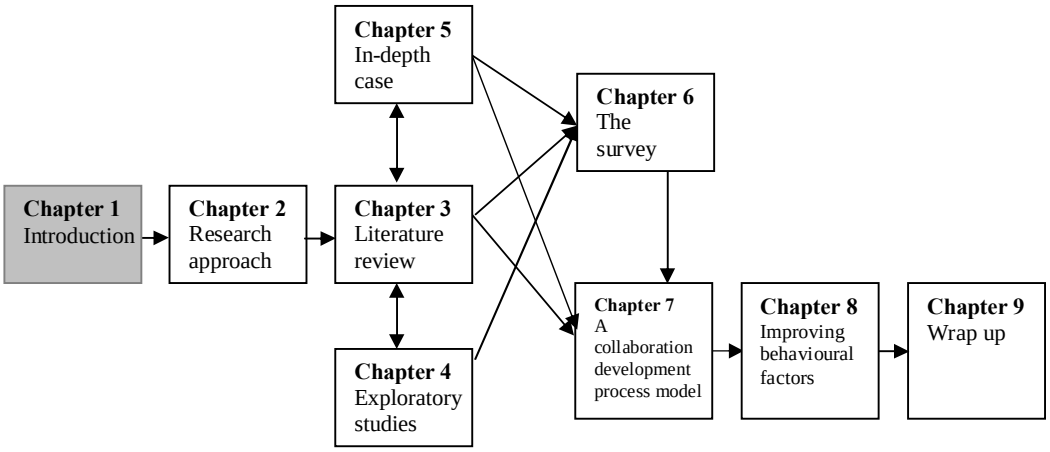


Fig. 1.1 Research outline

Chapter 2 – The research approach

2.1 Introduction

In Chapter 1, we introduced our study on horizontal purchasing collaboration. In this chapter, we present and justify the research strategy we adopt to realise our goals. We link our work to the general philosophy of science. To show how our research differs from other research undertakings, we present our methodological points of departure.

This chapter will be a base of our research philosophy and methodological choices in the subsequent chapters. We include Figure 2.1 to show the position of Chapter 2 in the outline.

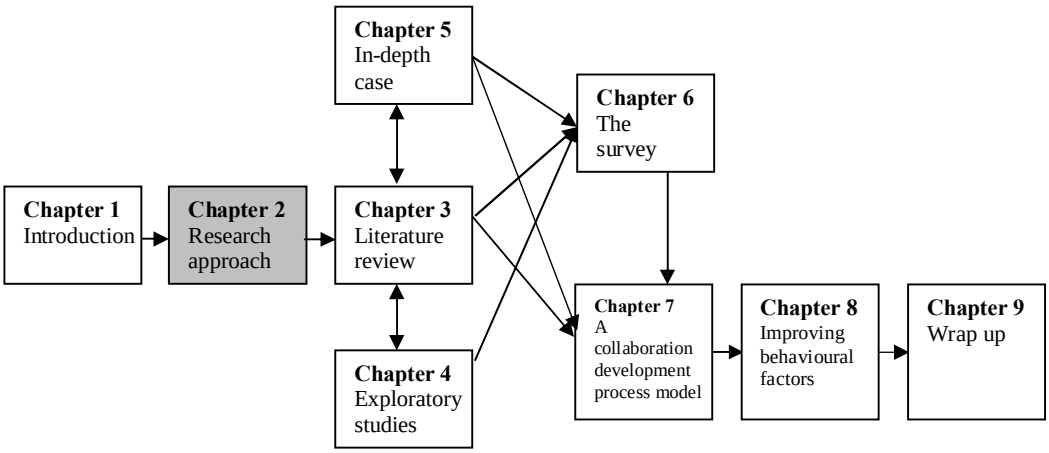


Fig. 2.1 Research outline

2.2 Methodological points of departure

For our methodological points of departure, three points are relevant. First, we use a methodological pluralist approach. Second, we take positivist and anti-positivist approaches as complementary. And third, we carry out both descriptive and prescriptive research. In the next sections, we discuss these three points.

Methodological pluralist approach

This study takes up both a case study design and a survey design. Our case study design seeks for deep qualitative data, especially by interviews, to understand horizontal purchasing collaboration issues. Under the case study approach, we also use some aspects of exploratory designs. The exploratory design is relevant since for public procurement some of the issues being investigated are new and no previous research in Uganda exists. It is also relevant to get insights for further future inquiry (Yin, 2003).

Our survey design uses a cross-sectional approach to get quantitative data and make quantitative predictions of factors related to horizontal purchasing collaboration. It also enables us to analyse correlations between various constructs.

Using two different methodological designs in social studies is widely accepted. This is due to the ontological uncertainties that still exist in social sciences (Arndt, 1985; Creswell, 1994; Hunt, 1991).

Positivist and anti-positivist approaches

Research being a human action, is grounded on philosophical perspectives (Amaratunga and Baldry, 2001). It is therefore useful to understand the philosophical positioning of our research to help us appreciate alternative designs and methods and to identify the most relevant methodological design(s) and method(s) for the study on hand.

In the philosophy of science, there is a clear dichotomy between the positivist approach and the anti-positivist approach to research. Positivism, among other things, is about searching for causal explanations. It reduces the whole into its simplest possible elements to facilitate analysis (Easterby-Smith, 1991). Positivists rely mostly on quantitative methods. Post-positivists rely on narratives and case studies with varying skills of statistical summary as well. Anti-positivists (sometimes referred to as realists or interpretivists) are proponents of qualitative research (Schurr, 2007). They understand reality as socially constructed rather than objectively determined.

The reality of research involves a lot of compromise between the two approaches. In relationship marketing and management, there has been a deliberate policy of using and accepting both approaches (Milliken, 2001; Schurr, 2007). According to researchers who use and/or accept both approaches, good research adopts a position on the continuum between the two approaches (Burell and Morgan, 1979; Gill and Johnson, 1991:36; Hunt, 1994). The combination of both approaches in one study is recommended by a number of researchers (Denzin, 1970; Hammersley and Atkinson, 1983; Jick, 1979). They argue that advocates of a given methodological approach should incorporate insights from others (Morgan and Smircich, 1980). This implies not competing approaches, but a multi-method approach, described by Trow (1977) as methodological pluralism.

In our research, among other things, we seek to understand causations between trust, commitment, reciprocity, dependence, level of collaboration, and benefits for an individual entity. Our study is also based on the premise that Ugandan orientation and interpretation toward horizontal purchasing collaboration may be different from how it is for developed countries, making the orientation and interpretation socially constructed. In addition, we do not only gather facts to measure correlations, but also appreciate the different constructions and meanings respondents place upon their experiences. As Remenyi et al. (1998) noted, we take both approaches as complementary rather than as opposite extremes to avoid an ñepistemological crisisò (Susman and Evered, 1978).

Descriptive and prescriptive approaches

Van Aken (1994) provides two alternative approaches of organisational research. The first descriptive approach centres on how organisations work in practice. The second prescriptive approach centres on how organisations should work.

How do organisations work in practice?
The first approach is about the traditional explanatory sciences of the empirical cycle that include observation, induction, deduction, testing, and evaluation. In our study, this approach is used at the exploratory study phase. This enables us to understand how public purchasing units carry out the horizontal purchasing collaboration. It also enables us to suggest how they should work, as suggested by Van Aken (1994).

How should organisations work?
The second approach centres on the question how organisations should work. This aims at diagnosing a situation, defining the problem, and designing practical methods to improve the situation. In the study on hand, we apply both approaches. We do not only explain events, but also suggest practical methods for improving the horizontal purchasing collaboration situation in developing countries and specifically in Uganda. We do this to at least partly resolve the rigour ï relevance dilemma.

Resolving the rigour – relevance dilemma
Many research projects primarily evolve out of the desires of practitioners (Bontis, 2002) and therefore have a relevant origin. At the same time, researchers have the ambition to be in an academic discipline and therefore require rigour. To improve rigour, academicians often tend to promote empiricism. However, the quantitative approach that relies on empiricism is not free from criticism, as there exists a hole in its operationalisation, making its validation and practical relevance questionable (Andriessen 2004). Equally, the qualitative approach has its own holes, because apart from meeting criticism of insufficient rigour, the tests of the practicability of the research results may not exactly be allocated to the research itself, it could be because of other factors, such as implementation related factors (Andriessen, 2004).

Due to the rigour ï relevance dilemma described above, there is an increasing gap between knowledge needed in the practice of business and knowledge produced in the academic field (Andriessen, 2005). We deal with this dilemma by taking up both the quantitative and qualitative approach. In the next chapters, we explain the current horizontal purchasing practices in Uganda (qualitative approach) and then carry out a quantitative survey to analyse the relationships between behavioural constructs and collaboration (quantitative approach). Finally, we investigate other factors that are necessary to have a successful horizontal purchasing collaborative arrangement (qualitative approach). This qualitative part may not be deeply rooted in scientific rigour, but it enables us to improve the validation of our results from the quantitative approach. This compromise is supported by Andriessen (2004) and is a trade-off between rigour and relevance.

Regarding the qualitative research procedures, we note that we do not completely test our intervention results. We do not do this as it may be difficult to measure the effects of the tested method (Andriessen, 2004). Moreover, there is a logical hole in implementation. For instance, the failure of an intervention could be because of a poor research methodology or because of poor implementation. The success could be because of a change in environmental conditions, which are difficult to control for.

2.3 Conclusion

In our study, we aim at understanding, explaining how and why behavioural aspects influence horizontal purchasing collaboration and their application in developing countries, specifically in Uganda. This kind of research is new in Uganda. Literature on our study is not fully adequate to build on. This makes some parts of the study explorative, with the aim of getting insights for future academic inquiry. Other parts of this thesis build on the explorative results using a quantitative approach.

We argue that it is not enough to simply accumulate knowledge. It is worthwhile to know how to apply this knowledge in practice. Whereas rigour is needed in research, it should not be compromised for relevance of the research results. Therefore, in the final chapters of this thesis, we aim to qualitatively explore the application possibilities of our explorative and quantitative findings.

Chapter 3 – Literature review

3.1 Introduction

In Chapter 2, we discussed the general methodological choices that we make to help us realise our research goals. In Chapter 3, we review the literature to lay a foundation for our subsequent discussions. To place our study into the context of existing knowledge, we review some of the theories (Section 3.2) and literature (Sections 3.3 and 3.4) related to collaboration. We justify our choice of the behavioural approach to collaboration in more detail than in Chapter 1 (Section 3.5). For each of the independent constructs under study, we discuss its meaning, its importance in a horizontal purchasing collaboration, and the situational analysis in Uganda. We review the models that explain behavioural issues in collaboration and explain how they fail to explain what our research aims for. We then formulate hypotheses and a conceptual model.

We include Figure 3.1 below to show the position of Chapter 3 in the outline.

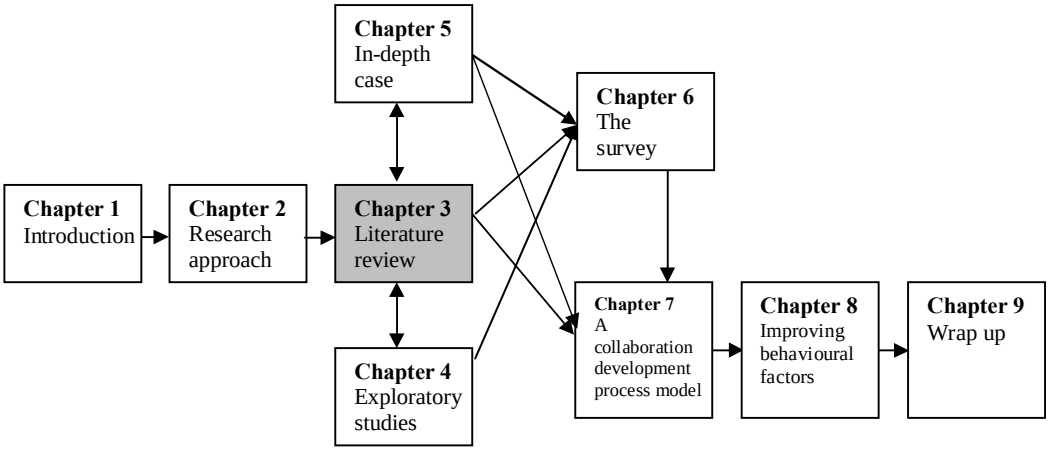


Fig. 3.1 Research outline

3.2 Theories related to collaboration

As one comprehensive theory of inter-organisational collaboration has not yet emerged (Hoffmann and Schlosser, 2001), we briefly present in this section, the main theories that are related to the concept of horizontal purchasing collaboration. Current theory hints on networking theory, social exchange theory, resource based theory/view, and transaction cost theory/analysis. For improving behavioural factors for collaboration, current theory hints on institutional theory and resource dependence theory. In the section below, we explain these theories and discuss their relevance for our work.

Networking theory

In recent years, the rise of networking has been dramatic. Even state and public organisations and departments have moved into networks. Networking is quickly

following the rationale of the global economy, and as a result, we are now witnessing the formation of networks on a global scale. Organisations belong to networks to enable them to deal with meta-problems. Networks are mostly voluntary (Mitchell and Shortell, 2000; Weiner et al., 2000), member controlled, and self-regulatory.

Networking theory is one of the major theories related to collaboration (Burt, 1982; Nohria and Eccles, 1992; Wasserman and Galaskiewicz, 1985). It conceptualises autonomous organisations as embedded in networks of linkages, which both facilitate and constrain their actions and shape their interests (Nohria and Gulati, 1994). Together, the organisations reach goals that none of them can reach separately (Chisholm, 1998). The network approach offers a particularly powerful descriptive tool for analyzing contemporary inter-organisational exchange.

Proponents of a network perspective argue that the most significant aspects of an organisation are not its individual characteristics, but it is the set of the other organisations with which it interacts and the pattern of relationships among them. Though these organisations look legally separate, they are in actual sense operationally synchronised. As Barley et al. (1992) put it, ónot only are the organisations suspended in multiple, complex, and overlapping webs of relationships, the webs are likely to exhibit structural patterns that are invisible from the standpoint of a single organisation caught in the tangleô. These structural patterns, and the positions of organisations within them, have a significant impact on the degree to which organisations are able to control their own actions and influence those of others.

Relevance of the network approach to our study
Clearly, organisationsô participating in one or more horizontal purchasing collaborations is a form of networking. Networking theory confirms the importance of such collaborations ï in case they are successful ï as it emphasises the value of these relationships. This is especially the case for Ugandan PDEs, as these PDEs are relatively small and are often faced with meta-problems. For example, managing the procurement of works in a smaller non-technical PDE is very difficult without referring to the PDE associated with works. This makes Ugandan PDEs unable to individually attain higher goals. They need to network so that they either purchase together, and or operationally refer opportunities to each other.

Based on the theory, it can also be stated that it is important that organisations are able to network. Note that in Uganda, even PDEs are often not willing to share confidential information. There is imperfection of knowledge among the PDEs on, among other things, opportunities, availability of experts in the country, availability of more efficient and effective suppliers, and better quality products.

Social exchange theory
Social exchange theory concerns a joint activity with at least two parties and each party has something the other values (Lawler, 2001). Both traditional marketing and neoclassical exchange theories believe transactions are a one-time exchange of values between two parties, who have no prior or subsequent interaction (Webster, 1992). However, Lazonick (1990) notes that this definition only works in so far as collaborating parties have equal, unrestricted access to each otherôs resources. As soon as this condition is violated, the conditions for market exchange disappear, and

an impersonal relation between the parties is necessary. This is when the behavioural factors become more important in the relationship. Factors such as trust, commitment, reciprocity, and dependence will keep the relationship on going.

Relevance of social exchange theory to our study
In horizontal purchasing collaboration in developing countries and in Uganda, PDEs are at the same level, in terms of authority, structure, and operational procedures. There is access, though sometimes limited, to each others resources. The social exchange theory can therefore be applied. For example, the Ministry of Education and Sports offers human skills (in terms of highly skilled personnel to help in bid evaluation), while the Ministry of Works and Transport offers specialised expertise in deals that concern works. Both PDEs have interests to deal with each other because they can gain from each other.

Social exchange theory agrees that inter-organisational relationships depend on the social networks built on behavioural factors, such as trust and commitment. This theory justifies the choice of behavioural constructs as an important approach to understanding collaboration

Resource based theory/view
The Resource Based View (RBV) looks at resources as being an important source of competitive advantage to an organisation. Among other things, such resources include assets, capabilities, organisational processes, firm attributes, information, and knowledge. Wernerfelt (1994) argued that competitive advantage of a firm is based on its resources and ability to exploit them, rather than on exogenous conditions.

We note that in the public sector, entities do not largely compete over business as is the case in private sector (perhaps they have started to compete for funding and suppliers who have unique and limited goods and skills). However, the core focus is not yet about competition (Bakker et al., 2008) but about efficiency and effectiveness of running their individual entities.

In an organisation with different units (in our case entities), RBV maintains that a capability can sometimes be much more valuable when combined with others (Ordanini and Rubera, 2008). This synergistic effect that different capabilities may have (Mata et al., 1995) fits into our collaboration study. The central idea of RBV is that through collaboration, the parties get access to some resources that they themselves lack (Karjalainen, 2008). For example, many PDEs in Uganda do not have sufficient manpower (Auditor General Report, 2007); a condition which motivates PDEs with low personnel requirements (both in numbers and expertise) to collaborate with those who have relatively sufficient personnel requirements.

According to Powell and Dent-Micallef (1997), combination potential is leveraged by conditions of co-specialisation; where one capability has less or no value without the other one while complementarity arises when the value of a capability is enhanced by the presence of another one, due to synergistic effects.

Relevance of RBV to our study
RBV seems particularly relevant for examining horizontal purchasing collaborations in Uganda, because PDEs use these collaborations to gain access to other PDEsô

valuable and rare resources. A few studies have already applied RBV to collaborations, but they apply RBV to limited aspects (Tyler and Steensma, 1995; Varadarajan and Cunningham, 1995). So, using RBV to explain collaboration, especially in a developing country like Uganda with notable shortages in resource availability to individual PDEs, could be of theoretical and practical contribution. The RBVôs rationale is about value maximisation through pooling resources; thus entities are viewed as attempting to find optimal resource boundary through which the value of their resources is better realised than through other resource combinations (Das and Teng, 2000).

We use the VRIO (Value, Rarity, Imitability, and Organisation) framework (Barney, 1991; Conner, 1991; Dierickx and Cool, 1989) to analyse the applicability of RBV in the Ugandan PDEs context. We use the VRIO framework because its elements apply to PDEs in Uganda (see Table 3.1). For instance, some PDEs have more value than others in different resources than the others. Some of the PDEs have unique resources that others need to use, yet they can not easily imitate them.

Table 3.1 Applicability of RBV to the study

VRIO Framework	**Case for Ugandan PDEs**
Value	Resources/capabilities in Ugandan PDEs are of value (economic importance). For example, some PDEs have skills and accumulated tacit knowledge that can improve their positions through saving costs by carrying out their own tasks other than hiring private experts.
Rare	Resources/capabilities are rare in some PDEs and not available to other PDEs.
Inimitable	The resources/capabilities in Ugandan PDEs meet the criterion of being isolated from imitation or substitution. Resources/capabilities in a PDE are specialised and immobile, making it costly to replicate (Peteraf and Bergen, 2003). Even if replication was possible, it would take a lot of time for entities to do so.
Organisational support	There is organisational support, with management support and processes to support collaboration.

Whereas a resource is an observable asset, a capability is not (Makadok, 2001), thus making it difficult for the latter to be imitated. Horizontal purchasing collaboration may be necessary in bringing up entities together to share some of the capabilities that may be difficult to imitate if they operate independently. PDEs have various specialisations, similarities, and also differences, but they are complementary. For instance, some of the PDEs are more technical in nature (e.g., Ministry of Energy, Ministry of Works) whereas others have a service nature (e.g., Ministry of Labour, Ministry of Information and Communication Technology). Their resources are only available to others when the actors operate together (Kamann, et al, 2004). So, RBV helps us to appreciate that shortage of resources stimulates horizontal purchasing collaboration (Wernerfelt 1984).

Transaction cost theory

Transaction Cost Economics (TCE) theory (Williamson, 1981) is a common research framework for studying inter-organisational collaboration. TCE suggests that collaborating entities will work together as long as the total transaction costs of the group members are lower than if each worked separately (Schotanus, 2007).

Four key concepts arise out of the TCE. In the next sections, we discuss these concepts.

Bounded rationality
Bounded rationality emphasises that although people may intend to make a rational decision, their rational capacity is limited since they can not accurately evaluate (or even know) all the possible alternatives (Hindess, 1988). In horizontal collaborative relationships, benefits are expected in the future. Partners may not know the outcomes of collaboration and this may affect the formation and sustainability of collaboration. However, bounded rationality can be reversed through mutual forecasts of the parties, and taking a long term view of the relationship (Ganesan, 1994). The behavioural perspectives of trust and commitment enable the entities to focus on outcomes rather than emphasising on the current operations. Trust smoothens out the business relationship operations and makes partners view the short run benefits from an opportunistic defection as being outweighed by the long run benefits from continued cooperation (Montgomery, 1998).

Opportunism
Opportunism is self interest seeking with guile (Williamson 1985). Collaborating partners may seek to exploit situations. In a well functioning collaboration, when parties focus on the quality of collaboration outputs, it reduces opportunism. As a result, trust and commitment typically increase (Wilding and Humphries, 2006).

Asset specificity
Asset specificity is about substitutability, complementarity, and redeployment of assets owned by parties in a collaborative arrangement. Asset specificity discourages collaboration when one partner to an exchange has invested resources specific to that exchange which have little or no value in an alternative use. Asset specificity dimensions include natural resources, physical assets, human resources, dedicated investments which can not be put to other uses (Williamson, 1983), and time specificity where value is highly dependent on reaching the user within a specified, relatively limited period of time (Malone et al., 1987).

Information asymmetry
Many business exchanges are characterised by incomplete, imperfect or asymmetrical information. It is incomplete to the different parties in the collaboration, even when they all face the same situation. For instance, in most cases, Ugandan ministries have public information, which is known to all parties, but there is also private information which is available to a few.

Relevance of TCE to our study
From the discussion above, it is clear that TCE views people as calculative. Longer runs, larger batches, indirect costs divided by larger volumes, learning curve effects, are some of the possible causes for reduced costs (Kamann, et al, 2004). Kamann et al., however, note that though cooperation increases internal and external coordination costs, such costs are assumed to be off-set by better prices ï as a result of leverage effects or even oligopolistic or monopolistic market behaviour ï and production scale effects plus lower purchasing costs.

Institutional theory

Institutional theory suggests that in order to survive, organisations should conform to the rules and belief systems prevailing in the environment (DiMaggio and Powell, 1983; Scott, 1995). The theory focuses on the deeper aspects of social structure and suggests that structures, rules, norms, routines, problem solving mechanisms, implementing promises, and involvement of stakeholders are authoritative guidelines for social behaviour.

Relevance of institutional theory to our study

The collaborative initiatives in Uganda are relatively in their initial phases of development. They do not yet have a clear working structure. The rules, norms, and routines have not yet been fully institutionalised. The necessary actions for improving behavioural factors like implementing promises and involving top management can be explained by the institutional theory.

Resource dependence theory

Resource dependence theory is based on the premise that the control over critical resources of one focal organisation is the most important determinant of organisational behaviour (Werner, 2008). The basic argument is that organisations are dependent on resources, which resources originate from the environment. Since the environment contains other organisations, each organisation requires other organisations since they have part of the resources needed. Each organisation (in our case PDE) therefore develops behaviour aspects (trust, commitment, reciprocity, and dependence) through developing competences, walking the talk, ensuring that there are timely interventions, and developing experiences to improve.

Relevance of resource dependence theory to our study

The resource dependence theory is based on control of critical resources. PDEs in Uganda lack critical resources. This makes them depend on other entities and also determines the individual entity behaviour to collaboration. Consequently, the actions which are necessary by individual entities to improve behavioural factors for collaboration like developing competences, walking the talk, and timely intervention can be explained by the resource dependence theory.

Choice of theories to use in the study

We note from literature and practice, that all the theories discussed above are used to explain collaboration. However, we mainly consider five theories: networking theory, RBV, social exchange theory. For developing behavioural factors (Chapter 8), we also mainly consider institutional theory and resource dependence theory. These are most relevant to our study in the developing countries (note that the choice of these five theories does not mean the rest or other theories, cannot be applicable or that we cannot infer to them in our study). We use these theories for developing hypotheses. We do not mainly use the TCE theory since the transaction costs upon which the theory is based, is not a primary consideration in government procurement entities. We elaborate more on our choice of theories in the respective sections in which we develop our hypotheses.

3.3 Literature on horizontal collaboration

In this section, we summarise the general published literature on horizontal collaboration. We find it necessary to first review general literature, because according to Kamann (2004), theoretical arguments from general collaboration literature and the various listings of requirements, also apply to joint purchasing activities for a large extent.

We mainly use literature published in key journals. Though literature from textbooks mostly overlaps with journal publications (Schotanus, 2007), we selectively consider literature from textbooks that is not explicitly replicated in the journals.

Table 3.2 Published literature on horizontal collaboration

Author(s)	Contribution to the field of horizontal collaboration
Hoffmann and Schlosser (2001)	Although there is an extensive amount of literature dealing with inter-organisational relationships, a comprehensive theory of inter-organisational relationships has not yet emerged. Both content oriented factors and process oriented factors play an important role in cooperative (collaborative) purchasing. Hoffmann and Schlosser make an important contribution by identifying (critical) success factors for horizontal collaboration.
Fine and Whitney (1996); Macdonald (1995); Singh and Mitchell (1996)	Although some studies have portrayed collaboration negatively, collaboration is generally appreciated to largely reduce the negative aspects, especially if social aspects of collaboration exist.
Ireland et al. (2002)	Strategic alliances are an important source of resources, learning, and thereby competitive advantage. Few entities have all of the resources needed to operate effectively in the current dynamic landscape. Thus, entities seek access to the necessary resources through alliances. To maximise cooperation among the partners, a trust-based relationship must be developed.
Das and Teng (2001a)	All entities in collaboration should not perceive they are under rewarded, so that they restore equity themselves. Restoring equity themselves would lead to reduced levels of commitment to the collaboration
Naut et al. (2001)	Success of horizontal alliances depends crucially on aligning individual alliance-member incentives with those of the alliance as a whole, therefore it is important to find coordination mechanisms that achieve this alignment and are simple-to-implement.
Chisholm (1998)	Collaboration involves a set of autonomous organisations that come together to reach goals that none of them can reach separately.
Perry et al. (2002)	Trust and commitment are the building blocks of alliance effectiveness.
Oum et al. (2001)	Horizontal alliances make a significant contribution to productivity gains. They also found out that the level of cooperation in horizontal alliances influences the strength of alliance effect on productivity and profitability
Castells (1996)	Inside the collaboration, new possibilities are relentlessly created, while outside the collaboration, survival is increasingly difficult.
Anderson and Narus (1990)	In a well functioning collaborative relationship, the boundary between the involved firms becomes blurred so that it is hard to discern where one organisation begins and the other ends. The developed collaborative norms like role integrity, solidarity, flexibility, and information sharing become an integral part of operations, which make the parties aim at similar goals.
Doukidis (2008)	Collaboration has been difficult to implement. This has been because of high level of reluctance to implement horizontal collaboration due to the lack of strategic decision support framework. Whereas relatively more efforts to implement horizontal collaboration have been put in economic, technical, and

	other perspectives, the behavioural aspects like trust, commitment, reciprocity, and dependence have notably been missing.
Enakrire and Onyenania (2007)	Cooperation and coordination of systems managers and the advocates of networking have been less successful in Africa, with notable insufficient meetings.
Enakrie and Onyenania (2007)	Inadequate human resources in Africa results into centralisation of technical expertise in an attempt to get the greatest value out of a scarce resource

Horizontal purchasing collaboration as noted above is important for developing countries, since with its adoption, conditions can be realised such as sharing resources, the need to seek economies of scale, and other published benefits, which are much needed in the developing countries.

The existing literature suggests that to cope with todayôs increasing complexity, organisations have become more collaborative. The literature also notes that working together in collaboration involves behavioural aspects, which need to be well explained. Behavioural aspects have a strong influence on collaboration, especially where there have been no experiences to motivate collaboration.

3.4 Literature on horizontal purchasing collaboration

After presenting general literature on horizontal collaboration, we now consider specific literature on horizontal purchasing collaboration. We note literature is still rare, especially literature relating to the developing countries like Uganda. We mainly consider literature published in recognised journals.

Table 3.3 Published literature on horizontal purchasing collaboration

Author(s)	Contribution to the field of horizontal purchasing collaboration
Essig (2000); Rozenmeijer, (2000a)	The authors discussed the horizontal purchasing collaboration practices used by local entities to transfer to central entity activities such as bidding and contract management. This approach makes it possible for the members of the group to acquire additional power vis-à-vis suppliers; consequently, they get more favourable conditions than those they would have obtained individually. In a similar way, consolidation reduces administrative costs, since the negotiation process is performed by only one organisation, instead of all local entities.
Essig (2000); Essig and Arnold (2001)	The authors noted that collaboration through vertical relationships has been given due recognition, but collaboration through horizontal relationships (pooled purchasing) has been largely ignored. The authors wonder why despite the known benefits of horizontal purchasing collaboration (which seem to be key targets for entities), fewer initiatives are recognised.
Tella and Virolainen (2005)	The authors noted that horizontal purchasing collaboration seems to be widely applied. However, relatively little research has been undertaken and published. The processual dynamics underlying the evolution of alliances are still a relatively unexplored phenomenon.
Galaskiewicz (1985)	The motivation of the author is based on the highly fragmented body of knowledge in purchasing collaboration, and the uneven scholarship. The author notes that few studies have been replicated and that what is available remains ñtentative findingsò. The author reviews three areas of inter organisational relations; arenas of resource procurement and allocation, political advocacy and organisational legitimation. The author notes that analysts have focused on power dependency and the

	problems of overcoming environmental uncertainty, coalition formation, and efforts at collective action and organisational efforts at identifying with highly legitimate societal symbols. The author notes that organisations have found a wide variety of ways to solve collaborative purchasing issues.
Laing and Cotton (1997)	The authors noted that parties in collaboration should have common objectives and a coterminosity of interest and should sacrifice for the good of the collaboration. They also noted that communication is vital in operations of collaboration, because it reduces tensions between participants. The study, however, found out that purchasing collaborations had failed to manage communication efficiently. The authors also noted that in making purchasing decisions, aimed at achieving majority support, consortia lead to disaffection for individual members and stifled innovation in terms of contracting.
Stinchcombe (1984)	The author notes that the trend towards large scale buying of health insurance, life assurance, and pension or annuity plans through employers brings up problems of sovereignty, problems of the incentives of service providers and problems of availability of services which are only available through collaborative purchasing through employers. The author suggests the needed social indicators for policy assessment.
Ball and Pye (2000)	The authors noted that most purchasing groups ore informally organised in their early stages of operations
Fontenot and Wilson (1997); Hakansson and Snehota (1995); Lewin and Johnston (1997); Vlosky and Wilson (1997); Wilson (1995)	According to the authors, many models have been developed and supported, especially on factors that influence the performance of collaboration. However, no generally acceptable model of how collaborations develop has yet been published. Since several different versions have been suggested. Wilson (1995) describes development of collaboration as being in infant stage.
DôAunno and Zuckerman (1987); Fu et al. (2006); Johnson (1999); Pett and Dibrell (2001); Saz-Carranza and Vernis (2006).	These authors published knowledge about development of horizontal purchasing collaboration. Apart from Johnson (1999) who developed a five stage conceptual model (internal, informal external, developing external, formal external, and redevelopment), the rest seem to agree on three key phases of development of a horizontal purchasing collaboration. Though they use different terminologies; they all seem to converge on formation, operation, and outcome stage.
Cruijssen et al. (2007)	The authors suggested that finding a reliable party to lead the cooperation and constructing a fair allocation mechanism for the benefits are the impediments for horizontal cooperation.
Das and Teng (2000); Johnson (1999); Koza and Lewin (2000); Nollet and Beaulieu (2005); Schotanus (2007); Tella and Virolainen (2005);	The authors published information about advantages (motives) of horizontal purchasing collaboration (see also Section 1.2).
Doucette (1997); Granot and Sosic (2005)	When an entity in a purchasing collaboration perceives that other entities are committed, the entity will be committed to the purchasing collaboration. If all entities in a purchasing collaboration benefit equally, the collaboration will be stable
Bakker et al (2008); Doucette (1997); Hendrick (1997) Johnson (1999); Koza and Lewin, (2000); Nollet and Beaulieu (2005); Polychronakis and Syntetos	The authors note disadvantages of horizontal purchasing collaboration; high coordination cost; complexity of collaboration activities, difficulties in standardisation and compliance, free riding, declining cost savings, governance of the collaboration, loss of flexibility and control, member commitment problems, disclosure of sensitive information, supplier resistance, interference by anti trust legislation

(2007); Schotanus et al. (2009); Schotanus et al. (2008); Schotanus and Telgen (2007); Tella and Virolainen (2005)	and losing existing relations with suppliers.

From the table, we note that academic publications that directly explain horizontal purchasing collaboration are relatively rare. This was also noted by Schotanus (2007). Those references available do not specifically address developing countriesô issues. There is a notable lack of solid inquiry on the African and developing world perspective.

The references available do not explain the behavioural differences in between developed and developing countries. These differences mainly relate to availability of resources and the cultural set ups of the developing countries. We identify gaps in the level of existence of the identified behavioural variables, and the extent and direction these variables influence each other, given the developing countiesô context.

Past research seems fragmented, as no single line of argument seems to come out clearly. For example, the behavioural aspects have no line of continuous scientific inquiry. This situation is more pronounced in developing countries than developed countries. We also note that publications that deal with behavioural aspects of horizontal purchasing collaboration are rare. We note that most publications that consider behavioural aspects are more of collaboration in general terms, not specific to horizontal purchasing collaboration. Purchasing being a relatively new function in developing countries, the general literature needs to be tailored to suit the developing countries/Ugandan context.

3.5 The need to understand social factors of collaboration

In this section, we justify why we choose the social dimension as a way of understanding behaviour and applying this to horizontal purchasing collaboration.

We note that quite some previous research concerns the social dimension of collaboration. Researchers who previously studied social factors in the context of collaboration state that collaboration operations are bound with contracts embodied by technological and social constructions, rather than by contracts that are imposed by legal authorities (Hadjikhani and Thilenius, 2005). Economic action is embedded within a social structure in which behavioural issues are vital. Reynolds (1996) in relation to this noted that there is a mood of change that encourages the extension of more human activities into market contexts. The social constructs may be necessary to hold the actors in the collaboration together.

As the collaboration relationship goes on, trust substitutes a formal control mechanism, which reduces individual behaviours. This is because when partners join collaboration, they tend to compromise rather than optimise their individual strategies (Brown and Peterson, 1993) thereby progressively developing trust. Partners keep changing roles and adapt different ways of interacting with each other, creating a circular, not a linear relationship. Formality therefore reduces. Informality then makes collaborating parties devote more time together and creates emotional intensity, mutual confiding, and reciprocal services (Granovetter 1973). The parties in

collaboration become inquisitive in knowing what is going on with the others. Parties then see each other as ethical and well intentioned (Malhotra, 2009). The various dimensions of a relation interact and self organise into a mutually consistent pattern of performance, perceptions and attitudes representing the ópersonalityô of a relationship.

From the sections above, it becomes clear that we already know quite a lot on the social dimension of collaboration. However, Cullen et al. (2000) write that most previous research focuses on the hard side of collaboration management (e.g., financial and operational matters) and that more attention should be paid to the soft side of collaborative management. Cullen et al. state that attention should be shifted to trust, commitment, and norms of reciprocity). Our literate overview confirms this notion of Cullen et al. for the specific field of horizontal collaborative purchasing (see Section 3.4). Several scholars have published knowledge about non social factors of horizontal purchasing collaboration, but limited research has been done to the social dimension of horizontal purchasing collaboration. More than that, there is a remarkable lack of literature on the social dimension of (horizontal purchasing) collaboration in the context of developing countries. This provides an interesting research opportunity for our study as we discuss in the next section.

3.6 Collaboration in Uganda

Since research on (horizontal purchasing) collaboration has relatively been done more in the developed world, we consider the developing countries and Uganda in particular. In Table 3.4, we present scholars who support our reasoning.

Table 3.4 Literature supporting developing countries collaboration

Author	Contribution
Meyer (1997); Rawwas et al. (1997); Sommer et al. (1996)	Whereas it is clear that behavioural studies have had a rich research base, they are based on western (notably American) research. Models should be made relevant to African situations, because situations may be different from developed countries. The time to test behavioural constructs in non-western countries has come.
Gemunden (1997)	Most research on Industrial Marketing and Purchasing (IMP) has been theoretical and focused on relationships -and networks-based frameworks. Yet, it mostly ignored international or cross-cultural dimensions.
Easton et al. (2002)	Taxonomy of IMP papers concentrated on traditional concepts of IMP research, such as relationship characteristics, actors-activities-resources models, and internationalisation and identified relatively few cross-cultural contributions.
Samiee and Walters (2003)	Stressed: ñ[it is] striking that cultural factors are not taken more explicitly into account in most of the IRM studies reviewedò. Moreover, ñin an international context, cultural diversity is a fact of life that can be expected to have important implications for the development and maintenance of relationshipsò.
Gronroos (1994); Palmer (2000)	Collaborative relationships are conditioned by unique cultural contexts and by the cultural contexts where they take place.
Atkinson and Butcher (2003)	The conceptual equivalence of behavioural aspects in developing countries is likely to be different from developed countries. These constructs are socially constructed.

From the motivation above, we note that few researches to social dimensions have been carried out in developing countries. More specifically, even fewer researches exist in Uganda. Those research articles that do exist mostly simply refer to Uganda on general collaboration issues and not in detail. We show these studies, their contributions to collaboration and some opportunities for further research in Table 3.5.

Table 3.5 Literature related to collaboration in Uganda

Author(s)	Main contribution	What is not covered?
Kinengyere (2007); Magara (2002); Magara and Nyumba (2004);	Government in Uganda should set up a coordinating mechanism through which it should ensure shared library services. There should be maximum use of little available resources through collaboration. However, there is more collaboration in private organisations than in public organisations. Magara and Nyumba explain this by showing that private organisations carry out general collaboration through online communication, information processing, resource sharing and awareness programmes.	The studies did not consider how to collaborate and the dynamics involved The behavioural issues were not considered.
Passerini (2006)	In developing countries where diseases are worsening, concerned public units can not be the only fighters against diseases because they lack sufficient resources. Passerini stresses that cooperation should be strengthened beyond scepticism, with formation of ñmega communitiesò.	Passerini considered public/private partnerships, which have different rationales of existence, and with deferring amounts and sources of resources. We also note that Passerini studied operational issues on collaboration, not behavioural issues.
Passerini (2006)	Internet would be vital in transforming developing economies through collaboration. National and international internet connectivity is in short supply and limited to a few cities.	The study concentrated on information technology, no social dimension was considered. For example, in Uganda, universities have information technology facilities, but staff do not use them to collaborate. Social reasons have been quoted (Mugisha, 2007) as an explanation to this.
Mitiku and Wallace (1999)	While a region such as Eastern Africa can choose from the best management knowledge the world offers, care is needed in adapting new ideas to local conditions. The authors also warn that cultural factors or otherwise, the disparity between African reality and the application of imported theories remains large.	The study indicates that it is important to take cultural factors into account in further research.

From the motivation above, we note that it is new and relevant to consider the social dimension of collaboration in the Ugandan context. Thus, in the rest of this thesis, we study the social dimension of collaboration in developing countries and specifically in Uganda.

To understand the social factors of horizontal purchasing collaboration in the Ugandan context, we use network theory, resource based theory, and social exchange theory. These theories stress the need for PDEs to ñwork togetherò (Kamann, 2004) and create resources none of them can attain by themselves. The behavioural factors we choose for the study (trust, commitment, reciprocity, and dependence) are the underlying bases for the PDEsô ñworking togetherò arrangement. We note that creating resources through horizontal purchasing collaboration is even more important for Ugandan PDEs which largely have no self sustaining capacity.

3.7 Existing models that use a behavioural approach

In this section, we present two models, which to the best of our knowledge; have used the behavioural approach to explain relationships. We analyse them with a view to suggesting our own model, which fits the Ugandan situation.

The relationship satisfaction model

The relationship satisfaction model focuses on testing the effect of five relational constructs on relationship satisfaction (Terawatanavong et al., 2007). According to Terawatanavong, relational constructs (total independence, trust, commitment, cooperative norms, and conflict) influence the relationship satisfaction. However, the magnitude of influence is moderated by the relationship phases (build up, maturity, and decline/deterioration phases). The model is shown in Figure 3.2.

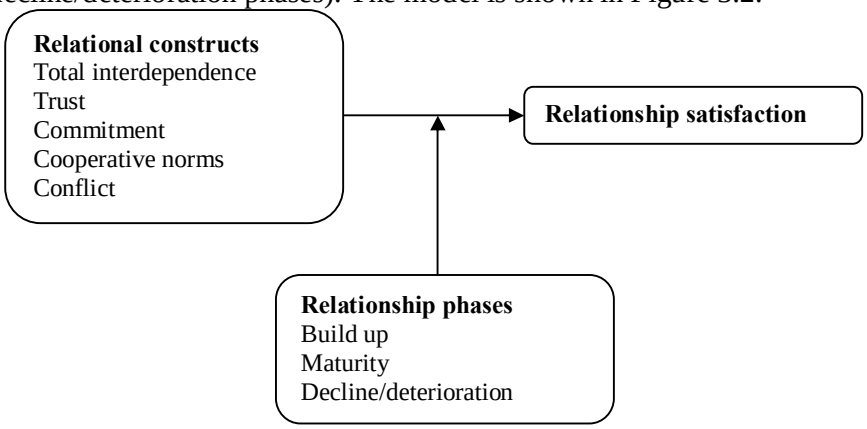


Fig. 3.2 The relationship satisfaction model (source: Terawatanavong et al., 2007)

A critical analysis of the relationship satisfaction model

The model emphasises relationship phases through which one can analytically assess the predictability of the relationship constructs on a relationship. The model considers how relational constructs lead to relationship satisfaction. However, it emphasises that the relationship phases (build up, maturity, and decline/deterioration) moderate how they determine this relationship satisfaction.

The model relates behavioural factors to relationship satisfaction. We note that relationship satisfaction is an outcome, which comes after another output stage. In horizontal purchasing collaboration, we conceptualise relationship satisfaction (outcomes of collaboration) as being attained after having achieved some level of horizontal purchasing collaboration. We consider the level of collaboration as the degree/intensity of common actions. We aim at developing a model that does not have a direct relationship between relational constructs and relationship satisfaction.

Whereas the model advocates for assessing the relational constructs on a phase by phase basis (Dwyer et al., 1987; Wilson, 1995), we note that respondents at any point in time, when asked to evaluate a relational construct such as commitment, are likely to be in different phases; some early and some late (Terawatanavong et al., 2007). The results may cancel out and assuming respondents are at same relationship phase may be misleading.

In our study, we consider relationships that have just started or are yet to start. This makes the time dimension unsuitable for similar studies that are interested in investigating the recently established relationships or want to design rules for starting and sustaining collaborations.

The integrated model of the behavioural dimensions

The integrated model of the behavioural dimensions considers ten behavioural parameters concurrently (Leonidou et al., 2006). Leonidou et al. aimed at understanding the implications of these parameters in a simultaneous unified model. The parameters include distance, trust, understanding, dependence, commitment, communication, conflict, adaptation, cooperation, and satisfaction. We show the findings of the study in the figure below.

The study uses the Structural Equation Modelling (SEM) method to test the proposed large scale model. The multiple relationships involved in the study and the need to holistically assess the relationships necessitated use of SEM.

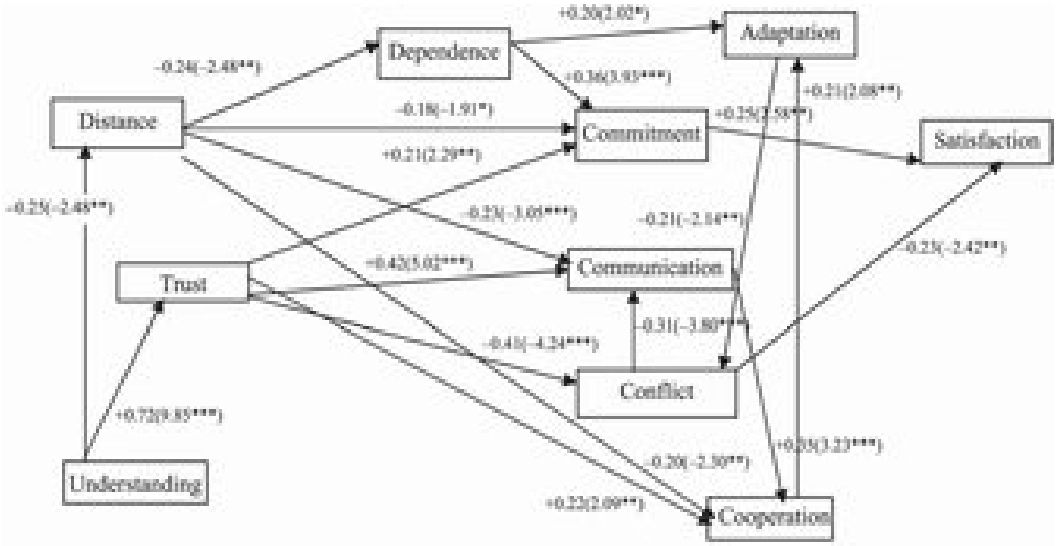


Fig. 3.3 Integrated model of behavioural dimensions (source; Leonidou et al., 2006)

In their findings, Leonidou et al. (2006) argue that to provide a more realistic understanding of the behavioural variables, an integrative approach to examining the behavioural aspects of relationships may be more relevant than a partial one which may conceal some effects and give misleading results.

The study also found out that it is crucial to ensure familiarity, among other things, with the social aspects of the exchange partnersô organisation. Dependence, commitment, communication, and cooperation are some of the mentioned social factors. The study also found out that trust seems to play a central role in relationships and in strengthening commitment. The study findings show that there are several associations among the key constructs that characterise relationships.

A critical analysis of the integrated model of the behavioural dimensions

The integrated model considered ten behavioural constructs. To be able to analyse all these constructs, this study used SEM which requires a sample ranging between 100 and 200 (Hair et al., 2002). In our situation in Uganda, there are limited samples of purchasing collaboration. It is not possible to obtain a sample ranging between 100 and 200. We base on the parsimonious principle of research, that plurality should not be posited without necessity. Further to this, Vargas et al. (2006) advise that we should not admit more causes to phenomena than such are both true and sufficient to explain their appearances. We therefore examine the relevance of each of the factors to our research.

We consider only four behavioural factors, which seem to be common in literature. We note from the literature (Bignoux, 2006; Brennan and Turnbull, 1999; Gambetta, 1988; Liden et al., 1997; Mattsson, 1999; Morgan and Hunt, 1994; Sherman, 1992; Whan and Taewon, 2005) that trust, commitment, dependence, and reciprocity cause more variability in horizontal purchasing collaboration than the other factors, such as culture, structure, internal support, communication, and technology. We consider cooperation, which can also be referred to as collaboration as the dependent variable.

We do not consider the other factors because of the following reasons:

- We do not include distance because according to the model, distance is the degree of unfamiliarity of one party in a business relationship with the characteristics of the other party (Hallen and Sandstrom, 1991). The model also defines distance in terms of social distance, cultural distance, and technological distance (Hallen and Wiedersheim-Paul, 1979). We recognise that in Uganda, horizontal purchasing collaboration is between PDEs that have similar cultural and social setups, and are equally affected by similar technology. We do not anticipate a lot of variability between the PDEs since they exist in the same environment;
- Conflict is a blocking behaviour by one party in a working relationship to deter the other from gaining resources or pursuing an activity for its advancement (Anderson and Narus, 1990). It starts from the operations in a horizontal purchasing collaboration (Etgar, 1979). Examples are disagreements regarding supplier selection, cost sharing, contract management, and supplier evaluation. This makes conflict more of an operational nature than behavioural. Besides, conflicts may grow with time (Knippen and Green, 1999), so its impact may be noticed after some time. We consider PDEs which have just started, which makes time dimension factors not very relevant to our study;
- Adaptation is the degree to which one party in a working relationship makes substantial adjustments in structures, processes or strategies in order to accommodate the objectives, needs, and capabilities of the other party (Doney and Cannon, 1997; Han et al., 1998; Metcalf et al., 1992). Apart from being more of an operational than behavioural nature, we note that in horizontal purchasing collaboration, PDEs use standard processes. All the processes, structures and strategies are largely the same (PPDA Act, 2003) and thus may not cause significant variation in our study variables. Therefore, we do not include adaptation in our study because individual PDEs in the horizontal purchasing collaboration do not have unique structures and processes to adapt to;

- Understanding is the willingness to appreciate and empathise with the situation, conditions, and problems faced by a collaborating partner with regard to issues that have a direct or indirect impact on the smooth operation of the relationship (Hallen and Sandstrom, 1991). We do note include the understanding variable in our study, because the collaborating PDEs in Uganda are in the initial phases and have not yet acquired adequate information about structural, procedural, strategic, and other aspects to understand each other.

In the next sections, we explain the behavioural factors we do use in more detail.

3.8 Behavioural factors and a tentative model

In the following sections, we review literature on the behavioural factors trust, commitment, reciprocity, and dependence. For each factor, we discuss its meaning as per our research, its importance to horizontal purchasing collaboration, and we discuss its situational analysis in Uganda.

Trust

Trust is oneôs belief that the other partner will act in a consistent manner and do what he or she says he or she will do. We acknowledge different scholars who have explained trust using different ways/dimensions. According to Das and Teng (2001b), Klein Woolthuis, (1999) and Nooteboom, (1996), the trust variable can be operationalised in terms of competency (ability by the other entity to carry out tasks as expected) and goodwill (trust in another entityôs loyalty and honesty, with each entity treating other(s) with care and concern). According to Swan and Trawick (1987), trust is operationalised in terms of:

- Dependable/reliable;
- Honest/candid;
- Competent;
- Partner orientation;
- Likeable/friendly.

Swan and Trawick include competency and goodwill in conceptualisation of trust and in addition, bring in other aspects like being oriented toward partner norms. In Appendix F, we show more detailed dimensions of trust according to literature. According to Svensson (2001), these detailed aspects can be reflected in the conceptualisation of Swan et al. (1985) and Swan and Trawick (1987).

All the aspects of Swan and Trawick are important to our research, because they play an important role during the initial phases of trust building (Swan and Trawick, 1987) and most collaborative initiatives in Uganda are in these initial phases. We therefore adopt the conceptualisation of Swan and Trawick (1987). We consider trust as one variable, and to ensure validity concerns, we exhaust all the five dimensions of its conceptualisation as other studies have done (Das and Teng , 2001b; Klein Woolthuis, 1999; and Nooteboom, 1996)

Trust and horizontal purchasing collaboration

As Sherman (1992) put it, the biggest stumbling block to success of strategic alliance formation is the lack of trust. Trust is therefore an important basis for collaboration. This is confirmed by among other things networking theory. According to networking

theory, a large and diverse group of people with some minimal level of trust (Huxham and Vangen, 2004) will be able to come together and need some level of trust to do this. The importance of trust in a collaborative initiative is further emphasised by Pesamaa and Hair (2007). They state that the more mutual trust exists, the less likely the relationship will result in undesirable actions. Finally, we note that trust is related to the assumptions of TCE (Schotanus et al., 2009). Bounded rationality can be reversed through trust, since it enables the parties to take a long term view of the relationship (Ganesan, 1994; Montgomery, 1998). Trust also reduces opportunism, (Chiles and McMackin, 1996), uncertainty (Luhmann, 1995; Monczka et al., 1998), and the need for negotiating, drafting, monitoring, and control of contracts, thus lowering transaction costs (Chiles and McMackin, 1996; Gulbrandsen et al., 2008; Park and Ungson, 1997). Trust is an essential ñglueò that holds relationships together, but it is difficult to develop and maintain.

Importance of trust at various stages of collaboration
The literature shows that the level of trust may not be the same at various stages of collaboration (Kanter, 1994). For example, the formation (sometimes called searching or starting) stage, is a pre relationship stage. At this stage, search trust is needed to search evidence from indirect sources to give potential partners security to carry on.

At sustaining (or management) stage, the behaviour patterns have been institutionalised; there is consistency in dealings and collaboration continuity. The collaborating entities look out for competence trust and goodwill trust (Das and Teng, 2001b, Klein Woolthuis, 1999; Nooteboom, 1996). A collaborating entity would want to perceive an ability of other entities to perform tasks as agreed upon or as expected. Each entity is looking out for having its interests being catered for with care by the collaborating entities. In the management phase, the collaboration structures seem to work out with less suspicion like at the start. Trust may not be a critical success factor in the management phase of a horizontal collaboration (Hoffmann and Schlosser, 2001; Schotanus, 2007), much as trust is greatly required in the early phases of collaborative initiatives to sustain the subsequent stages (Hoffmann and Schlosser, 2001). Based on the sections above, we hypothesize:

H1a: The existence of trust leads to a higher level of collaboration in the early phases of horizontal purchasing collaboratives.

Commitment
Commitment is the belief that the trading partners are willing to devote energy to sustaining the relationship (Dion et al., 1992). Through commitment, partners dedicate resources to sustain and further the goals of the collaboration. Commitment is the willingness of the partners to adapt. It implies that the partners view the relationship as being important enough that it is worth the effort of ensuring that it will endure (Zineldin and Jonsson 2000).

Conceptual literature on commitment continues to evolve towards a three-component model (Gundlach et al., 1995). This has been confirmed by a meta-analytical study (Meyer et al., 2002). Based on this, we adopt measures of the three dimensions of commitment from Gilliland and Bello (2002) and Brown et al., (1995), because these measures have been proved to be more conceptually valid in collaboration studies (Kelly, 2004):

- Instrumental commitment is where an actor is constrained by the costs and inconveniences of leaving the current collaboration (Gilliland and Bello, 2002);
- Normative commitment is based on the partnersô value in the collaboration (Brown et al., 1995);
- Affective commitment relates to commitment by a partner in relation to the identification and involvement with the others (Brown et al., 1995). When the commitment level is high, partners in the collaboration want to continue. This progressively reduces opportunism.

Commitment in horizontal purchasing collaboration is important, because PDEs that come to join the collaboration have to evaluate what to gain and what to invest in the collaboration. Partners in collaboration tend to be rational (Cullen, et al., 2000). This is why instrumental commitment is the most important measure for our study.

Commitment and horizontal purchasing collaboration
Based on TCE (Williamson, 1985), commitment reverses bounded rationality since it orients parties in collaboration to a long term view of the relationship (Ganesan, 1994). This is confirmed by Pesamaa and Hair (2007) who found that successful long-term horizontal purchasing collaboration contains highly committed parties. Commitment makes entities make short term sacrifices (e.g., meet operational costs, sponsor venues for meetings, use their own resources like computers, printers, paper, et cetera to do work for the other entity) for the long term good. Horizontal purchasing collaboration should be built on the foundation of commitment and sometimes partners have to sacrifice something, especially in emergency situations to survive the initial phase (Hoffmann and Schlosser, 2001).

According to Brennan and Turnbull (1999), commitment leads to increased collaboration. We also note that once there is commitment, the partner values the relationship (Brown et al., 1995), wants to identify with the collaboration (Allen and Meyer, 1990; Brown et al., 1995; Porter et al., 1974), and is constrained to leave (Gilliland and Bello, 2002). According to Morgan and Hunt (1994) ó é when commitment and trust ï not just one or the other ï are present, they produce outcomes that promote efficiency, productivity, and effectivenessô.

From the above discussion, it is clear that both trust and commitment are needed, despite which one precedes the other. It is important to consider both of them, while undertaking relationship studies.

Drawing from RBV, the attractiveness of an entity to others is based on its resources and its ability to exploit them. We expect that organised resources, called capabilities (Stalk et al., 1992), lead to higher levels of collaboration. We therefore hypothesize:

H2a: The existence of commitment leads to a higher level of collaboration.

Trust and commitment
According to Brennan and Turnbull (1999), high levels of trust lead to adaptations to accommodate a partner (commitment). In their research paper, Whan and Taewon (2005) state that commitment, which itself is a result of trust, is a key success factor in achieving integration. There must be commitment in any collaboration, and it is trust

that sustains such commitment. Several researchers have recently supported this view that trust leads to commitment. Trust is a key mediator to collaboration and affects commitment (Ylimaz and Hunt, 2001). We also note that while trust refers to feelings about the relationship, commitment represents a manifestation of actions within the relationship (Leonidou, 2006). In Uganda, where collaboration in PDEs is still relatively new, whereas feelings about collaboration may be strong, actions are still lacking.

In our study, we analyse both trust and commitment as predictors of horizontal purchasing collaboration. Therefore in our study, we do not go into details of the debate on which of trust and commitment determines the other. Whereas we take trust to lead to commitment (because collaborative initiatives are new and commitment actions are yet to be more noticed), we acknowledge that commitment can also lead to trust. However, we take this to be at a later stage in the collaboration when initial minimal trust has already led to some commitment (based on Andaleeb, 1996; Morgan and Hunt, 1994). We therefore hypothesize that:

H2c: The existence of trust leads to higher level of commitment.

Reciprocity

Reciprocity is a state relationship where an organisation gives something to another organisation in return for something else. There is mutual action, giving, and taking between the collaborating parties. In an anticipated long-time relationship, there are sequences of actions that may continue indefinitely, never balancing out (Bignoux, 2006).

We conceptualise reciprocity in three dimensions (Sullivan et al., 2003):

- Equivalence, where parties in a collaboration attach the same value to what they get as to what they receive;
- Immediacy, where partners are interested in knowing how soon the return will be for the particular actions carried out now;
- Interest, which is about self interest as compared to the interests of the collaboration.

We note that several scholars other than Sullivan et al. (2003) have contributed to the three dimensions of reciprocity (Liden et al., 1997; Uhl-Bien, 2000), but all their contributions are incorporated in the conceptualisation of Sullivan et al. (2003).

Reciprocity and horizontal purchasing collaboration

From the social exchange theory point of view, reciprocity is important to horizontal purchasing collaboration because it initiates and stabilises social interaction among collaborating entities (Sanders and Schyns, 2006). Equivalence is even more important in the beginning of collaboration than in the long run (Uhl-Bien et al., 2000). For collaborations in the initial stage, immediacy is important because when collaboration has not reached high quality, there is a relatively shorter time span of reciprocation and reciprocation is very important to sustain the collaborative initiative (Sanders and Schyns, 2006). For collaborations in the initial stage, there is relatively more selfishness. The focus is not yet on mutual benefits but on self interest (Liden et al., 1997). Therefore, the dimension of interest should be given attention in newly

established collaborative initiatives, especially those in developing countries and particularly in Uganda.

Through a set of reciprocal expectations, partners perceive a low cost of negotiating and enforcing contracts and other operations, especially if the immediate benefit is not anticipated. For example, a PDE with an expert in evaluation of works and construction bids will agree to offer assistance to another PDE which does not have such an expert, even when such a PDE with experts knows it may not require immediate assistance from the one it is to assist. However, such a PDE knows that whenever it requires assistance from the PDE it has assisted, it will get it. Absence of direct reciprocity can lead to problems such as free riding and opportunistic behaviour (Sanders and Schyns, 2006). Reduced opportunism may be especially important in the early stages of a collaborative, when trust and commitment have not yet reached a high level, and collaborating partners are on the look out to exploit situations that put them to advantages over others, as it is likely to be the case for emerging collaborative initiatives in developing countries like Uganda.

A stronger norm of reciprocity will create a sense of willingness to relate with others to realise long term benefits. This is likely to increase the level of collaboration initiatives. So, we hypothesize:

H3a: The existence of reciprocity leads to a higher level of collaboration.

Dependence

Dependence is the extent to which a partner provides important and critical resources for which there are few alternative sources of supply (Buchanan, 1992; Kale 1986; Heide and John, 1988). It is the reliance on actions of another party to achieve certain goals or gratification (Emerson, 1962). Collaborative relationships can be the result of an organisationôs desire to reduce uncertainty and/or to manage dependence through the establishment of semi-formal or formal associations with other companies (Pfeffer and Salancik, 1978). This is because organisations may not be self sufficient with respect to critical resources.

According to Svensson (2004), the research performed by Hammarkvist et al. (1982) and Mattsson (1999) provide a sound point of departure for the operationalisation process of the dependence construct in collaboration studies. This is because Hammarkvist et al. (1982) and Mattsson (1999) identify a set of appropriate underlying dimensions of the dependence construct. We therefore adopt their measures for our study. We conceptualise dependence according to Hammarkvist et al. (1982) and Mattsson (1999), in terms of:

- Technical dependence, when two organisations technically rely on each other because they have to use compatible equipment;
- Time dependence, when two organisations have a time based need of their activities;
- Knowledge dependence, where knowledge develops between different parties, as a result of interaction;
- Social dependence, where the individuals within the relationship get attracted to each other, and enjoy to work together;
- Economic dependence, the formal dependence, especially in form of written contracts;

- Market dependence, where an organisationôs image and status may positively influence another organisations image and status;
- Information technology dependence, where organisations may invest in a common IT standard.

We consider dependence as one variable, and for validity concerns, we exhaust all its dimensions of conceptualisation as several studies have done (Hammarkvist et al. 1982; and Mattsson, 1999)

Dependence and horizontal purchasing collaboration

From the resource based theory point of view, dependence is important in horizontal purchasing collaboration, because dependence is a phenomenon which contributes to the equilibrium or to the lack of it in a relationship (Svensson, 2002). This equilibrium is more necessary in the initial stage of collaborative initiatives (Uhl-Bien et al., 2000). Dependence applies to horizontal purchasing collaboration because partners cannot be perfectly competent in all or most activities. They need each other (Nollet and Beaulieu, 2003; Polychronakis and Syntetos, 2007), which requires dependence on each other.

Dependence can apply to horizontal purchasing collaboration, where the partners are perceived to have equal powers, because of specialisation, partners cannot be perfectly competent in the various activities. They still need assistance for example in some technical aspects. Partners also need each other to bundle purchasing volumes (Ball and Pye, 2000; Hendrick, 1997; Johnson, 1999; Nollet and Beaulieu, 2003, 2005; Polychronakis and Syntetos, 2007; Tella and Virolainen, 2005). This makes the partners have better quality purchased products and/or services and enjoy financial gains, through reduced prices, et cetera (Schotanus, 2007).

Drawing from RBV, we argue that collaborations are becoming more important, because partners realise that their success is dependent on capabilities and resources of others (Carr et al., 2008). According to RBV, organisations take actions to secure the resources on which they are dependent (Sambharya and Banerji, 2006) which may lead to higher levels of collaboration. We therefore hypothesize:

H4a: The existence of dependence leads to a high level of collaboration.

Dependence and commitment

If an entity seeks to have scarce/unavailable resources from others, it will accept to make short term sacrifices, meet costs or restrictions (Leonidou et al., 2006) by other collaborating entities. It will adjust its structures, processes, and policies (Leonidou et al., 2006) to adapt to those of collaborating entities. In Ugandan PDEs, some resources like skilled manpower and equipment cannot easily be found in other PDEs or any other alternative sources. For example, PDEs can only get works technical personnel in one PDE. PDEs, in an effort to depend on such a works related PDE, will likely develop and demonstrate commitment (Leonidou et al., 2006) to collaboration initiatives with such a PDE. We therefore hypothesize:

H4c: The existence of dependence leads to a higher level of commitment.

Tentative model
From the discussion above, we draw a tentative model to show our current theoretical model in the figure below.

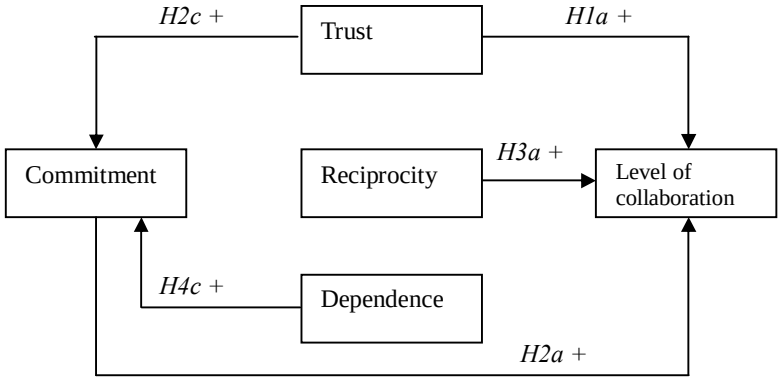


Fig. 3.4 Tentative conceptual model

3.9 Conclusion

In this chapter, we aimed at, among other things, reviewing some related theories to collaboration. We note that there is an extensive amount of literature about collaboration, but a solid theory of inter-organisational relationships is yet to emerge. We discussed the theories that are useful in explaining horizontal purchasing collaboration.

We also note that there is a need to give more attention to horizontal purchasing collaboration, because research on collaborative purchasing is still in its infancy (Eßig, 2000). Compared to vertical collaboration, horizontal collaboration has not been a major research area until now (Eßig, 2000; Ellram, 1991; Laing and Cotton, 1997; Schotanus, 2007; Tella and Virolainen, 2005).

There is further need to refocus research efforts from the hard side of collaboration management like financial and operational dimensions to the soft side of collaboration management which is behavioural. This is because we note that though social factors (trust, commitment, reciprocity, and dependence) are important for collaboration, they may be low in Uganda. In Uganda, the few researches which have been done have simply been about general collaboration issues. This study is specifically focused on behavioural aspects of horizontal purchasing collaboration in a developing country.

Chapter 4 – Exploratory studies on current horizontal purchasing collaboration in Uganda

4.1 Introduction

Through our literature survey, we know to the best of our knowledge that though there are publications on horizontal purchasing collaboration, they are not specific to the developing country context.

In this chapter, we present work of two exploratory studies, which we carried out to better understand the current level of horizontal purchasing collaboration in Uganda, in order to lay a foundation for subsequent work. We develop hypotheses which are used in the subsequent chapters.

This approach is consistent with Van Aken (1994), who emphasizes that for research to meet both the rigour and relevance tests (Andriessen, 2004; 2005), it is important to know ñ*How do organisations work in practice?"* before embarking on ñ*How should organisations work?"*
We include Figure 4.1 to show the position of Chapter 4 in the outline.

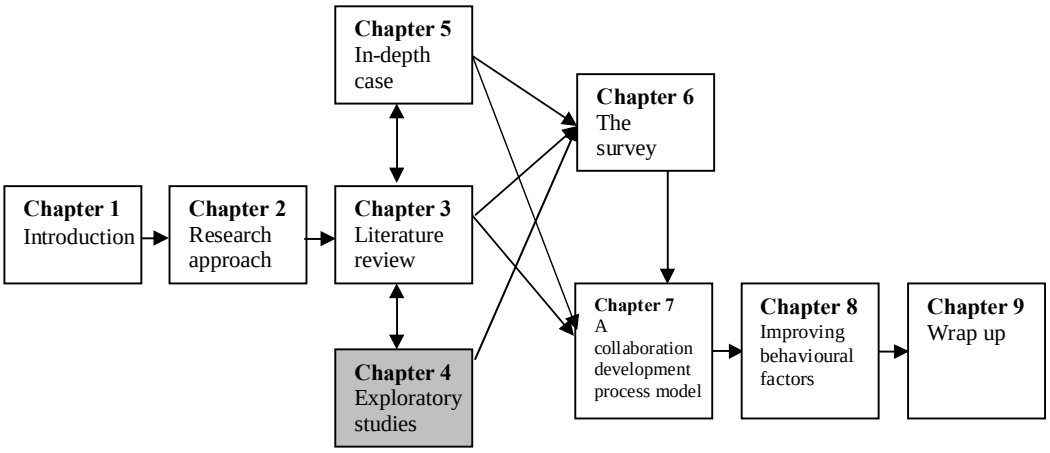


Fig. 4.1 Research outline

4.2 Objective

Our main research objective of this chapter, which is in line with our first major research goal of understanding the behavioural aspects of horizontal purchasing collaboration, is to know the state of horizontal purchasing collaboration in PDEôs in Uganda. In this chapter, we use two exploratory studies to derive insights that enable hypotheses development (Chapter 6).

Exploratory study 1 is about understanding the general status of horizontal purchasing collaboration in Uganda. It seeks to know the extent to which collaboration issues exist, the operations of collaboration and the items involved in collaboration.

Exploratory study 2 supplements the first one, by further understanding the factors for initialising horizontal purchasing collaboration, given that developing countries have had several relationship failures (Turyatunga, 2008), which could be attributed to lack of awareness of developing world contextual factors for starting collaborative relationships. The figure below demonstrates how we achieve our first goal.

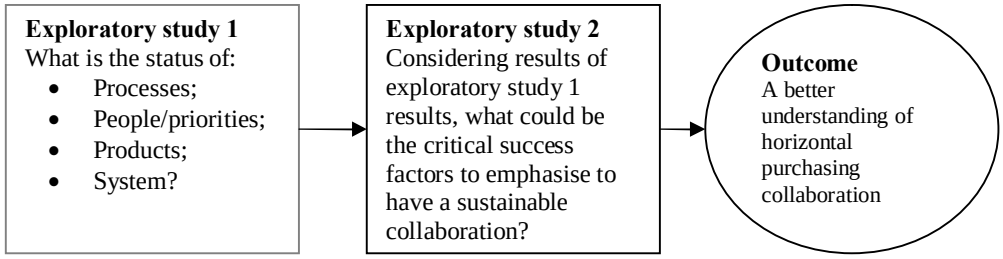


Fig. 4.2 How we aim to achieve our first goal

4.3 Exploratory study 1

Since our goal is to understand the state of collaborative purchasing in Uganda, we posed general research questions which aimed at knowing whether there is collaboration, how it is done, in which activities and its forms. We were guided by the following specific research questions to find out how PDEs carry out horizontal purchasing collaboration. Because there are few publications or secondary data about purchasing in Uganda, and specifically on horizontal purchasing collaboration in Uganda, we use the exploratory study to lay a foundation for the second phase of our study and several other studies in this area. Previous studies (e.g. Cowles et al., 2002) encourage practitioners and academicians to approach the development of knowledge and understanding in such circumstances in a mode of ñdiscoveryò by using exploratory studies. We used the following guiding questions:

- To what extent is there collaboration in various government ministries/universities in Uganda?
- To what extent is there horizontal purchasing collaboration in Ugandan ministries/public universities?
- What priority is attached to purchasing collaboration in ministries/public universities?
- To what extent is there interest by ministries/public universities to collaborate?
- What are the various activities/processes of purchasing collaboration in Uganda ministries?
- What commodities/services/works are suitable for collaboration in Uganda?
- What commodities/services/works are unsuitable for collaboration in Uganda?
- Whom do you collaborate with?
- What has been the duration of collaboration?
- What forms of horizontal purchasing collaboration exist in Uganda?
- To what extent is horizontal purchasing collaboration appreciated in Uganda PDEôs?

- What is the future of horizontal purchasing collaboration in Uganda?

Method

This section explains the methodological choices made. We include population and sample of the study, data collection instrument, and the respondents considered**.**

Population and sample

The population of PDEs in central government at the time of study is shown in Table 4.1 below.

Table 4.1 Population of study

PDE	Total
Commission	14
Hospital	12
Ministry	26
Parastatal	64

Since the aim was to understand the behavioural aspects in horizontal purchasing collaboration, we carried out a two case study design, by considering ministries and parastatals (universities). This choice considered the largest categories. This enhances comparison and validity of findings (Yin, 2003). The cross sectional design was chosen, to give us snapshot insights on horizontal purchasing collaboration in Uganda.

We considered 21 ministries but received data from 16 of them. We had to leave out five ministries because they do not easily release information. For public universities, we collected data from two; Makerere University Business School (MUBS) and Kyambogo University (KYU). The two universities considered are undertaking a joint Netherlands Programme for Institutional Strengthening Post Secondary Education and Training Capacity (NPT) procurement project together with the Northern Consortium counterparts, University of Twente and Maastricht School of Management in The Netherlands. We found the two universities suitable because they are both in the same location and there is an already established structure for a purchasing collaborative system.

Data collection

We used a self administered questionnaire to the sampled PDEs. We used such a questionnaire because it would allow face to face interaction and the researcher had the chance to discuss with the respondents some of the unclear questions, to further improve our understanding of horizontal purchasing collaboration in Uganda. We made appointments with the respondents so that the questionnaire is filled instantly and with supplementary explanations from the researcher. This also improved our response rate to 76%.

In addition to the questionnaire, we carried out interviews with some staff to obtain a deeper understanding of some of the issues. Using more than one method of data collection can increase the reliability of the results (Den Hertog and Van Sluijs, 1995; Webster, 1991). We selected five interviewees, each from one of the bigger (in terms of spend) PDEs, and one interviewee from the universities. These were at the topmost rank of principal procurement officer in Uganda. Each interview took about one hour.

Response

We considered all the staff in the respective PDEs who are directly responsible for procurement activities. These were employees in the Procurement and Disposal Units (PDUs), members of contract committees, and accounting officers. The accounting officers are members of top management while members of contract committees and PDU employees are middle level officers in the PDEs. All respondents considered had worked with PDEs for over a year, with 80% of them having started before the PPDA Act 2003 legislation. This means they had enough knowledge to comment on the issues under consideration.

In total, we conducted 18 self administered questionnaires, one from each of the considered entities (16 ministries and two universities). Since the unit of analysis was an entity, one well filled questionnaire by a competent representative of the entity (either procurement officer or accounting officer or a member of the contracts committee) for each entity was considered sufficient. After collecting the data, we summarized it, edited it and reported the findings.

Findings and discussion

In this section, we present, interpret and discuss the findings. We consider each respective research question.

The extent of collaboration in various government departments in Uganda

All the responses from the ministries and universities indicated that to a large extent, there is collaboration between the organisations. This means in general terms that there is horizontal collaboration between the organisations. This collaboration is mainly in terms of:

- Preparation of policy and regulation;
- Sectoral planning and budgeting;
- Running joint programmes;
- Service support like security;
- Transport (ministries helped ministry of Justice and Constitutional Affairs during elections);
- Office space;
- Making strategic plans;
- Joint projects like the Commonwealth Heads of Government and Ministers (CHOGM) collaboration committees in concerned government departments;
- Multi sectoral coordination and collaboration national body in disaster risk reduction;
- HIV/AIDS control multi sectoral approach.

This is an indication that collaboration is not entirely new; it already exists. Though collaboration in various activities especially those that do not involve monetary transactions may be easier to start and sustain compared to horizontal purchasing collaboration, we believe that it can be enhanced in the area of purchasing too, since the practice is not entirely new. Successes of the existing collaborative initiatives can be used as a basis to justify further collaboration in specific functions like purchasing.

For entities which indicated that they had collaboration dealings with others, we asked the respondents why they entered the mentioned collaborative relationships, especially when they were not aware of the benefits to realise. They told us that it was

mainly out of need to expedite the deals, because of urgency and deadlines. Asked whether they realised this urgent need, they said they did. The quotation from one of the respondents seems to capture this argument:

> *"We decided to collaborate with the other entities because we had to conclude the purchase within a month because of urgency. We went into joint meetings for most of the time during the first week. At the end of the deal, we did not only achieve our target within the set time, but also developed more positive feelings towards our counterparts than ever before. We eventually chose to expedite other deals that were not originally meant to be done together, and since then, we have always welcomed working together".*

We therefore conclude similar to Schotanus (2007) but contrary to several other sources, which list the initial conditions for collaborative purchasing (among others Johnson 1999; Laing and Cotton, 1997; Polychronakis and Syntetos, 2007); urgency of the deal should be one of the critical factors and/or benefits for horizontal purchasing collaboration. This is more relevant in developing countries like Uganda, where planning is rarely done or if done, there is less emphasis to implementation (Turyatunga, 2008). This causes urgent situations that are a motivator for horizontal purchasing collaboration.

Horizontal purchasing collaboration in Uganda PDEs

Of the considered Ministry PDEs, about 69% agreed that there is horizontal purchasing collaboration. Lack of horizontal purchasing collaboration was indicated by 31%. Both University PDEs considered indicated there is horizontal purchasing collaboration between them. We noted some insights in the activities where horizontal purchasing collaboration takes place. We summarize them below.

In the ministries, where there is no deliberate effort to collaborate, the following were some of the activities where collaboration is noted:

- Capacity building like training procurement cadres and conferences;
- Using similar shortlists of prequalified suppliers, especially if one ministry can not prequalify or needs a product urgently or does not have a qualifying supplier in that particular supply;
- Services/works providers suitability information;
- Price comparisons;
- Other operating and challenging procurement aspects like procurement of services and equipment for the newly discovered oil reserves.

In universities considered, there are deliberate arrangements to collaborate, under the NPT programme. We noted the following areas of collaboration:

- Joint contracts committee;
- Joint tendering;
- Using shortlists of another university in case no supplier is short listed;
- Drawing joint specifications;
- Bid evaluation;
- Supplier selection;
- Award of contracts;
- Sharing experience on procurement work.

From above, we note that for Ministry PDEs (where no deliberate effort to collaborate have been undertaken) collaboration activities are in the initial stage of the

procurement cycle. We mention activities of the procurement cycle in Table 4.3. There is less collaboration in the final stages of the procurement cycle. While commenting on why the PDEs are not enthusiastic in continuing with collaboration in the final phases of the procurement cycle, one respondent said;

> *"We have not yet trusted others on contractual issues which involve secrets about why some suppliers are not selected. We fear they may reveal some important information".*

We further noted that PDEs have a duty to protect secrets especially costing, bid prices; methodology of handling of bided assignment partly because of competition between suppliers. However, because of poor business ethics in Uganda, this is not done. According to the Government of Uganda Public Service Ethics Report (2002), public servants in Uganda lack values and practices. They lack professional values, and because they have lived with what is wrong for so long, professional misconduct has become normal. As processes in the existing collaborations change from the initial processes of the Ugandan procurement cycle where information is general and can be shared to final processes where information is specific and can affect competitiveness of suppliers, PDEs perceive risk in collaboration.

On the other hand, for University PDEs (with a deliberate effort to collaborate), horizontal purchasing collaboration is in all stages of the procurement cycle. This collaboration is a result of the NPT project, with terms among other things, requiring a joint purchasing system of the NPT related items and a joint purchasing structure in place. We noted that even in the University PDEs, for purchases outside the NPT project, the collaboration reverts back to be like the ministry PDEs, only that there is more information shared and networks from the NPT collaboration systems are used. This existing momentum keeps the collaboration aspects on.

Though ministry PDEs do not collaborate in all activities, we note that collaboration is in the initial stage of the procurement cycle, especially the needs specification stage, which makes participating PDEs realize benefits of collaboration as most of the decisions that leverage and optimize the benefits of purchasing are at this stage. The rest of processes done individually do not leverage benefits optimally to the PDEs.

We conclude that PDEs may not need deliberate efforts and structures in place to collaborate. The voluntary nature of such entities can still make them gain benefits of collaboration. This is in agreement with the literature (Ehin, 2000; Anheier and Kendall, 2000) which suggests that trust flourishes most under voluntary collaboration.

Attached priority to purchasing collaboration in ministries/public universities
Of the ministry PDEs that responded, 25% said the priority given is less (medium) than what is given to purchasing individually, 38% that it is not given priority, 31% that it is minimal (low) and 6% said it has high priority.

The 6% high priority score is low compared to the other scores. This could be attributed to the fact that the procurement officers in the ministries are not in decision making positions. We noted that the entire ministry PDEs that scored ñno priorityò had low cadre procurement staff, at the rank of procurement assistant and procurement officer, who do not participate in making strategic decisions. The middle (sometimes low) level procurement related officers in the organisational hierarchy do

not attend top strategic meetings that prioritize activities in their respective ministries. So it may be more difficult to give priority to procurement activities. The middle level procurement officers are not in position to make strategic decisions that would encourage reciprocity. Though they may appreciate the contribution of other PDEs, they may not be able to give back to them.

We, however, noted that those ministry PDEs which said priority for collaboration is high, are not among the big five PDES. We attach this insight to the ñself sustainingò nature of these PDEs in terms of financial, human, and technical resources. Another explanation could be that the big PDEs may not have a high need to obtain more economies of scale and other related benefits of collaboration like the relatively smaller PDEs.

Both university PDEs said the collaboration is given high priority. They also said that this is because of the required conditions on the NPT project. However, because of the presence of a structure of collaboration between these universities, there is collaboration in even other commodities and services of individual universities not connected to the NPT project. Although it seemed obvious that PDEs where structures and guidelines about horizontal purchasing collaboration have been put in place would agree that they have a high priority, we noted that once such structures and guidelines are put in place, like the case of NPT, PDEs will eventually realize the need to collaborate even in other areas not required by the working guidelines. We argue that structures may not necessarily be the main cause for collaboration, but may increase the speed at which collaboration is adopted, especially in developing countries where organisational structural set ups are not always emphasised.

We conclude that having structures and guidelines on how horizontal purchasing collaboration should work can be ñan eye openerò to the benefits of collaboration. This is in agreement with social construction theory, which suggests that the domain of knowledge you have, determines the perception (and therefore priority) you attach to an activity.

Extent of interest by ministries/public universities to collaborate

Fourteen out of sixteen ministries (87.5%) expressed interest in purchasing collaboration. Even those that do not have a clear system of collaboration acknowledge the need to collaborate. The reasons given for a need to collaborate are:

- Reducing financial costs;
- Better prices because of bargaining power;
- Sharing information;
- Avoiding repeated tasks which are costly to optimize because of the lack of synergy;
- Getting access to skilled personnel which are still a problem in Uganda;
- Improving service delivery;
- Standardizing purchasing activities;
- Preventing that ministries purchase similar items, from similar sources, at similar times but at very different prices.

Both University PDEs expressed interest to further collaborate, in areas that are not covered by the NPT project. Apart from a more specific reason (to implement NPT guidelines), university PDEs gave similar reasons for collaboration as the Ministry

PDEs. We therefore argue that the general reasons and perceived benefits of horizontal purchasing collaboration are similar, irrespective of the nature and type of organisation.

Activities/processes of purchasing collaboration in Ugandan PDEs
The PDEs which indicated practicing of horizontal purchasing collaboration said it is in the following activities:

- Prequalification;
- Drawing specifications together;
- Scope of works;
- Terms of reference;
- Contract management;
- Appraisal;
- Preparation of standard bid documents;
- Using the same supplier list (which was jointly compiled by the PPDA);
- Initiating framework contracts;
- Evaluation of bids.

We note that these activities are mainly in the initial stage of the purchasing process. We also note that horizontal purchasing collaboration exists where there is technical competence required. For example, specifications for works and heavy machinery may not be easily originated from the Ministry of Education and Sports. Equally argued, not any ministry can formulate a framework contract like the Ministry of Justice and Constitutional Affairs. Drawing from the social exchange theory and the resource based view; we conclude that dependencies on competences of others play a role in sustaining horizontal purchasing collaboration.

The activities in the procurement cycle where horizontal purchasing collaboration does not exist include confirmation of funds, approval of procurement method, approval of bid documents, award of contract and signing and communicating the contract. We note that these are activities that demand accountability from individual PDEs, since each operates a separate budget. We therefore conclude that due to accountability requirements not all procurement activities are carried out in horizontal purchasing collaboration initiatives.

Commodities/services deemed suitable or unsuitable for collaboration in Uganda
We present commodities/services deemed suitable or unsuitable for collaboration in Table 4.2

Table 4.2 commodities/services suitable or unsuitable for horizontal purchasing collaboration

Suitable for horizontal purchasing collaboration	**Unsuitable for horizontal purchasing collaboration**
Common user items like stationery;	Items specific to various ministries;
Fuel;	Classified products like fire arms and other weapons;
Office equipment (like computers), communication equipment, and furniture;	Non common user items that are used once in a while;
Strategic goods that involve a lot of spend but are common to all PDEs;	Customized services;
Capital buying; which are similar e.g. heavy machinery and motor vehicles;	Heterogeneous services;
	Services that do not cut across ministries like

Internet services like the joint academic and professional websites (for university PDEs); Cleaning services; Security; Repair services; Insurance services.	expertise on treatment of Ebola disease; Specialized computer software like finance and academic records software; Specific research (university PDEs).

Reasons for commodities/services suitability for horizontal purchasing collaboration can be derived:

- They are in most cases similar and some cases exactly the same. For example, all PDEs use the same filing cabinets;
- They can all be sourced from the same supplier(s).

It is interesting to note that in Uganda, the commodities/services bought under collaborative arrangements do not only consist of non strategic, MRO, and standard capital equipment as Hendrick (1997) found out. The items identified above range from routine, to bottleneck, leverage, and strategic (Kraljic, 1983). We probed further from the respondent from the Ministry of Energy and Mineral Resources why the entity would buy a unique oil drilling equipment in collaboration with the Ministry of Transport and Works. The respondent told us as in the quotation below:

> *"We had collaborated with them on several other purchasing deals and had done well. We thought we still needed their input since they were themselves buying an item they were not used to. We do not regret having worked with them".*

Therefore we derive that where entities have had successful previous dealings with each other, they are likely to collaborate in purchasing deals, even when it is not very similar to all the participating entities.

From the responses above, we derive reasons for unsuitability for horizontal purchasing collaboration of commodities/services (we give more details on this in Chapter 5):

- National security reasons, like the commodities/services in the security related PDEs;
- Specificity and uniqueness makes them unsuitable, because some PDEs may not require such, in the next foreseeable future. For example, the Ministry of Local Government may never require military consultancy services;
- Some of them do not have chances of repeated use, so there is no long term justification to purchase together; benefits got are one off, which may not be perceived as worth the effort involved.

We recommend nationwide efforts to standardise suitable products/works/services, so that they can be easily bought together. This is when economies of scale can be achieved. Buying in bulk makes negotiation with suppliers strong. Even where general products would be the same, over specification by various PDEs makes them different. For example Ministry of Education and Sports uses different type of ink cartridge compared to Ministry of Public Service, which makes collaboration more difficult. However, standardisation requires various meetings by the PDEs to appreciate the need to have standardised purchases, especially those different PDEs

are not used to. Success stories for those that use most common products can be brought up to bring convergence with those that hold on unique purchases to a common purchase.

From the above analysis, we conclude that careful analysis of the commodities/services involved in PDEs can influence the formation and sustainability of horizontal purchasing collaboration. Once collaboration has worked well, it will also lead to further standardisation. So standardisation may be both a prerequisite for collaboration an outcome of collaboration.

Collaboration partners
All ministry PDEs decide who to collaborate with in as far as there is a specific need to collaborate. The following quotation from the procurement officer Ministry of Education and Sports elaborates on the urgency issue;

> *"Most procurements that come to our office are already time bad; for example, the information and communication technology course curriculum and associated packages requisitions were needed in less than two months, because the starting of the term for universal secondary school education programme was near, so we had to immediately contact the Ministry of Information and Communication Technology for technical input, to execute the procurement and meet deadlines. There was no time to first consider whether the Ministry of Information and Communication Technology was the correct long-time partner for us, we left that for the future, though they turned out to be good."*

This is usually because of the specific skills and talents of personnel. Whereas it is inevitable for some PDEs like the Ministry of Energy and Minerals to collaborate with the Ministry of Lands and Environment and the Ministry of Works (because they are the line ministries and experts in environmental and mining affairs) in the exploration of oil or all PDEs referring to the Ministry of Justice and Constitutional Affairs for contracting processes. Others simply solicit for expertise from other PDEs without any followed guidelines. There is no clear model of how a certain PDE comes to collaborate with one PDE, and not the other. We also note that horizontal purchasing collaboration can take place between competing companies and between unrelated companies (Cruijssen, 2006).

Whereas there is no clear model of how a certain ministry comes to collaborate with another ministry, the universities studied have a structure and mechanism of collaboration. Each entity has representatives on the procurement structures. There are combined committees of: a contracts committee, councils, evaluation committees, accounting officers from each university are consulted, and procurement and disposal units. All universities consider respective user departments. Chairing of meetings is rotational, with each university taking a lead role at different alternating times.

We summarise that starting collaboration is mainly motivated by a need to have a task carried out. We also note that once there is no proper procurement planning and urgency sets in, then the initial processes of evaluation and analysis of who to collaborate with may not be important. Finally, our study shows that in the public sector, where gains and profits especially in monitory terms are not key, urgency or the situational factors (especially searching for expertise) at the time when the idea of

collaboration is introduced can determine whether an entity should join a collaborative initiative or not.

Duration of collaboration
We note that before the introduction of the PPDA procurement reforms in 2003, there was centralisation of purchasing for all supplies/services/works above 1,000,000 Ushs (about 417 Euros). This means all government departments would refer purchasing decisions to the Central Tender Board (CTB). Therefore, horizontal purchasing collaboration as we define it was not an issue. We note that the ministry PDEs indicate starting the horizontal purchasing collaboration in 2003, when the PPDA act came into force.

Likewise, both university PDEs indicated starting the collaboration in 2004, at the time the NPT project started. Despite starting a year later than the ministry PDEs, the university PDEs have collaborated more. Perhaps this could be explained by the compelling need the university PDEs had to expedite time constrained NPT project activities.

We conclude that though trust and commitment develop with time, the initial level of trust and commitment among entities coming to collaborate should be enough to start off a collaborative arrangement, especially where there is a compelling need that motivates the intending collaborating entities.

Forms of horizontal purchasing collaboration in Uganda
Forms of collaboration can enable and constrain, affect agenda setting, power dimensions, resource allocations, and outcomes (Huxham and Vangen, 2000). It is therefore important for horizontal purchasing collaboration initiatives in the developing countries and specifically Uganda to have an appropriate collaboration structure/form for success. In our study, we aimed at answering how collaboration is done. There are not yet any fully developed structures of operation. However, the PDE with a need to collaborate contacts the one(s) it feels it should work with. It is mainly out of the contingent conditions, which states that the conditions prevailing at a point in time, determine the next course of action (Batonda and Perry, 2003).

Information is shared at the same level, but from the technical and more knowledgeable ministry/university, there is no influence by one over the other, since all such ministries/university are (is) relatively at the same level, in terms of authority, needs and resources. There is no lead entity with leadership legitimacy, or a steering committee with representatives from collaborating entities to make decisions on the general direction of collaboration.

According to Bakker et al., (2008), only a few papers in purchasing literature clearly mention forms of collaborative purchasing (Aylesworth, 2003; Nollet and Beaulieu, 2003; Schotanus and Telgen, 2007). Schotanus and Telgen (2007) published a highway matrix typology of organisational forms of collaborative purchasing. We analyse the Ugandan horizontal purchasing collaboration with a view to allocating the various forms on this typology.

According to Schotanus and Telgen, one of the dimensions that distinguish the forms of purchasing is related to coordination; coordination by hierarchy and coordination

by market (Arnold, 1996b; Galaskiewicz, 1985; Jones and Hill, 1988; Thompson et al., 1991).

We note that coordination is mainly by hierarchy since all the PDEs are at the same position and with similar mandate. There is no noticeable and official control by any of them. According to the dimension of ñnumber of different group activitiesò in Uganda, it is medium. Some activities in the PPDA procurement cycle (see Table 4.3) are carried out jointly.

Table 4.3 The Ugandan procurement cycle (PPDA cycle)

Activities of the Ugandan procurement cycle	Existence of purchasing collaboration
Requisition	No
Confirmation of funds	No
Approval of procurement methods	No
Prepare bid documents	Yes
Approve bid documents	No
Invitation for bids	Yes
Opening of bids	Yes
Evaluation of bids	Yes
Approve evaluation reports	No
Award contracts	No
Sign and communicate contracts	No
Manage/monitor contracts	Yes
Evaluate the procurement	Yes

We found out that about six out of thirteen activities are done jointly. Note that collaboration is not practiced for all tenders in the PDEs. For example, Ministry of Education and Sports collaborated with Ministry of Works and Transport on 20% of the purchasing deals, because they were connected to building. This percentage could reduce in future when Ministry of Education and Sports has stopped its current running universal primary education building project, because the need for technical works team will have reduced. PDEs do not have hard rules for the collaboration operations; there are no official meeting schedules and structures.

Aylesworth (2003), based on empirical observation, found five types of collaborative purchasing:

- Local networks: consisting of few organisations within a geographical proximity, informally joined together, and can piggy back on each other;
- Voluntary cooperatives: ranging from informal to highly structured arrangements, in which work is shared among members who become lead agents for the particular assigned tasks;
- Regional purchasing agency: with a central body, but limited control for members;
- Member owned service bureau: a separate entity, with a board of representatives from member organisations;

- For profit enterprises: enterprises which sell their influence and expertise by purchasing goods based on aggregate demand plus a profit margin, or charging commission for its services.

Among the five forms discussed above, only the first two (local network and voluntary cooperatives) can be noticed in Uganda.

Nollet and Beaulieu (2003) link the different structures to different stages of development. The set up (at birth phase) is voluntarily done by members who perceive benefits out of collaboration, there are no separate resources to run the collaboration, and management of contracts is divided among the members. As the purchasing collaboration advances into growth, maturity and concentration phases, the structures become more institutionalised, rules put in place, and multidisciplinary teams get devoted to the collaboration. We note that in Uganda, horizontal purchasing collaboration is still emerging (Mudambi et. al., 2004) and match with the birth phase.

We conclude that horizontal purchasing collaboration initiatives in Uganda do not have a deliberate structure to follow. This may cause low outcomes from collaboration because collaboration (whether vertical or horizontal) requires systematic analysis and configuration, which would support agile implementation of procurement plans, and continuous time oriented designs (Hoffmann and Schlosser, 2001).

Extent of appreciation of horizontal purchasing collaboration in Ugandan PDEs
Out of the ministry PDEs, 38% said purchasing collaboration is not appreciated (i.e. members do not freely welcome it), while 62% said it is appreciated. The 38% score on non appreciation matches with the 38% score on the PDEs which indicated they have no priority for horizontal purchasing collaboration. Those who said it is not appreciated gave the following reasons:

- That they were not yet sensitised about it. One respondent said he hears about collaboration in seminars and no efforts have been taken to emphasize it and how it should work;
- Most ministries still do not fully respect the profession of procurement;
- There is selfishness by individual staff in some of the ministries at the expense of national goals;
- It is not known;
- Ownership tendencies by individual ministries;
- Peoplesô minds are still on decentralisation;
- There is no trust and commitment;
- Bad experiences with previous relationships.

The following quotation from one of our respondents seems to explain this point clearly:

> *"I do not trust the other ministries, especially one ministry. We have bad relations already".*

We note that sensitisation is important for horizontal purchasing collaboration to be appreciated. This may be important especially in Uganda where officers in the PDEs

may not have sufficient knowledge and experience on collaboration. This is worsened by lack of published literature on horizontal purchasing collaboration in Uganda.

Since we had concluded that one possible reason why there is no priority given to horizontal purchasing collaboration is because procurement related staff are not yet in top levels of the management hierarchy in the PDEs, we argue that once there is more qualified and experienced staff in procurement, and therefore in top levels of the hierarchy, ñable to sit in the boardroomsò and have a ñhelicopter viewò and direction of the whole PDE, horizontal purchasing collaboration may have a higher priority and be more appreciated. Absence of hierarchical authority in collaborative projects being common was also noted by Williams (2008). Dissemination of successes on horizontal purchasing collaboration to other entities that have not yet appreciated it may improve the situation. We further note that absence of published literature on horizontal purchasing collaboration in developing countries may be mainly because of lack of proper dissemination of experiences of the already existing collaborative initiatives.

Both university PDEs gave the following reasons for appreciating horizontal purchasing collaboration:

- Increasing more bargaining power and obtaining savings, like the textbooks and computers that have been internationally and relatively cheaply purchased;
- More purchasing knowledge;
- More supplier information.

We note that these universities have had structures and time to get exposed to the benefits of horizontal purchasing collaboration. Their experiences are fresh in their minds. Most of the ministries which said collaboration is appreciated are the big ones. We further asked the smaller PDEs why they did not appreciate collaboration, given the potential benefits involved. They said they have not yet been convinced of the potential benefits. A respondent from the Law Reform Commission, one of the smallest PDEs in terms of budget, said that they buy in smaller quantities and these quantities are enough for them, so they do not value the potential benefit of reduced costs of operation. Also the technical ministries said it is appreciated. These have had more exposure to collaborative purchasing than the rest. The technical/service ministries for example are meant to be informed of what happens in all the other ministries, which makes them, collaborate with others in their day to day activities. This may be the reason why they tend to evaluate horizontal purchasing collaboration more positively than the other ministries.

We conclude from this analysis that more exposure opportunities can encourage horizontal purchasing collaboration. From our research, we suggest that in addition to the existing critical factors of horizontal purchasing collaboration (among others Nollet and Beaulieu, 2005); exposure should be recognised by scholars. This is in line with the findings of Schotanus (2007) who also found that promoting successes and quick wins is an important perceived success factor.

The future of horizontal purchasing collaboration in Uganda

Eighty seven percent of the ministry PDEs and both university PDEs said the future of horizontal collaborative purchasing in Uganda is bright. To appreciate responses to

this research question, we include Table 4.4 to show the most common verbatim statements from respondents and whether they are positive and or negative.

Table 4.4 Statements on future of collaboration

Statement	Positive	Negative
If government comes in to put an enabling law, purchasing collaboration will work	ã	
There is nothing to loose, because sharing information in public bodies is not wrong	ã	
The future is bright, but more sensitisation by the PPDA is required.	ã	
I do not think purchasing collaboration will be good for us, because we can manage on our own.		ã
It has worked well for us in the Justice law and order sector	ã	
I do not trust the other ministries, we have bad relations already.		ã
It is too early to conclude, lets wait and see.	ã	ã
We can not avoid it because we can not do without the experts from other entities, until when we develop capacity ourselves	ã	
The process should be free from politics, let it be brought by professionals.	ã	
I do not think collaboration would answer our individual wishes, we can purchase separately		ã
This is a policy of the developed countries, we can not share the budget		ã
It has been practiced by the entities through sharing information about suppliers on the PPDA website, it can be strengthened	ã	
In our opinion, there is a great future for horizontal collaborative purchasing because all entities get finances at the same time and needs arise at the same time, so buying at the same time is viable	ã	
We have been wasting a lot of resources buying similar day to day items like others, this strategy is long overdue	ã	
I imagine it would rather be applied in private enterprises where there is a threat of competition, in government; we do not mainly aim at saving money.		ã
If research is well done and finds that collaborative purchasing is good, then it will be supported	ã	
I believe it is a good idea, though because of selfishness, it may fail. We should encourage it.	ã	

Most of the respondents believe, based on experiences and perceptions, that horizontal purchasing collaboration will work and has a future (71 % of the respondents). However, some respondents are negative, especially those that hint on selfishness and bad previous experiences with the entities they have collaborated with in the past. One respondent is not sure that his entity would work well with another entity. On further discussion with the respondent, he said their orientations are different.

We therefore conclude that past experiences can determine the willingness of entities to collaborate with others they have had such experiences with. However, the general analysis shows that there is a promising future in horizontal purchasing collaboration.

4.4 Exploratory study 2

As in exploratory study 1, we carried out exploratory study 2 in line with our first major research goal of understanding the behavioural aspects of horizontal purchasing

collaboration. We specifically set out to understand the initial factors for horizontal purchasing collaboration in Uganda. Understanding the critical factors further enlightens us on the status of horizontal purchasing collaboration in Uganda.

Whereas we largely use qualitative design to understand general issues on the status of horizontal purchasing collaboration in Exploratory study 1, we use a quantitative design to gain a deeper understanding of critical factors that lead to success of collaborative initiatives. This is important for developing countries that are largely starting up collaborative initiatives.

Motivation for the study

Our motivation for this exploratory study was mainly from the fact that horizontal purchasing collaborative initiatives being new in Uganda, and further basing on the fact that no literature specific to Uganda exists, there was need to understand the initial factors for horizontal purchasing collaboration. Determining success factors is an established method of organisational analysis. Essential elements that need to be addressed for PDEs to collaborate should be known and administrators need to keep an eye on them (Koutsikouri et al., 2008). As Koutsikouri et al. noted, failure to do this leads to problems which may act as barriers to success. We noted that having knowledge in initial factors is relevant for collaborative initiatives that are emerging, especially in the developing countries.

We note that there is sufficient literature to justify horizontal purchasing collaboration because of associated benefits (Johnson, 1999; Nollet and Beaulieu, 2005; Schotanus, 2007; Tella and Virolainen, 2005). However, in practice purchasing groups do not always flourish and premature endings of such groups occur (Schotanus, 2007). We therefore try to better understand the critical factors that may make the purchasing collaborative initiatives to start and operate, so that management of such collaborative initiatives may take note of them since current research (apart from some few researches done by Hoffmann and Schlosser, 2001 and Schotanus et al., 2009) offers little guidance in this area (Essig, 2000).

Points of departure from previous research

We reviewed the literature to identify the factors that are necessary for a successful horizontal collaboration. These include; trust (Bakker et al., 2008; Butler, 1991; Lee and Billington, 1992; McAllister, 1995; Nollet and Buleaulieu, 2005; Schotanus, 2007; Swan and Trawick, 1987; Svensson, 2004; commitment (Allen and Meyer, 1996; Bakker et al., 2006b; Brown et al.,1995; Dion et al., 1992; Gilliland and Bello, 2002; Kanter, 1994; Zineldin and Jonsson, 2000;) reciprocity (Anderson and Narus, 1990; Graen and Scandura, 1987; Stern and Reeve, 1980; Sullivan et al., 2003); dependence (Buchanan, 1992; Emerson, 1962; Hammarkvist et al., 1982; Mattsson, 1999) government intervention, internal support, collaboration structure (Fryxell et al., 2002), communication (Anderson and Narus, 1990; Laing and Cotton, 1997; Schotanus, 2007) size (Mudambi et al., 2004), governance (Enthoven, 1994), sharing mechanism and allocation of sharing benefits and risks (Heijboer, 2003; Schotanus, 2007), and uniformity of the members (Klein Woolthuis, 1999; Laing and Cotton, 1997; Polychronakis and Syntetos, 2007; Schotanus, 2007).

Note that some of these factors are not behavioural in nature, which is the main focus of our study. Nonetheless, we consider all these factors with a view to see the relative importance of behavioural factors to the other factors.

Whereas many studies have focused on the performance effects of collaboration (Bagchi et al., 2005; Johnson and Kristal, 2008), very few have focused on the factors influencing collaboration (Oh and Rhee, 2008). As Schotanus (2007) noted, there still exists minimal academic debate on critical factors of purchasing collaborations. We also note that Schotanus aimed at factors for managing a purchasing group. Whereas this was very relevant with studies in Netherlands where group purchasing initiatives have had a relatively longer time under such arrangements, and therefore management can be a challenge to the survival of these collaborations, in Uganda the concept is still new. In this research, we therefore direct the focus on the critical factors for start up collaborations. We also note that Schotanus (2007) and Hoffmann and Schlosser (2001) studied differences between successful and unsuccessful purchasing groups. Since in Uganda collaborations are still relatively new, these differences may be difficult to study, as respondents would find difficulties in evaluating their collaborations. We do not specifically consider factors for the management phase of a successful group. We mention this in our limitations of the study and suggest that future research projects could consider it.

We also note differences between developed countries and developing countries. Previous studies (Hoffmann and Schlosser, 2001; Schotanus, 2007, Schotanus et al., 2009), studied small and medium sized entities. Whereas these are defined as small and medium in the developed countries, they can be perceived as large from the context of developing countries.

We also note that Hendrick (1997) studied the perceived importance of critical success factors. However, we note that most of the factors were not behavioural. We argue that behavioural factors rather than economic, legal or technical dimensions are less understood in the literature and experience more problems in collaboration (Boddy et al., 2000; Lambert et al., 1998). Of the critical components to starting and sustaining collaborative initiatives, behavioural issues ñperhaps are the most fragile and tenuousò (Nicholas, 1999). We therefore focus on behavioural factors.

We do not test hypotheses, but we test the significance of success factors which we derive from theory for practical applicability in existing horizontal purchasing collaboration initiatives; an approach similarly used by Schotanus et al (2009). There are two methods of identifying success factors (Schotanus et al., 2009). One method is by directly asking respondents about the perceived importance of several factors used by Hendrick (1997) and Schotanus (2007). The second method is about measuring differences and similarities between successful and unsuccessful purchasing groups from several potential success factors (Schotanus et al., 2009). Then the factors that best predict success are identified as success factors.

We prefer the first method because for starting collaborative initiatives, it is more difficult and sometimes not realistic for respondents to evaluate success. Hoffmann and Schlosser also note this hindrance.

Theoretical foundation of factors for initialising horizontal purchasing collaboration

In this section, we include a theoretical analysis of factors for initialising horizontal purchasing collaboration. We consider factors that have not been covered before in Chapter 3.

Communication

We define communication as the formal and informal exchange of information and meaning between the parties of a working relationship, concerning day to day tactical or strategic issues of the relationship (Anderson and Narus, 1984; Leonidou et al., 2006; Kim and Frazier, 1997; Mohr and Nevin, 1990). In a collaborative initiative, communication builds trust and reduces concerns of perceived disadvantages by collaborating entities. Efficient communication leads to regular contact, which ultimately facilitates the sharing of information and the lowering of barriers regarding confidentiality (Mudambi et al., 2004). This regular contact between collaborating entities is likely to reduce uncertainty in the collaboration (Hoegl and Wagner, 2005). We note that whereas studies in the developed world suggest that trust plays a key role in online purchasing decisions (Pavlou, 2003), we still note that issues of trust have been found to inhibit the adoption of information technology in the developing countries like Nigeria, Mexico and Thailand (Ezeoha, 2005; Sukkar and Hassan, 2005). So a breakthrough of trust barriers is necessary to achieve benefits of collaboration. Communication gives assurances to all entities that the collaboration is going on. Basing on the transaction cost theory, a common information and communication platform supports standardisation (Bakker at el., 2008) and reduces opportunism. Basing on the resource based view; communication enables collaborating entities to share information or rare resources (Tyler and Steensma, 1995).

For starting collaborative initiatives, there are more communication problems (Laing and Cotton, 1997). Therefore for starting collaborative initiatives, communication should be efficient and effective (Schotanus et al., 2009), to ensure minimal transaction costs that justify continued collaboration.

Internal support

Though the collaborating partners have a great role to play in the success of a purchasing collaboration, the context, tone and tenor of the relationship are established by the respective top managers (Michael et al., 1995). Top managers of a collaborating partner will give it the confidence to go on. Some of the strategies in collaboration require constant approval from the individual partners themselves. This is even more relevant in newly established collaborative initiatives with no strong operating structures.

Sincere efforts by top management go beyond slogans and provide vision and broad goals that direct quality efforts, provide realistic assessments of resource requirements and plan for these resources (Ahire and Oôshaughnessy, 1997).

Uniformity of members

Whereas using the resource based view of the firm, we note that entities go to collaborate to realise resources they do not possess (Kamann et al., 2004; Wernerfelt, 1994). Several scholars (e.g. Polychronakis and Syntetos, 2007) suggest that some

aspects of the collaborating entities should be more or less uniform. This is even more relevant for PDEs which operate under similar public service work culture and operating PPDA guidelines.

From the transaction cost theory, uniformity is crucial in reversing the bounded rationality concept, because it ensures mutual forecasts of the parties and for all parties to take a uniform long-term view of the relationship (Ganesan, 1994). Uniformity also reduces room for opportunism (Wilding and Humphries, 2006).

Collaborating structures

We define structure as a permanent set of social relations with a certain pattern (Wasserman and Faust, 1994). The structure of a collaborative initiative is important if benefits from collaborative purchasing are to be gained (Bakker et al., 2008). Many scholars have argued that collaboration structure at formation is the key to collaboration success; hence success is predetermined by the initial combination of ingredients (Das and Teng, 1996; Doz, 1996; Shane, 1998). Based on Bakker et al., (2008), we note that there are few studies about collaboration structures (Aylesworth, 2003; DôAunno and Zuckerman, 1987; Nollet and Beaulieu, 2003; Schotanus and Telgen, 2007).

Based on the transaction costs theory, we note that in the initial phases of collaboration, the structure is aimed at having potential for savings through consolidating volumes (DôAunno and Zuckerman, 1987; Nollet and Beaulieu, 2003). Also based on the resource based view, we note that the growth phase has an autonomous structure, a separate organisation that manages the contracts, involves top management and separate resources are devoted to the collaboration (Bakker et al., 2008).

Sharing mechanism

Collaborating entities need a systematic and fair way of allocating gains and costs that result from operations. Sharing should be fair (Dyer, 2000; Heijboer, 2003). Based on the transaction cost theory, collaborating entities look forward to incurring lesser total costs than what they would have incurred without collaboration. We note that in practice, fair allocation of savings is difficult (Schotanus, 2007), however, this has to be done because the quality of the relationship between collaborating entities is based on this (Wagner and Lindemann, 2008).

Governance

From the transaction costs theory, we note that some entities to collaborative initiatives may be potential opportunists who look out for chances to gain more than the others (de Man and Roijakkers, 2009). This could be even worse for starting collaborative initiatives which have not yet developed sufficient trust, which need iterative transactions to create trust (Granovetter, 1973; Brown and Peterson, 1993; Powell, 1996).

Governance therefore becomes important, in ensuring that there is careful control. Control can occur through detailed contracts and working guidelines between the collaborating entities. However, we note that governance of collaborative initiatives should be a balance between having controls and relying on trust, since literature

(Ehin, 2000; Anheier and Kendall, 2000) suggests that trust flourishes under voluntary collaboration.

Collaborating knowledge

Knowledge is expertise and skills acquired through experience or education; the theoretical or practical understanding of a subject. Basing on the resource based view, we note that in collaborative initiatives, partners seek to learn and acquire from each other, knowledge that is not available to individual partners (Lei et al., 1997). Based from the resource based view, we also note that relatedness is composed of closeness to the competences of collaborating entities and tacit knowledge (Gulbrandsen et al., 2008). The building up and maintaining of specific knowledge (Wynstra et al., 2001), could be one way of developing tacit knowledge. Collaboration closeness captures similarities between an entityôs present knowledge and skills with the knowledge and skills of other entities, which sustains collaboration. We also note that new collaborative initiatives may have less tacit knowledge because of less time and experience in collaboration. However, it is argued that the weak ties between the new collaborative initiatives characterised by distant and infrequent interaction are more likely to be the source of novel diversified information which is interesting for relationships (Granovetter, 1973; Hansen, 1999; Cai et al., 2010). Low level of tacit knowledge means the collaborating entities ñcan tell more of what they knowò (Polanyi, 1966). We note that new collaborative initiatives have more explicit knowledge than tacit knowledge. Therefore, based on the transaction cost theory, there are less costs of knowledge sharing and transfer (Wagner and Buko, 2005). Related to this argument, low levels of tacit knowledge in new collaborative initiatives lead to low threats of opportunism (Kogut and Zander, 1993; Schilling and Steensma, 2002).

Based on transaction cost theory (Williamson, 1981), knowledge enables collaborative entities to reduce information asymmetry through having complete and perfect information. Knowledge on collaboration is important, because there is a growing array of research which shows that many partners enter collaborations with limited understanding of collaboration dynamics, which could affect the relationship (Hamel, 1991; Osborn and Baughn, 1990). If there is little, you can bring in little knowledge.

Government intervention

Government intervenes in the operations of collaboration to ensure efficiency and effectiveness of operation (Rai et al., 1996). Favourable government policies are required for formation and operation of collaborative initiatives (Taylor, 2006). However, government intervention can often have a restricted role in formation and operation of collaboration, especially where its tedious approval processes are involved (Cusumano, 1991; Rai et al., 1996). According to the transaction cost theory, the long processes may increase costs of operations and this may affect operations of collaboration.

Based on the transaction cost theory, we argue that entities in initial phases of horizontal purchasing collaboration seek to maximise benefits while reducing risks (Williamson, 1985). The entities therefore look up to efficient institutional governance systems as a cushion to protect them against future risks.

Size

We consider size as the number of entities in collaboration. Whereas we note that one of the first objectives of collaboration is to acquire more power in order to realise the associated benefits (Nollet and Beaulieu, 2005), basing on the transaction cost theory, we note that if collaboration involves many entities, it will lead to higher transaction costs and if entities are few, there will be less economies of scale (Schotanus, 2007).

We also note that the larger the collaboration size, the less the attraction a member feels towards the collaboration (Stoel, 2002). Therefore, there should be an optimal size of a collaborative initiative. In the study by Chan et al., (1999), once the group became too large, the outcomes decreased with additional increases in the group size.
Based on the transaction cost theory, we note that it is cohesion among collaboration members that would provide more leverage for better prices (Cleverly and Nutt, 1984; Comptroller-General, 1980; Henderson, 1988). Basing on this, then size and bundled volumes argument for lowered prices may be less relevant (Scanlon, 2002).

Method

Population and sample

The population of study was 116 central government PDEs in Uganda. Out of these, we collected data from 89 procurement officers who attended the workshop, about general procurement policies in Ugandan PDEs at which we gave a presentation of the factors that determine horizontal purchasing. All these officers were both theoretically and practically knowledgeable in horizontal purchasing collaboration. We noted that previous studies (e.g., Koutsikouri et al., 2008) have also used facilitated workshops and group discussions to identify critical factors.

Data collection and procedure

We used a questionnaire to get responses from 89 procurement officers representing 77% of the central government PDEs in Uganda.
In order to refine the questionnaire, and ensure validity and reliability of the research instruments, we carried out a pilot test mainly to ensure content validity (Mitchell, 1996) of the questionnaire.

Prior to the workshop, we pre-tested the questionnaire using ten respondents (who were practicing procurement officers in the PDEs and at the same time had research skills since they were studying for Master of Science in Purchasing and Supply Chain Management at Makerere University), and made the necessary adjustments, before the final questionnaire was used. This focus group was much similar to the final population those who were to attend a workshop. The ten respondents were chosen basing on Saunders et al., (2003) guidelines on the number of respondents for a pilot study (size of study, time, and money resources available, and having largely used a previously used standardised questionnaire). We thought that since all the respondents are mainly professionals, doing similar work, there would be no major variations in the populations. This number met the ten respondents recommended by Fink (1995b) for pilots of such student questionnaire designs. After the pilot testing, we made adjustments and prepared the final questionnaire.

We adjusted the question on the factor *collaboration hierarchy* to read *collaboration structure* because in Uganda government civil service, they use the term structure. We also noted that literature uses this term (Enthoven, 1994; Galaskiewicz, 1985;

Mintzberg, 1983; Nollet and Beauleu, 2003). We asked the respondents the extent to which they scored the level of importance of the individual critical factors. Responses ranged from 1 = Not at all important to 5 = Very important.

Response
We received response from all the 89 sampled procurement officers. All the responses got were complete; we did not remove any questionnaire for incompleteness. Since the workshop was not specifically about the importance of behavioural factors, it minimised the chances of having biased responses.

We used the Kolmogorov ï Smirnov Lilliefors Significance Correction (Table 4.7) to test for normality (Field, 2005). The data was found to be normal.

Results and discussion
Descriptive statistics
In Table 4.5, we show the results of the descriptive tests.

Table 4.5 Descriptive statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Trust	89	3.00	5.00	4.7303	.4946
Commitment	89	1.00	5.00	4.3596	.6784
Reciprocity	88	1.00	5.00	4.1477	.8379
Dependence	89	2.00	5.00	4.0899	.7634
Communication	89	2.00	5.00	3.6854	.9120
Internal Support	88	1.00	5.00	3.3523	.9102
Uniformity of the members	88	1.00	5.00	3.3295	1.1009
Collaborating Structures	89	2.00	5.00	3.2584	.8986
Collaborating Knowledge	89	1.00	5.00	3.1461	1.0824
Governance	89	1.00	5.00	3.0337	.8588
Sharing Mechanism	88	1.00	5.00	2.9545	.9815
Government Intervention	88	1.00	4.00	2.9545	.8292
Size	89	1.00	5.00	2.8764	1.1263
Valid N (listwise)	84				

Discussion of findings
From the descriptive tests, considering the minimum scores, none of the respondents rated trust as not at all important or as unimportant. All the scores are 3 and above. This may show the importance of the trust factor to collaboration in the Ugandan case. On the other hand considering the maximum scores, government intervention was the only factor not rated among the respondents as very important. None of the scores of government intervention is 5 and its mean score is the lowest (mean = 2.9545). This may show how the respondents perceive the factor as less important to collaboration.

Table 4.6 Tests of normality

Tests of Normality

	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
collaborating Knowledge	.250	84	.000
collaborating Sructures	.291	84	.000
Committment	.264	84	.000
Communication	.289	84	.000
Dependence	.296	84	.000
Governance	.210	84	.000
Governence Intervention	.204	84	.000
Internal Support	.266	84	.000
Reciprocity	.297	84	.000
Sharing Mechanism	.223	84	.000
Size	.214	84	.000
Trust	.452	84	.000
Uniformity of the members	.275	84	.000

a. Lilliefors Significance Correction

Our results show that trust, commitment, reciprocity, and dependence (mean score of 4.7, 4.4, 4.1 and 4.1 respectively; Sig .000) are considered to be the most critical factors for horizontal purchasing collaboration according to the respondents. On the other hand, governance, sharing mechanism, government intervention and size (means scores 3.0, 3.0, 3.0 and 2.9; Sig .000) are less important factors for horizontal purchasing collaboration according to the respondents.

Our findings seem to be related to other existing literature, for example Hendrick (1997) ranked 20 critical factors for successful purchasing consortiums. The behavioural related factor ñthere is a high degree of trust among all participantsò was ranked second. However, we note that most of the factors (19 out of 20) Hendrick considered were not behavioural as literature advances them. He included more operational factors. The outcome of behavioural factors being important seems to match with our findings. We therefore conclude that perhaps behavioural factors, more than other factors are necessary for successful horizontal purchasing collaboration, especially in the initial stage of collaboration, which may currently be the dominating stage of collaborative initiatives in developing countries. This is in agreement with findings (e.g. Schotanus, 2007; Browning et al., 1995) that when starting collaboration, behavioural factors are key, but once established, other previously less important factors become increasingly important to ensure proper management of the collaboration.

We however, note that Schotanus did not study reciprocity and dependence directly, and that commitment is a critical success factor in the management phase of collaboration. Please note that we did not study the factors during management phase of collaboration. The behavioural factor trust may no longer be a distinguishing factor between successful and unsuccessful purchasing groups since the initial adoption of this factor keeps the collaborating partners going. Other factors may then become more important.

Our results also show that government intervention (mean score 3.0, Sig .000) which is the enforced approach to collaboration is not appropriate for horizontal purchasing collaboration. This is in agreement with Schotanus (2007). This may be because PDEs in Uganda are autonomous and may perceive government intervention negatively and oppose it. This is in agreement with Rai et al. (1996) that government should intervene in the operations of collaboration to the extent to which it ensures efficiency and effectiveness of operations.

We note that uniformity is a less important factor in horizontal purchasing collaboration because many PDEs in Uganda operate at almost same level in terms of authority, resources, working environment, and guidelines. One would not expect a lot of diversity, thus respondents perceived it as less important compared to the behavioural factors. This is consistent with Schotanus et al. (2009), who found out suggest that uniformity may not be an important success factor because purchasing groups are already operating at the same horizontal level of a supply chain.

We, however, note some differences with the existing literature. Basing on Schotanus (2007), the organisation and similarity of the collaborative initiative scores relatively high (mean score 3.9) compared to ours (collaboration structures and governance). This may be because when a purchasing group has been existing for a longer time (as is the case in the Netherlands where the study was done), the relatively large size may require proper organisational arrangements. Sharing mechanisms then become increasingly important as and when there are resources to share. In situations where the collaboration is new, and perhaps little to share (costs or gains), then organisation may be a less important factor to collaboration.

In addition to the insights got from this chapter, we further analyse the situational analysis of the variables we consider in our study; trust, commitment, reciprocity and dependence.

We note that some horizontal purchasing collaborative initiatives started in 2003 and others 2004. These collaborative initiatives are relatively new. Developing high levels of trust and commitment requires longer time than these collaborative initiatives have existed. According to Hendrick (1997), time is a key dimension for horizontal purchasing collaboration to be an effective tool. Based on this reasoning, trust and commitment are still at low levels, compared to developing countries where it has existed longer.

Situational analysis of trust, commitment, reciprocity and dependence

We include the situational analysis of dimensions of these variables to further contextualise the above findings, and strengthen our hypotheses.

Situational analysis of trust and collaboration in Uganda

Although the meaning of trust is intuitively understood, researchers from different backgrounds ascribe divergent meanings to it (Tschannen-Moran and Hoy, 2000). We therefore include a brief analysis of the Ugandan context of trust below:

Trust in developing countries like China is difficult to earn (Fukuyama, 1995). *If a question for example is asked, the typical response is "why do you want to know that?" In Uganda, a question like "what is the price of this shirt?" is met with "how much money do you have?" instead of mentioning the price such as Ushs 10,000 or Ushs 20,000. If the user department informs the procurement department that there is no ink cartridge for use, the reply is "why not?", or "where did it go?". This is a response that possibly reflects a lack of trust among the various parties.* This analysis can be extended for public PDEôs.

Trust arises within a community of regular, honest, and cooperative behaviour, based on commonly shared norms. Such norms could be about professional standards and codes of behaviour. For example, we trust a doctor, because by his profession, we do not expect any deviation from those standards expected of medical personnel. In finance, accounting, and purchasing, officers are more often suspected not to do what they are expected of (Public Accounts Report, Uganda 2004). This is mistrust in the finance related disciplines, amongst which is procurement.

Trust manifests itself in terms of the form of concrete deeds and actions. Individuals are no better than their word. For example, in New York city, the Hasidic Jewish diamond traders complete million dollar business transactions strictly on verbal agreements ï in such cultures, a personôs word and reputation are highly valued (Scarnati, 1997). In Uganda on the other hand, even low value agreements are written with the assistance of expensive legal experts and several witnesses.

In Table 4.7 below, we further show the situational analysis of trust in Uganda.

Table 4.7 The situational analysis of trust in Uganda

Author/dimension	Contribution	Ugandan Situational Analysis
Dependability/Reliability (Swan and Trawick, 1987; Svensson, 2004)	This is about confidence, or consistency or predictability, or faith in the collaborating parties	In Uganda, the collaborative initiatives are relatively new. This may make consistency and predictability difficult to realise.
Honesty	This is about fairness, less motivation to lie and openness of management.	Though most information in public procurement practice is open for the public to access, there are cases of information asymmetry. For example some PDEs have knowledge of non performing suppliers, whom they can not disclose to other PDEs. Some of the information may not be correct, or some may be hidden. For example PDEs under collaborative initiatives have different price lists.
Competence	This is about ability, character, expertise and integrity of the collaborating parties	Most collaborating initiatives have expertise that is largely similar. Staff have all been introduced to public procurement procedures, apart from those of major PDEs. Again, collaborative initiatives being relatively new, character and integrity are

Author/dimension	Contribution	Ugandan Situational Analysis
		still on a low side, till such a time when they have developed closer relationships.
Partner orientation	This is about altruism, business sense of judgement, or congruence with collaborating parties	Altruism, the concept that emphasises pursuit of the public interest and not selfish interest is in line with the rationale of public procurement in Uganda, which aims at fairness and service to all. All the PDEs follow similar guidelines and getting oriented towards each other is relatively easy, than private procurement sector where collaborating entities follow divergent guidelines.
Friendliness	This is about acceptance, benevolence and liking towards collaborating entities.	Friendliness may be real after a reasonable time of relationship. People in Uganda are friendly. However being new relationships, friendliness has not yet reached the high levels. Benevolence, the disposition made up of a choice and desire for happiness of others, may range from medium to high in Ugandan PDEs.

From the discussions above, we note that though we appreciate that trust would strongly influence the level of collaboration, it has probably not yet been able to fully mature amongst the concerned public units for the case of developing countries

Drawing from the networking theory, the entities in Ugandan collaborative initiatives do not have adequate information and communication systems. Apart from the Integrated Information Management System (IFMS) which connects entities with financial information, there are no other information and communication systems to the best of our knowledge, which link entities together. According to Michelle and Kenneth (2008), the low levels of trust in the developing countries are thought to especially pose threats to emerging institutions. Drawing from the transaction cost theory, these entities are limited in their ability to receive, store, retrieve, and communicate information without error (Grover and Malhotra, 2003). Some high level of information asymmetry is existent. This limits the extent to which rational behaviour and behavioural aspects like trust can be conducted, since there are conditions of uncertainty. We therefore hypothesize:

H1b: The level of trust between Ugandan PDE's in horizontal purchasing collaboratives is low.

In the study, respondents said they were not yet sensitised about horizontal purchasing collaboration; and that little is known about it. Lack of complete knowledge and clarity of future operations and direction lead to low level of commitment to the collaboration. Respondents said that nationalism is sacrificed for individualism. In addition to this, they indicated there is less patriotism to national interests. Some PDEs still tend to ñownò up whatever belongs to them. This keeps the levels of trust and commitment low. A situational analysis of the dimensions of commitment further enables us to make a hypothesis on commitment.

Situational analysis of commitment and collaboration in developing countries and Uganda

According to Choppin (1994), commitment will be best achieved when people involved in the collaboration believe in its mission and objectives, and when they are aware of their potential to contribute to them. They will then be willing to take considerable effort for the collaboration to achieve its objectives. This does not only make them act, but also feel the commitment.

In the table below, we further show the situational analysis of trust in Ugandan

Table 4.8 The situational analysis of commitment in Uganda

Author/dimension	Contribution	Ugandan situational analysis
Instrumental commitment (Allen and Meyer., 1996; Brown et al.,1995; Dion et al.,1992; Gilliland and Bello., 2002; Zineldin and Jonsson., 2000)	This is where an actor is constrained by the costs and inconveniences of leaving the current collaboration. In our case, the collaborating entity will keep going on, because leaving will be inconveniencing and will involve financial and non financial costs.	In Uganda, PDEs are legally autonomous. This means they have an option to operate alone. They collaborate mainly on voluntary bases. Since collaborative initiatives have not gone deep into collaboration, then the costs to incur after leaving collaboration may not be high. This makes the dimension of instrumental commitment to horizontal purchasing collaboration low.
Normative commitment (Allen and Meyer., 1996; Brown et al.,1995; Dion et al.,1992; Gilliland and Bello., 2002; Zineldin and Jonsson., 2000)	Normative commitment is based on the collaborating entityôs value in the collaboration. A value is a preference of one mode of behaviour over another. It is about obligations that members feel to remain with an organisation and build on generalised expectations.	Whereas in Uganda, PDEs are largely similar in terms of size, authority, stakeholders etcetera, the similarities in values PDEs stand for are rated low (Tumwine, 2006). This may be because of differing mission statements of each PDE, since they are not derived from a similar national mission. PDEs have not yet had enough time to learn the ñins and outsò of each other.
Affective commitment (Allen and Meyer., 1996; Brown et al.,1995; Dion et al.,1992; Gilliland and Bello., 2002; Zineldin and Jonsson., 2000)	This relates to commitment by a collaborating entity in relation to the identification and involvement with the others. It is a feeling of belonging, and a sense of attachment to the collaboration.	PDEs would wish to be associated with the big ones, but this may not be the case with the many same size PDEs. Since most PDEs at horizontal collaboration have same authority and almost same level of resources, the feeling of belonging and sense of attachment to the other collaborating PDEs may be low.

In public service like public procurement, those involved are working towards achieving benefits, which will be shared by all members of the public. Much as each member benefits, the particular outcomes can not be easily traced and therefore appreciated by the individual procurement units. In Uganda, this worsens the situation where most of the financial benefits from public activities are taken by some individuals through corruption (NPPIS Report, 2007).

Collaborating entities, especially those that have just emerged, tend to practice adversarial engagement instead of cooperation (Mudambi et al., 2004). While they have a philosophical commitment to horizontal purchasing collaboration, they had not

consciously designed or implemented systems to support this strategy, so they get committed to a low level.

Compared to developed countries, flexibility, adaptability, and consistency in developing countries can be challenging (Surana et al., 2005). Voordijk (1999) further notes that in developing countries, few links exist between collaborating partners. Partners are seen as less cooperative and less reliable (Callahan, 2000; Babbar et al., 2008).

Drawing from the resource based view, for new horizontal purchasing collaborative initiatives, capabilities are still of low value and low rareness, creating low conditions of heterogeneity. Some of the capabilities for instance human resource competence can be imitated with time which may create instability in the collaboration (Barney, 1991). Besides, basing on the resource based view criteria of what constitutes advantage-generating resource (Amit and Schoemaker, 1993; Barney, 1991, Grant, 1991), public procurement uses the same guidelines, which leads to duplication of processes and therefore capabilities.

Drawing from the transaction cost theory, because of opportunism, entities in the new collaborative initiatives have not yet overcome self interest with guile; like cheating and lying. This raises transaction costs of monitoring the behaviour and making sure that other entities do not engage in opportunistic behaviour. Entities may not be committed to the collaboration. Further, drawing from the transaction cost theory, new collaborative initiatives in Uganda have less desire to continue and further develop the collaboration. This is partly because the transaction costs are still high. The transaction costs will reduce as commitment increases (Kim, 2007). In the initial phases of collaboration, entities may not readily accept other collaborating entitiesô specific requests and processes (Morgan and Hunt, 1994).

The developing countries and particularly Ugandan collaborative initiatives being new, they have not yet got clear understanding of specific needs of each other, to accommodate similarities in issues like product quality, delivery schedules and specifications. The transaction costs therefore remain relatively high and may lead to low levels of commitment.

We therefore hypothesize:

H2b: The level of commitment of PDE's in Uganda in horizontal purchasing collaboratives is low.

We also note that there is no lead PDE with leadership legitimacy or steering committee with representatives from collaborating PDEs to make decisions on the general direction. PDEs being almost at the same level, means they do not perceive others as having unique and critical resources for which there are a few alternatives to justify holding on. This implies low levels of dependence.

Situational analysis of dependence and collaboration in developing countries and Uganda

We present the Ugandan situational analysis of dependence in Table 4.9 below.

Table 4.9 Ugandan situational analysis of dependence

Author/ dimension	Contribution	Ugandan situation
Technical dependence	This is when two organisations technically rely on each other because they have to use compatible equipment. This enables the participating members to mutually use the assets in a technical sense.	In Uganda, the equipment may not easily be compatible since each PDE has its own specifications. For example IT equipment differs in make and model, for different PDEs. This reduces compatibility of the equipment, and reduces dependence on other PDEs. Since collaborative initiatives are relatively new, PDEs have not largely adapted their mutual business operations. This makes technical dependence is low.
Time dependence	Here, two organisations have a time based need of their activities. Based on the networking theory, time dependence is more important in supply chain networks where leanness (Lambert et al., 1998) is key.	To PDEôs, the Ministry of Finance, Planning and Economic Development has a great implication to the timing it releases respective funds. Horizontal purchasing collaboration requires funds for the participating PDEôs at similar times, if the activities are to be jointly carried out at the same time. This makes the time dimension important. Some PDEs require services of other PDEs in predetermined sequence, for instance, MOJCA PDE has to first advise on the suitability of the contract before another PDE executes the contract
Knowledge dependence	This is where knowledge develops between different parties, as a result of interaction. Such is tacit knowledge and is unique to the very partners in the collaborative arrangement. This is applicable in horizontal collaboration because tacit knowledge is unique to a particular partner, and can not be copied. Therefore, a partner may need to rely on the other for such knowledge.	In Uganda, even where there are lawyers in every public unit, still the Ministry of Justice and Constitutional Affairs is referred to whenever there is a need to draft a contract. Various units have to refer to staff of other ministries for knowledge on how to handle a certain purchase. For example, most of the ministries considered in our explorative study always referred to a Principal Procurement Officer in the Ministry of Education and Sports, including those officers at the same rank. Based on the resource based view, knowledge especially tacit knowledge which can not easily be copied, is an important asset (Gingold and Johnson, 1998) for a PDE, which motivates other PDEs to collaborate with it.
Social dependence	This is where the individuals within the relationship get attracted to each other, they like to work together. The interaction creates bonds that are hard to break, and members feel more obliged to collaborate.	Though there is interaction, it is generally for formal processes, and sometimes technical. Interaction has been on for a short time, because these procurement and disposal entities started in 2003 (PPDA Act, 2003). We therefore do not expect social dependence to be a major influence to horizontal purchasing collaboration in Uganda. The social atmosphere and personal chemistry (Svensson, 2004) between the top managers of the PDEs have not yet reached high levels. Social dependence is still low.
Economic /juridical	This is the formal dependence, especially in the form of written contracts	With relatively new collaborations and low level of trust, PDEôs tend to depend on others because of formal contracts.

Author/ dimension	Contribution	Ugandan situation
Market dependence	It refers to an organisationôs image and status that may positively influence another organisationôs image and status.	Apart from five key ministries that are classified as large, the issue of dependence as a result of image and status does not seem to be strong in Uganda. This may be because PDEs are largely similar, in terms of size (apart from five key ones) and authority, which reduces possibilities of some PDEs positively influencing othersô image and status.
Information technology dependence	It refers to two organisations that may invest in a common IT standard, such as electronic data interchange.	Currently, all Ministry PDEôs depend on the Integrated Financial Management System; with the Ministry of Finance Planning and Economic Development. Various PDEs can network with others for example MOFPED can monitor financial information relating to other PDEs using the software.

From the literature (Ball and Pye, 2000; Buchanan, 1992; Emerson, 1962; Hendrick, 1997; Hammarkvist et al., 1982; Johnson, 1999; Mattsson, 1999; Nollet and Beaulieu, 2003, 2005; Pfeffer and Salancik, 1978; Polychronakis and Syntetos, 2007; Tella and Virolainen, 2005), we find that in a horizontal purchasing collaboration arrangement, each PDE has a relatively high level of independence and can start and complete a purchasing transaction on its own (PPDA Act, 2003). This reduces the strength of the dependence concept.

In Uganda, PDEs have duplicated resources. For example, the Ministry of Education and Sports has building equipment, which should ideally be a specialisation of the Ministry of Works and Transport. Each PDE employs specialists in different fields of specialisation. This makes PDEs relatively self sustaining and therefore reducing the need for dependence. For knowledge dependence, this would be very motivating if the collaborations have existed for a relatively long time to create specific tacit knowledge for specific entities, from where other entities would wish to benefit from. We note that the PPDA Act (2003) is relatively new, and the horizontal purchasing collaboration itself is a new concept. Tacit knowledge has not fully evolved. All employees seem to be relatively new (Ministry of Public Service 2007 records). This reduces the contribution of the knowledge dependence dimension to dependence.

Drawing from the resource based view; we note that horizontal purchasing collaboration entities may not depend on each other for a high level of operations since they operate at relatively same level of authority. In their initial years of collaboration, entities may not make changes to their processes and specifications to meet each otherôs needs (Hailen et al., 1991).

We therefore hypothesize:

H4b: The level of dependence among PDEs in Uganda in horizontal purchasing collaboratives is low.

Another lesson we note from the study is that procurement officers in Ugandan PDEs are in the middle or low levels of the organisational hierarchy. This means they do not sit in the top level meetings that take strategic decisions, yet we also note procurement

involves strategic decisions. For example, even if they appreciate the contributions of other PDEs to their operations, such officers can not authoritatively reciprocate to the corresponding PDEs, which may likely keep the level of reciprocity low.

Situational analysis of reciprocity and collaboration in developing countries and Uganda

We look at reciprocity in three ways; equivalence, immediacy, and interest (Sullivan et al., 2003). Similar studies on collaboration (Graen and Scandura, 1987; Liden et al., 1997) have used this three way approach. In Table 4.10, we present the Ugandan situational analysis of reciprocity.

Table 4.10 Ugandan situational analysis of reciprocity

Author/dimension	Contribution	Ugandan situational analysis
Equivalence (Graen and Scandura, 1987)	This is where parties in a relationship attach the same value to what they get as to what they receive. When there is commitment, even if a difference existed, it would be ignored. This kind is common during the starting phase of collaboration.	PDEôs sometimes perceive the input of others and compare them with theirs, and accordingly adjust their own input (GOU Report, 2007). But in practice, there may be no equivalence.
Immediacy (Sullivan et al., 2003)	This recognizes the time dimension in reciprocity. Partners are interested in knowing how soon the return will be for the particular actions carried out now. According to Sullivan et al. (2003), as long as trust is built among the collaborating parties, the time span of reciprocation lengthens, and if the relationship reaches high quality, concern about when reciprocation occurs becomes less important.	Most collaboration initiatives are new. Organized and regulated procurement in Uganda is new; the PPDA Act (2003) itself is only a few years back. Trust has probably not yet fully evolved. Therefore, reciprocation time remains an important factor.
Interest (Liden et al., 1997)	This is about self interest as compared to the interests of the collaboration. As relationship quality increases, interest will move from a focus of self interest to a focus on mutual interest. Individual interests will be offset for group interests. There will be unselfish devotion and deep concern for the other partners in the collaboration.	Because of relatively a short time of existence of purchasing collaboration and the PPDA Act (2003), relationship quality has not been achieved in Uganda. Selfishness is still common. There have been conflicts amongst ministries for resources. For example, public bodies like Post Uganda Ltd and National Water and Sewerage Corporation deny each other services, instead of reciprocating behaviour (New Vision, September 10, 2006). Group interest is still at low level.

Since horizontal purchasing collaboration is new in Uganda, trust has not reached the sufficient level for collaborating entities to ignore the imbalances between their operations with each other. This may lead to calculative actions, and for some entities to withhold actions, once they have ñweighedò the returns from the other party. This can lower down the impact of reciprocity to horizontal purchasing collaboration. Thus the factors of equivalence and interest may not be strong. On the other hand, because of the relatively short time collaboration initiatives have been going on in developing countries, immediacy becomes crucial as noted above.

Drawing from the transaction cost theory, we argue that in Ugandan collaborative initiatives, there are no contracts upon which collaborative initiatives operate. This means entities can not put in place contractual provisions for potential future contingencies (Oum et al., 2004). This creates incentives to exploit each other (Parkhe, 1993) and to reduce the level of reciprocity among collaborating entities.
We therefore hypothesize:

H3b: The level of reciprocity among PDEs in Uganda in horizontal purchasing collaboratives is low.

4.5 Practical implications

From the two exploratory studies, we derive insightful suggestions for the practicing managers, which may improve horizontal purchasing collaboration in the developing countries and particularly in Uganda.

There is less collaboration in Ugandan PDEs in the final stages of procurement, compared to the initial stage of procurement. We note that the final stages of procurement where there is collaboration are about contract management. The reason for minimal collaboration in the contract management phase may be because the processes involved do not fall under the procurement function according to the Ugandan law. We also note that the first steps in the purchasing cycle as per Van Weele (2000) contribute more to the final outcomes of the process. Therefore the last processes may not yield much benefit, and this could equally explain why there is minimal collaboration in the last phases of the Ugandan purchasing cycle. For example after the contract has been signed, the stores personnel receives the supplies, the internal auditor verifies receipt and checks whether the supplies matches the sample, the quality control function checks the quality and the accounts function prepares payment to the supplier. The procurement function is only partly informed of what has taken place and is no longer in full control of the process it initiated. Therefore, there is need to consider cross functional processes and stakeholders other than those in the procurement function if one wants to cooperate on contract management. We extensively present this in Chapter 7.

Hard urgent tasks are a great motivation for horizontal purchasing collaboration. This motivation is more of short term, to solve a current problem than the future benefits. Nevertheless, managers could use this opportunity to build purchasing relationships. We deal with this in Chapter 7.

With fewer and not properly structured collaborating PDEs, the factor of ñstructure of collaborationò may not be so crucial to sustenance of a collaborative initiative. In the initial phases, structures and strict rules may not motivate. Putting proper structures and strict rules of the game could be more applicable when collaboration has become large. Sharing mechanisms equally may not play a major influencing role. There is need to have priorities of factors to concentrate on during the starting and growth phases of collaboration. We expand on this in section 7.3.

Whereas the majority of the respondents appreciate that collaboration has a future and will become more prevalent, 29% point out selfishness and bad experiences from the past dealings (even those not related to procurement) they have previously had.

Managers of collaborations need to reduce on ñownershipò of individual entities and to sensitise collaborating PDEs about the expected benefits in horizontal purchasing collaboration and not use the previous general experiences to discredit collaboration.

We note from our exploratory study 2 results, that whereas the behavioural factors like trust, commitment, reciprocity, and dependence are most critical factors for horizontal purchasing collaboration, management should also consider the other non behavioural factors. We agree with research based on the developed countries like the findings of Schotanus et al. (2010) and Browning et al., (1995), that while starting collaboration, behavioural factors are key, but once the collaborative initiative is established, other factors become increasingly important for proper management of the collaborative initiative. This implies developing countries should put emphasis on behavioural factors at this time.

Since government intervention is among the least scored factor, relative to the others (mean = 2.9545 out of a maximum of 5), we argue that in Uganda, government intervention should cautiously be applied on collaborative initiative. This is relevant where there is anecdotal evidence that developing countries tend to intervene in most activities of the economy, not based on rational but political reasons.

4.6 Limitations

We carried out a two case study in Exploratory study 1, which may limit the strengths of comparison and validity of findings. However, though some literature suggests four cases (e.g. Eisenhardt, 1989), other literature sources (e.g. Yin, 2003) support our approach. Note that our deeper understanding of the issues under the cases makes our findings valid. We therefore need to be cautious about statistically generalising the results

Whereas previous research (e.g. Hoffman and Schlosser, 2001; Schotanus, 2007) have studied factors for initialising collaboration by considering differences between successful and unsuccessful purchasing groups, our study does not consider these differences. Note that collaborative initiatives being new in developing countries and specifically in Uganda, respondents may not easily evaluate the differences, since being successful or not successful has not yet become a major concern.

4.7 Conclusion

We note that there is low level of behavioural factors. Since trust is mainly about feelings about the relationship (Leonidou et al., 2006), it is likely to be more achieved than commitment which is a manifestation of actions to the collaboration. These actions do take a relatively long time to be done and explicitly appreciated. As our confirmation of the literature, trust should be built more in the initial phases of the collaboration than other. Once trust is built, commitment will follow. As a contribution to the ongoing debate about what leads to the other: trust or commitment; we add to the scholarly work that trust will lead to commitment (Andaleeb, 1996; Morgan and Hunt, 1994; Whan and Taewon, 2005; Yilmaz and Hunt, 2001). However, unlike these scholars who do not consider the time dimension in making to trust ï commitment analysis, we argue that in the initial periods of collaboration, trust

will be needed first to lead to commitment. After sometime, the commitment developed may eventually lead to more trust, at a higher level.

Chapter 5 – An in-depth case study of horizontal purchasing collaboration in Uganda

5.1 Introduction

In the previous chapter, we considered two exploratory studies to know the state of horizontal purchasing collaboration in PDEs in Uganda. In both studies, we explored the general practice of horizontal purchasing collaboration, thereby laying a foundation for further chapters and developing some hypotheses. In this chapter, we carry out a specific in-depth case analysis of a relatively more established and organised collaborative initiative, the Justice Law and Order Sector (JLOS). We then develop further hypotheses to be tested in Chapter 6 and to be used for application of horizontal purchasing collaboration (Chapter 7 and Chapter 8).

In the remainder of this chapter, we discuss the method we use in analysing the in-depth case, the general and procurement related background of the JLOS horizontal purchasing collaboration, and the motivation to collaborate under the Sector Wide Approach (SWAp) framework.

We include Figure 5.1 to show the position of Chapter 5 in the outline:

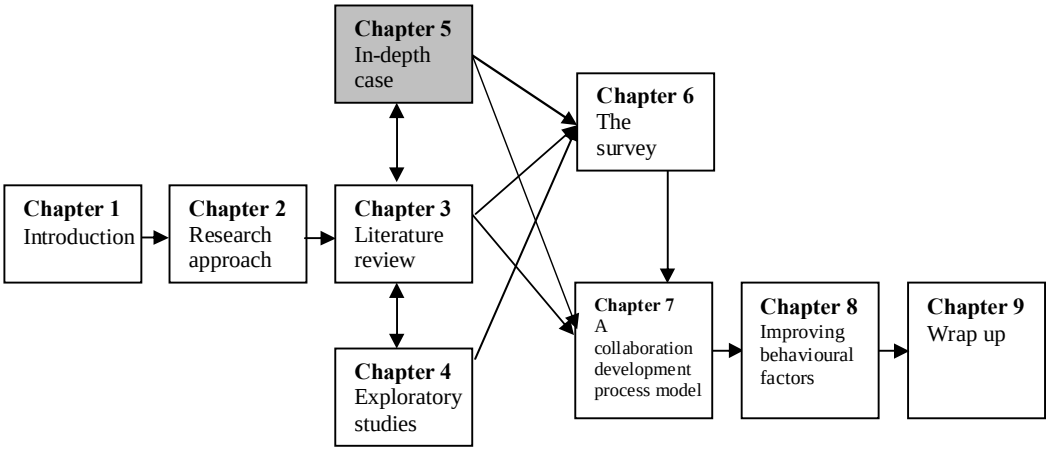


Fig. 5.1 Research outline

5.2 Objective

The main objective of this chapter is to derive lessons from a more formal and structured collaborative initiative in the developing countries like Uganda, to enable us develop hypotheses for application of horizontal purchasing collaboration.

5.3 Method

Study design
Case based research methodology, was selected for use. The purpose was to obtain a depth of understanding of the horizontal purchasing collaboration issues under the case. We did not want to be limited by the rigid limits of questionnaires and models

(Voss et al., 2002). Whereas other methodologies like survey could have been used, we noted they would provide a breadth of understanding, without first deeply understanding issues that seemed novel at our beginning (Mukherjee et al., 2000; Yin, 1994). As Johnson and Lewin (1996) found out from their meta analytical study, research should penetrate below the surface of the usual large surveys. Much of the research in collaborative behaviour has remained at the prescriptive and survey based level (Emberson and Storey, 2006). We consider context-specific research (Gadde and Hakansson, 2001), to explore the apparent truths (Christopher and Juttner, 2000).

Data source

We selected the JLOS case because it has ten collaborating PDEs, which is a sizeable number. We found JLOS interesting to pick because unlike any other collaborating PDEs, this collaboration was more formal and structured. It was also possible to get literature about the sector, unlike others.

Data collection

We used JLOS reports, research papers, and procurement records to carry out document analysis and deduce meanings. To improve validity of the findings we got by use of document analysis method, we supplemented this method with the interview method (Den Hertog and Van Sluijs, 1995; Webster, 1991).

We interviewed two key informants, one from the JLOS secretariat and another one from the Ministry of Justice and Constitutional Affairs policy and planning department. These were key in establishment and operationalisation of JLOS collaborative initiative. The key informant technique of data collection has been recommended by previous scholars (e.g. Cowles, 2002). Key informants were selected carefully, based on possession of special knowledge, willingness to share their knowledge and skills with us and accessibility to perspectives or observations we could not have accessed (Goetz and Lecompte, 1984).

We include the figure below to show the position of the key informants we considered as our respondents. The JLOS secretariat and Ministry of Justice and Constitutional Affairs coordinator receive information from all the committees at various levels. They are knowledgeable in affairs of the collaboration.

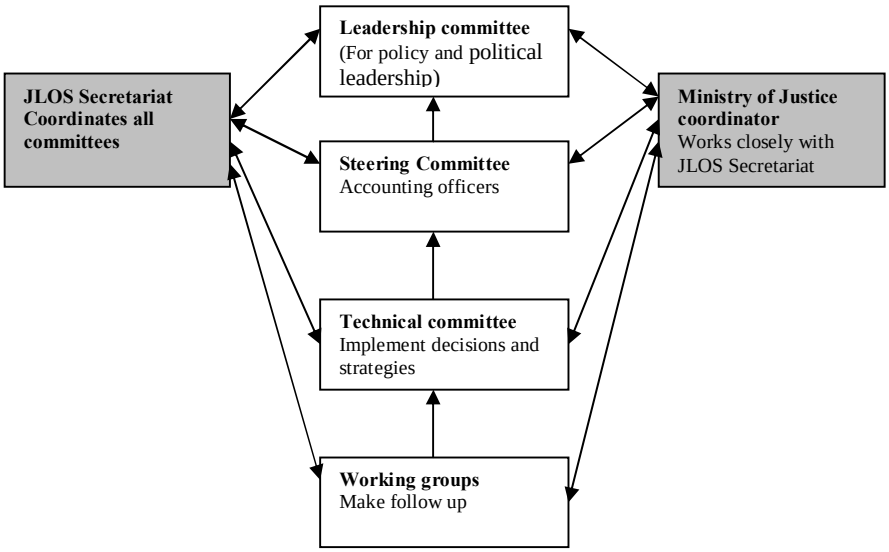


Fig. 5.2 Position of key informants

According to Johnson (1990); Kumar et al. (1993) and Sanjek (1990), the questions we asked key informants were data driven and according to the direction and relevancy of the discussions with them. These included questions on: frequency and formality of meeting of the collaborative initiative; increased efficiency and effectiveness in the purchasing process; improved collaboration among JLOS institutions; improved lead-time; specifications of goods, services and works and the philosophy before and after collaboration.

We made prior appointments with each of the key informants. We had to reschedule our appointments to meet their convenient schedules. Each interview took between one to two hours. We used an interview guide to avoid digressing to unrelated issues. We recorded the responses in notebooks. On three occasions, we did not clearly understand what we had written and had to call back to confirm original views of respondents.

We used the notice-collect-think process model (Agar, 1991). We wrote notes during our interview sessions with key informants. We also picked relevant information from the documents. We then critically read through our notes several times to notice trends of insightful themes. We would keep building up new insights to respective themes. We then looked for patterns across all interviews and relevant information got from the documents to make conclusions.

5.4 The general and procurement background

The general problem

From 1966 to 1986, there was political, civil, and economic regression in Uganda resulting into the breakdown of the functions of the state including the maintenance of law and order. There was lack of civil authority. This made it impossible for the justice system to function (Edroma, 2005). Institutions did not have adequate financing to operate and members of staff were demoralised. This resulted into acts of

corruption. Consequently, there was loss of public confidence in the justice system. This can be illustrated by the high incidence of mob justice (MOJCA Report, 2005).
People were unable to meet the high costs of justice. In the MOJCA Report (1995) report, the court fees were too high and therefore were limiting the poor from accessing justice.

Lawyers were concentrated in Kampala city, making it further difficult for the majority of the people who live upcountry to access legal representation. About 24 million out of 26 million people lived upcountry in this time period (NHPC Report 2000).

The police force services were not available in half of the districts in the country (MOIA Report, 2006). No communication equipment was available to the few districts that had police services. Even where the equipment was purchased, it was a problem to deliver such to the rural districts because there were not enough vehicles.

The procurement related problem
In all the ten institutions, procurement related problems were high. For example according to the interview with the senior planning officer Ministry of Justice and Constitutional Affairs, in 1998/99, there was malfunctioning in all the justice system related institutions.

All the institutions had shared responsibility in the inmates. So, no institution would procure fuel, expecting the other to procure. As a result, inmates could not be produced in court within the 48 hours required by the law. This resulted into legal suits by some inmates which made government loose 1.3 billion Uganda shillings in payment of damages (MOFPED National Budget, 2005/2006). Only 21% inmates would be taken to court at any point (Court records, 2006). Judicial officers could not be hired or contracted. At some extreme point, there were no handcuffs. All these had implications on delivery of justice.

The ten institutions are crosscutting. They were all procuring similar supplies, services, and/or works at the same time, since they had similar goals, strategies, and targets. This increased costs of operation in several meetings and allowances. This further reduced the available funds for the direct delivery of justice (OAG Report, 2006).
There were no sufficient procurement staffs to handle procurement work in the ten institutions. Only the Ministry of Justice and Constitutional Affairs had a qualified procurement officer. The Ministry of Gender, Labour and Social welfare and Uganda Prisons Service had no qualified staff in procurement or even storekeeping (Ministry of Public Service Report, 2006).

In some of the supplies that were being used jointly, there was a problem of harmonizing specifications. According to our interview with one of the officers in the Judicial Service Commission, there was a disagreement on the purchase specifications of the type of pickup trucks between prisons and the police departments. Disagreeing on specifications put the whole process on a standstill which further added to the transport problem. Lack of dependability on other collaborating PDEs, competence and honesty issues were suggested as the reason for this. The Ministry of Justice and Constitutional Affairs for example was not comfortable with the expertise of the

Ministry of Gender Labour and Social Welfare staff, and thus not trusting the specifications developed by them. All these are issues of among other things trust, commitment reciprocity and dependence.

Each of the ten institutions had a relatively small spend budget compared to the spend budget estimate for the whole sector. Buying individually was expensive for all the institutions. For example, some of the big suppliers could not accept to supply smaller quantities. The entities would therefore resort to buying to low scale operating suppliers with associated high costs.

5.5 The motivation to collaborate under the SWAp - JLOS framework

In 1999, the public outcry was heard by all stakeholders, including the international community. Various studies were carried out to investigate the situation and recommend a way of solving the problem: These were the Criminal Justice Review (1997), Uganda Integrity Survey (1998), The Commercial Justice Study (1999), Crown Agents Legal Sector Programme (1999), and the Policy Shift Mamba Point Meeting, (November 1999). At the policy shift Mamba Point meeting, all the ten institutions held a joint meeting, to find ways of reversing the situation. Each institution identified prime problems that hinder the delivery of justice in Uganda.
It was agreed, among other things, that these problems were accelerated by the absence of a clear policy framework and unifying strategic plan for the institutions in the sector.

The participants identified 40 problems. These were ranked and reduced to ten. Procurement problems came up. Other related problems to procurement include corrupt practices in tendering and a lack of effective planning and budgeting. The SWAp approach below was adopted.

5.6 Features of the Sector Wide Approach

The Sector Wide Approach (SWAp) is a new way of tackling development related issues. The key features of SWAp include:

- An analysis of key constraints through examination of all contributing factors;
- Bringing together all stakeholders to develop a sector wide, prioritized, costed strategic plan for reform;
- Collection of baseline data and setting of performance indicators for monitoring and evaluation of reform;
- Donor budget support to aid reform to ensure national ownership and;
- Improving procurement and accessibility of supplies to the members.

The SWAp strategy in Uganda has best formally been adopted by the Justice Law and Order Sector (JLOS). All ten institutions (PDEs) are members of JLOS. The JLOS addresses crosscutting issues that include the health, education and water sanitation sectors. The JLOS thus seeks to increase inter-sectoral linkages to ensure that sector objectives are included in the objectives of other sectors, where relevant. To carry out the functions of JLOS, facilitation is very important, in terms of having an efficient and effective joint purchasing system.

5.7 Structure of the JLOS

The JLOS is managed according to a well established and deliberate structure. The structure includes: the Leadership committee, which is chaired by the Chief Justice. This committee mainly gives political support and policy guidance across the sector. Below this, there is the Steering committee, which is chaired by the Solicitor General. It consists of the top officers (Including Accounting Officers who are in charge of procurement decisions) of each JLOS institution. The Technical committee is responsible for implementation of decisions and strategies. It consists of senior and middle level management from the JLOS institutions. Under the Technical committee, there are Working groups, which make follow up of work done by the Technical committee. The JLOS Secretariat builds consensus among the JLOS stakeholders and ensures that there is a shared vision by all the stakeholders. To provide accountability to the stakeholders and the community, a National Justice Forum provides a platform at which all issues are discussed.

Important properties of JLOS structure
We note the following properties of JLOS structures, which may also contribute to the success of collaboration through the enhancement of behavioural factors.

- All committees in the JLOS structure have representatives form all the member institutions;
- Top management is involved in the JLOS structures. This makes decision making faster, as the members in the meetings can take decisions without further seeking authorisation;
- Committees meet regularly. This avoids backlogs of work. Meeting regularly also results into a mutually consistent pattern of performance perceptions and attitudes (Powell, 1996; Wilkinson and Young, 1999);
- There is constant follow up and reminders to ensure agreed positions are implemented;
- In the JLOS meetings, though there are established structures, there is no protocol of authority; all members regard themselves as equal contributors to the debate being considered. This is necessary in building trust and commitment;
- While in the group, each member does not represent and defend positions of the JLOS institution, but acts on behalf of the whole JLOS;
- In meetings, consensus is aimed at rather than the majority. This ensures positive perceptions of the shared vision.

5.8 Outcomes of JLOS horizontal collaboration

General outcomes
The JLOS collaboration has several general outcomes that exceed the procurement level. Some examples of general outcomes are; identification and withdrawal of 600 cases which had no evidence, reduced back log cases and established measures not to accumulate such cases again, increased efficiency and effectiveness in handling cases and greater bargaining power than individual institutions had. Other general outcomes are; reductions in the number of persons staying on remand beyond constitutional period from 39% to 1% and 23% to 10% for serious offences and petty offences respectively and improved processes like coordination, communication and cooperation among JLOS institutions.

Procurement related outcomes

- There was development and distribution of agreed performance standards for purchasing and other administrative activities;
- A coordinated approach for planning purchasing, budgeting and other financial activities was put in place, throughout the JLOS structures;
- The purchasing process was expedited, materials bought to procure works. Construction of regional offices of Directorate of Public Prosecution, Ministry of Justice and Constitutional Affairs and courts were build and completed in a short time (e.g. it took one year to complete the regional court in the western region under the joint JLOS framework, compared to three years the Ministry of Justice and Constitutional Affairs had planned to take before the JLOS collaboration (interview with the Senior Planner, Ministry of Justice and Constitutional Affairs);
- The institutions were able to jointly purchase heavy duty vehicles from a low-price-high volume supplier, who otherwise had not accepted to supply individual institutions because of low spend value. The institutions in the JLOS collaboration were able to jointly save 1.16 billion Uganda shillings because of buying from a low price supplier with discounts (MOJCA records).
- Training of purchasing staff has been possible with all the institutions in JLOS (JLOS Secretariat Report, 2007);
- The lead time of supplies has greatly improved. This is because of the structures of JLOS. Meetings comprise of various members with differing powers. In one meeting, all the necessary actions can be executed and expertise is readily available from the ñpoolò of diverse membership. A meeting can be a ñone stop centreò unlike several sessions in an individual entity (Interview with Procurement officer, MOJCA). For example stationery purchased by Ministry of Justice and Constitutional Affairs entity separately has a lead time of 60 days, while under the JLOS framework, the lead time reduces to 30 days (MOJCA Records, 2005).
- Bulk purchases are done, for all the JLOS institutions. According to the JLOS Secretariat, some of the purchases are now bought in bulk for three months use. The information technology match well as the same specifications of equipment are emphasised, contrary to when the individual institutions had different hardware software packages that were slowing down processes because of incompatibility.

There has been efficiency in generation of reports under the JLOS initiative. In the table below, we indicate how efficient it is to generate procurement reports in the JLOS (fourteen days) compared to generating reports from individual members of the JLOS collaboration. They all double the time if they work independently, compared to when they work jointly. We interviewed the respondent from Ministry of Justice and Constitutional Affairs on why reports take long while the PDE is operating alone for relatively comparable purchases. The respondent attributed this to lack of enough competent procurement officers, and lack of drive and interest to do work in a more interesting joint operational style.

Table 5.1 Days taken to generate reports

PDE/Sector	Average days to generate report after purchasing activity
Justice Law and Order Sector (collaboration)	14 days
Ministry of Justice, and Constitutional Affairs (alone)	29 days
Ministry of Gender, Labour and Social Welfare (alone)	37 days
Uganda Prison Service (alone)	39 days

We notice that all JLOS PDEs had one common goal, to dispense justice. They all faced similar problems to collaborative initiative. We conclude that entities to collaborate should belong to same sector. This, we argue shortens the time to appreciate collaboration, have common long term orientation and have shared goals.

We note that PDEs in JLOS collaborative initiative had a common problem of consistent judicial crises, which acted as a ñcatalystò for change in favour of collaboration. Most of PDEs are passive to collaboration; they need a critical minimum effort to ñpushò them into realising the urgent need to collaborate.

5.9 Lessons learned from the Justice Law and Order Sector collaboration

We were able to derive some general lessons about collaboration of government sectors and specific about horizontal purchasing collaboration. We use some of these lessons to support the discussions in further chapters.

General lessons

We noted that even if relatively sufficient resources are allocated to individual PDEs, there will be minimal improvements in the individual PDEs compared to improvements that would accrue to all PDEs working collaboratively. For example, in late 1980ôs and early 1990ôs development partners (donors) invested in institutions (PDEs) carrying out functions relating to law enforcement or the administration of justice (which included procurement of supplies, works, and services to the PDEs). The development partners with the respective aided PDEs are: DFID, Uganda Police Force; Danida ï Judiciary; Netherlands - Directorate Public Prosecutions; Germany - Uganda Prison Service; Norway - Uganda Law Society; Austria - Uganda Law Reform Commission. However, support was provided to individual agencies with minimal cooperation between the agencies. The traditional institutional approach with different development partners working with different agencies was DFID, Uganda Police Force; Danida ï Judiciary; Netherlands - Directorate Public Prosecutions; Germany - Uganda Prison Service; Norway - Uganda Law Society; Austria - Uganda Law Reform Commission (Edroma, 2005). The results were not encouraging. While investment and effort was extensive to individual PDEs, the impact was limited.

From our interviews with the respondents, we derive that for the success of collaborative initiatives, the philosophy of the organisation should be directed to collaboration. It is important that each entity in the collaboration has similar philosophies. If the members have substantially different philosophies about the role of the collaboration, such diversity will give rise to a complex and potentially conflicting value set within the collaboration that will limit its effectiveness. Whereas it is logical that each entity will come to collaboration with a set of motives, values, and needs; efforts should be made to progressively make these entities shift their individual philosophies to the general one, shared largely by all. According to the

JLOS reports, the JLOS was conceived with the overall objective of improving the administration of justice through a philosophy of coordinated programme planning, budgeting, purchasing, implementation, monitoring, and evaluation of all sector institutions, along a strategic investment plan of 2001-2006.

Peer reviews and wide consultations across all institutions in the collaboration for the member institutions assist to create a sense of ownership of the decisions. Reports in collaboration go both vertical and horizontal. From our discussion with the JLOS secretariat, we noted that while each JLOS institution remains independent, it keeps interested in knowing what goes on in the other institutions to be able to collaborate with them well. This has been possible because public horizontal institutions have less information to hide from the others. Perhaps in the horizontal collaboration, flat organisational structures might fit better and provide more additional impetus than the hierarchical ones. We note that even in government where the operations mainly follow the hierarchical structure, still the nature of collaboration can adopt flat structure systems. For example, in JLOS, even with top steering committee structure, there are representatives from low level positions, especially the technical personnel. By the same analysis, low structure committee, the technical committee has senior staff. Having a diverse range of positions of staff on collaboration committee reduces bureaucracy since in a meeting; there are almost all the necessary personnel to take a decision.

The frequency with which the inter-institutional meetings take place is important. This makes institutions develop positive feelings towards each other and trust is learned and reinforced over successive iterations of transactions (Powell, 1996). From our discussion with the respondent from Uganda Police Force, we noted that whereas the Steering committee, Technical committee and Working group were to meet once every two months, once in two weeks and once a week respectively, the meetings were more frequent than this at the start of the collaboration, and informality would characterize most of the meetings. We note that frequency of meetings and therefore communication could have partly been responsible for the registered successes of JLOS. This is supported by findings of Hoegl and Wagner (2005) who found that communication frequency and intensity have significant relationship with the performance of interorganisational relationships.

We also derive from our study that for, members in a working group or any meeting of collaboration, it is important to share the goals of the whole collaboration in order to obtain optimal outcomes.

Purchasing related lessons

The success story of the JLOS horizontal purchasing collaboration shows that it is possible for PDEs to start with working together in general tasks and then roll out the strategy to purchasing functions, once the phenomenon has been widely appreciated by all the parties. This is because when it starts in general terms, it is able to involve management for political and strategic support. For example, JLOS attracted the ministers and Chief Justice.

The complex nature of horizontal purchasing collaboration and networking (Barley et al., 1992) requires a shift of focus from institutional interests to sector wide interests, with the shift in applicable resources. This is supported by the case. Individual PDE

priorities and plans should not guide operations of the collaboration. What is needed is a participatory process that originates collaborative priorities and plans. Contributions to support collaborative tasks could be proportional to resources of the individual institutions to ensure fairness. This avoids complaints and feelings of being cheated in the early days of the collaboration. This is when the operations will not reflect individual interests in the process of collaboration.

Increasing awareness of the stakeholders and particularly users of supplies, works, and/or services strengthens checks and balances in the procurement system. Awareness can be improved through media like radios, television, publication of manuals, newsletters, and brochures. This makes stakeholders believe in the collaboration and in turn increase commitment to horizontal purchasing collaboration.

We note that committees of the JLOS are constituted and chaired by top officials of collaborating institutions. This gives the political support and policy guidance. According to the JLOS Report (2006), the high ranking officials in JLOS have made the collaboration politically acceptable to all parties that would query its operations, and has made it to sometimes operate informally especially where urgency has been required. For example, some big procurements can be divided into small lots to meet the authority requirements and their speedy execution, contrary to what the regulations would ordinarily require.

There should be a forum for all the stakeholders of the collaborating entities. This is because some of the stakeholders like end users may not appreciate some of the purchase specifications or other issues. At such a forum, all the stakeholders have an opportunity to debate what they think is not going right. In JLOS, the National Justice Forum resolves all stakeholder issues and links the JLOS to government, which is a major stakeholder in public procurement.

The success stories from the case of JLOS, indicate that horizontal purchasing collaboration in developing countries and in specifically Uganda can work.

Whereas all public procurement entities are presumed to be working towards similar national goals; to achieve fairness, transparency, accountability, and value for money (PPDA Act, 2003), some still want to be seen individually to achieve them. Each unit is accountable to its own stakeholders. From our exploratory study findings (see Chapter 4), there is evidence to show that some PDEs of the considered sample) want to work alone, and achieve the goals individually.

Related to the above, even when all ministry PDEs are expected to be at the same levels in terms of resources and authority, they still differ. They have different budgets and authorities. For example, the Ministry of Finance, Planning and Economic Development gets more than twice the resources of the Ministry of Gender, Labour and Social Welfare. The Ministry of Finance Planning and Economic Development also gives permission to other Ministries on how to spend certain levels of their budgets. Horizontal collaborative collaboration may be hampered by such differences.

It is also important to note that PDEs have incongruent strategic options. For example, the Ministry of Trade, Tourism and Industry would want to spend more in order to

achieve its ministerial objective of ñsellingò Uganda (GOU Report, 2006) whereas the Ministry of Finance, Planning and Economic Development would want to minimize the expenditure, to save funds for other activities (New vision, May 4, 2006), which is the ministryôs strategic orientation. This lack of shared vision by all the government departments can cause problems in the strategic direction of the collaborating PDEs, and affects collaboration in making procurement plans.

Decision making in some cases is not synchronized, which means misrepresenting the interested parties that are affected by the decision. According to the report on performance of Members of Parliament of the Republic of Uganda, few members consult their electorate on suggestions they have towards a certain bill. Likewise according to an interview with the Procurement Officer, Ministry of Lands, Water and Environment, the PPDA does not always consult the various entities on the various directives issued out. The practice of lack of consultation in various other activities in government, other than purchasing, could make PDEs and their staff not attach a lot of value to consultations.

The issue of information asymmetry also applies to Uganda, because some of the PDEs have access to more information than others because of their large size, priority position they occupy in the government or because of having more competent personnel. For example there are major Ministries with the biggest spend. These are the Ministry of Health, Ministry of Defence, Ministry of Energy and Minerals, Ministry of Education and Sports, Ministry of Agriculture, Animal Industry and Fisheries, and Ministry of Lands and Environment. These have access to more training opportunities; their staffs are more experienced and at the rank of Principal Procurement Officers, while all the other entities stop at Senior Procurement Officer or simply Procurement Officer Rank. This brings question marks when it comes to procurement, as such big ones can perceive less benefits from the collaboration (Eliashberg and Michie, 1984).

We agree with Schotanus (2007) that partners may not be motivated to join collaboration because they fear loosing control over the purchasing process; decreased flexibility; expect costs to be high; partners lack support of own agency; lack resources, commitment, and no management support. We also agree that lack of trust in otherôs competencies and because of legal issues. We also find differences in some of the reasons Schotanus advances. We note that disclosure of sensitive information may not be an important reason for fear of horizontal purchasing collaboration in Uganda. This is because the PPDA Act (2003) requires all information to be released at certain times. Though some PDEs have more information than others at different times, after some time all the information becomes known.

We also note that free riding may not be an important motivator for PDEs not to collaborate. We note that horizontal purchasing collaboration initiatives in Uganda are still new. According to the highway matrix analogy by Schotanus and Telgen (2007), free riding typically appears when the level of complexity, control, intensiveness, joint decision making, joint meetings, equal roles, self management, decentrarity and adaptation to specific needs is high (on the influence by all members on group activities dimension) and when the level of specifying, selecting, contracting, evaluating, sharing information, sharing personnel or other resources, shared policy and procedures, benchmarking et cetera (on the number of group activities dimension)

is low. We also note that free riding often occurs when collaborating entities do not know each other well and do not have to continue cooperating in the future. In regard to this, we note that though collaboration in Uganda is still relatively new, the collaborating entities know each other fairly well, and since they are all public entities, they are sure of continued future collaboration. Whereas we also note that number of group activities in Ugandan (and perhaps developing countries) is low, we note that the main indicators on the influence by all members on group activities are low or even lacking. Therefore for starting or newly established horizontal purchasing collaboration initiatives in developing countries and specifically in Uganda, the fear of free riding may not be important. Note that we do not further study the free riding aspect, as new collaborative initiatives have not experienced free riding to derive meaningful responses.

Whereas we agree with Fine and Whitney (1996) that PDEs may not find horizontal purchasing collaboration interesting because of fear of dependence of knowledge, on collaborating PDEs, and therefore reducing capacity for own future challenges, we note that this may not be important for Ugandan PDEs where no single PDE monopolises knowledge, since all procurement officers are relatively new. The fear of dependence on knowledge of other PDEs and reducing opportunities for future challenges may not be an important factor.

A procurement officer from the Ministry of Local Government made this comment:

> *"We collaborate with the other entities, not because they are total experts or consultants, but because they know more than us at the moment. That is why we crosscheck their advice; we do not take it wholesome, because they are only a little better than us"*

From the case, we note that procurement officers in the PDEs are relatively new. This implies that they have not yet got tacit knowledge and monopoly knowledge, sufficient enough for other collaborating PDEs to entirely rely on. According to Walsh and Ungson (1991), the entities knowledge repositories or knowledge stock are found in individual members. This means that PDEs do not entirely trust advice got from others. They have sometimes to crosscheck it, an indication of low levels of trust and dependence.

Whereas we agree with Eliashberg and Michieôs (1984) reason of perception of differences in the anticipated horizontal purchasing collaboration, we do not find Bowersoxôs (1990) reason to be applicable to the developing countries particularly the Ugandan context. Bowersox gives the difference in emphases by different PDEs on different strategies as the reason for organisations not getting interested in horizontal purchasing collaboration. This may not be very relevant for Ugandan PDEs because all PDEs derive their strategies from the main country strategy.

We note that in JLOS PDEs, there are problems of harmonising specifications of items to be purchased. According to the respondents, the disagreements on specifications and other decisions were as a result of some PDEs lack of dependability on other PDEs, competence, and honesty issues. For example MOJCA was not comfortable with specifications originated by MGLSD. MOJCA was also disagreed with the specification of purchase of heavy duty printing machinery done by the ULRC PDE citing incompetence as the reason for the disagreement. We note that the JLOS collaboration is relatively more developed than others.

The JLOS case shows that when the PDEs collaborated, efficiency in procurement processes improved. There is an improvement in coordination, communication and cooperation among JLOS institutions. Consensus has been built in the PDEs, which originally had independent interests and priorities, to now working together to realise common goals. Each PDE eventually has eventually realised more than it could, had it operated separately. This indicates positive correlation between the level of collaboration and benefits for the PDEs involved under the JLOS circumstances.

From the JLOS case, we note that if resources are available to individual PDEs, working individually will result into minimal outcomes. This is demonstrated in the example where donors invested in JLOS members individually. The results did not exceed 50% of the expected targets (SWAP Secretariat, 2007). Subsequently, joined similar donor support to JLOS resulted into significant benefits. We note that under the JLOS circumstances there is a positive relationship between collaboration and benefits for PDEs.

5.10 Level of collaboration

By examining issues with JLOS and considering the results of our exploratory studies, we get insights to consider the level of collaboration and the benefits of collaboration.

We rely on the literature to measure the level of horizontal purchasing collaboration. Collaboration implies an attitude characterized by joint effort, team spirit, and mutual cooperation, which is expressed in the form of common actions (Childers and Ruekert, 1982; Frazier, 1983). Anderson and Narus (1990) also agree with the position that collaboration can be defined and operationalised as activities or actions taken by one or both exchange partners that promote individual and mutual benefits.
We measure the level of collaboration in a similar way as Rozenmeijer (2000) did in his study; by examining its degree/intensity. Rozenmeijer also studied horizontal purchasing collaboration through how intra-company cooperation between two or more business units can cause purchasing synergy.

We measure level of horizontal purchasing collaboration instead of the success, because horizontal purchasing collaboration initiatives in developing countries and in Uganda are relatively new; there has been no sufficient time to create notable successes. Whereas we can measure some of the benefits of collaboration, which have an important influence on the perceived success, all the possible benefits may not be fully measured, given the fact that collaboration in developing countries is still relatively new to realise all the benefits of collaboration.

While we acknowledge the collaboration measurement options may include operational collaboration which is geared towards transaction efficiency improvements for example bundling volumes to reduce operational costs (Vereecke and Muylle, 2006), we note that collaboration in Ugandan PDEs has started and is mainly at the medium and strategic level with more emphasis on shared or matched objectives. Through the current joint actions; mainly sharing information and decision synchronisation, PDEs have not yet gone beyond passive information exchange to engage in proactive collaboration (Holweg et al., 2005; Jagdev and Thoben, 2001) like bundling volumes rather than mere sharing of information.

We also note that measurement of the level of collaboration is a subject of debate. Some studies have used quantified and objective measures like profitability (e.g. Taylor, 2006), bundling of volumes (e.g. Schotanus, 2007). However these measures are often difficult to obtain due to their commercial sensitivity (Taylor, 2006) or due to non availability. In the developing countries like the Ugandan case, the PDEs have not yet reached an extent of evaluating such measures, since the collaborations are still in the initial stage. Consequently, the method which can relevantly measure the level of collaboration is to employ managerial perceptions of intensity to which related activities of collaboration have been met (Cullen et al., 2000, Geringer and Herbert, 1991; Saxton, 1997).

We examine the degree of interaction among the collaborating PDEs in the various purchasing activities. We also apply Simatupang and Sridharan (2005)ôs list of collaboration activities to exhaust the activities upon which we test the level of collaboration. Table 5.2 presents this.

Table 5.2 Level of collaboration

Author	Contribution
Rozenmeijer (2000)	Information sharing - This is disseminating timely and relevant information to other partners, for informed decision making. Joint initiatives rely on clear expectations, with all parties being fully informed of what is expected of them. Sharing of information is important even from the cost perspective because it replaces unnecessary costs (Lee and Whang, 2001). The shared information if available to all parties will increase knowledge about each others plans, which harmonises operations (Simatupang and Sridharan, 2002; Stefansson, 2002). In purchasing, such information includes: procurement plans, prequalification lists, evaluation criteria, information on suppliers, needs specifications, prices, inventory levels, ordering and after care information.
Simatupang and Sridharan (2005)	Decision synchronisation - This is where decisions are taken jointly. These could be in operational and strategic contexts. Areas of collaboration include, specification, contracting plans, level of purchases, order levels, monitoring systems, and after delivery. Level of incentive alignment ï where the benefits or risks that accrue from collaboration are shared by participating members, and if there are joint investments

Relationship between the level of collaboration and benefits of collaboration

As literature supports (Johnson, 1999; Nollet and Beaulieu, 2005; Schotanus, 2007; Tella and Virolainen, 2005), collaboration provides concrete benefits and results. When people come together in a horizontal purchasing collaboration, they get used to each other and get willing to assist each other. Horizontal purchasing collaboration makes use of expertise across the collaborating PDEs to leverage volumes and secure benefits from economies of scale through harnessing combined purchasing power. In public purchasing in Uganda, with PDEs at similar levels in authority and mandate, there is a lot of duplication of same processes/tasks. Therefore combining them in horizontal purchasing collaboration would reduce costs of operation, time spent in individual processes and maximise use of systems that would otherwise remain idle because of individual sub optimal use. Horizontal purchasing collaboration removes boundaries between PDEs (Naylor et al, 1999; Romano, 2003), which makes all purchasing procedures standardised and less costly. Information sharing by PDEs is crucial because most PDEs do not have adequate information, especially on prices, reliable suppliers, availability of alternative products/services et cetera. Information

sharing will benefit PDEs in the collaboration because they will be able to get better deals.

Horizontal purchasing collaboration ensures reduction of transaction costs through sharing of information on purchasing operations. Once entities collaborate, one common way of working can be established, uniform purchasing procedures are put in process, sharing best practices across all entities, common training, ensures economies of process. Moreover, the standardisation of requirements, synchronising specification and sharing supplies create economies of scale to collaborating entities (Arnold, 1997; McCarthey and Golicic, 2002; Rozenmeijer, 2000).
We therefore hypothesise:

H5a: The higher the level of collaboration, the higher the benefits of horizontal purchasing collaboration for an individual entity.

We note that the level of collaboration in Uganda is not yet high. This mainly results from their relative new existence time they have been operating. For example, expertise is not an important factor, since most procurement officers are new and do not have sufficient experience and qualifications (CIPS Uganda 2008). This reduces the level of benefits. We also note that not all the processes and tasks of the procurement cycle are carried out jointly. Activities like purchase requisitions, choice of procurement method (e.g., whether to use domestic bidding or international bidding), award of contract, and communication between the entities and suppliers are carried out by individual PDEs. This reduces the benefits of horizontal purchasing collaboration. From the discussion above, we hypothesize:

H5b: The level of horizontal collaboration for individual Ugandan PDEs is low.

5.11 Benefits for individual entities

According to Aylesworth (2003), the level of horizontal collaboration influences the benefits realised from collaborative initiatives. Based on this, we note that the Ugandan collaborative initiatives are largely local networks and voluntary cooperatives, which are informally organised. We also note that collaborative initiatives are relatively new, thus reducing the tacit knowledge and experience required to raise the benefits of collaboration. We also note that the level of information sharing, is low, and decisions are not largely synchronised. This further leads to low level of standardisation and low level of common practices. We hypothesise:

H6b: The level of benefits for individual entities in Ugandan PDEs is low.

5.12 Limitations

We acknowledge the weaknesses inherent with the case study design. Whereas the case study design is an acceptable qualitative study design (Eisenhardt, 1989), we note that our conclusions may be limited to analytical rather than statistical dimensions (Yin, 1994). This reduces the ability to generalise the findings to other collaborative initiatives.

5.13 Conclusions

From Chapters 3, 4 and 5, and the tentative model (Figure 3.4), we derive relationships which we indicate in our conceptual model below.

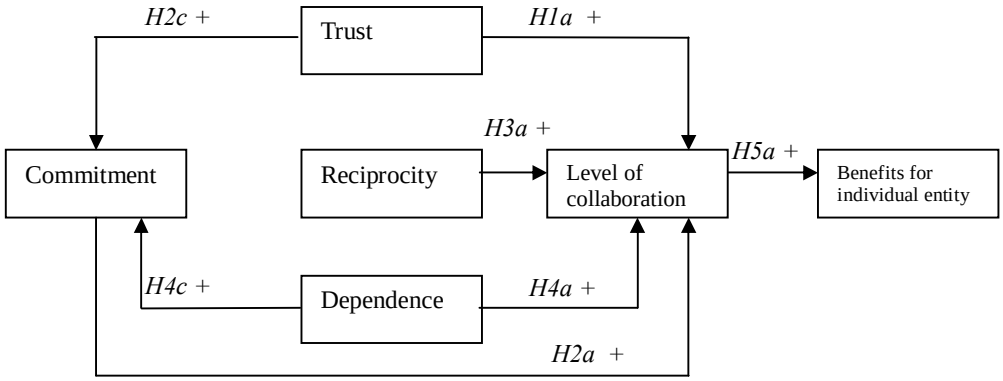


Fig. 5.3 Conceptual model

Chapter 6 – The survey

6.1 Introduction

In Chapter 3, we reviewed the existing literature to set the theoretical base of the research. We reviewed constructs and various relationships. We also found some theoretical gaps and posed hypotheses in later chapters. In this chapter, we extend the knowledge gathered over the previous chapters (especially the literature review and the exploratory studies) and carry out a survey to test the hypotheses posed.

In this chapter, we first discuss the specific objective of the survey: *understanding behavioural aspects in horizontal purchasing collaboration.* Next, we include the methodology used to achieve our survey goal. In this, we include the justification for the choice of a survey design and how it fits into our goal. We show how we analysed the data and how we ensured credibility of our findings. In order to discover simple patterns of the items used, we subsequently carry out a factor analysis. We then present the results of the hypotheses testing, by use of descriptive and correlational statistics. We next conduct a hierarchical regression analysis and present a model with results. We give limitations of the survey and end with a discussion of the practical implications.

We include Figure 6.1 to show the position of Chapter 6 in the outline.

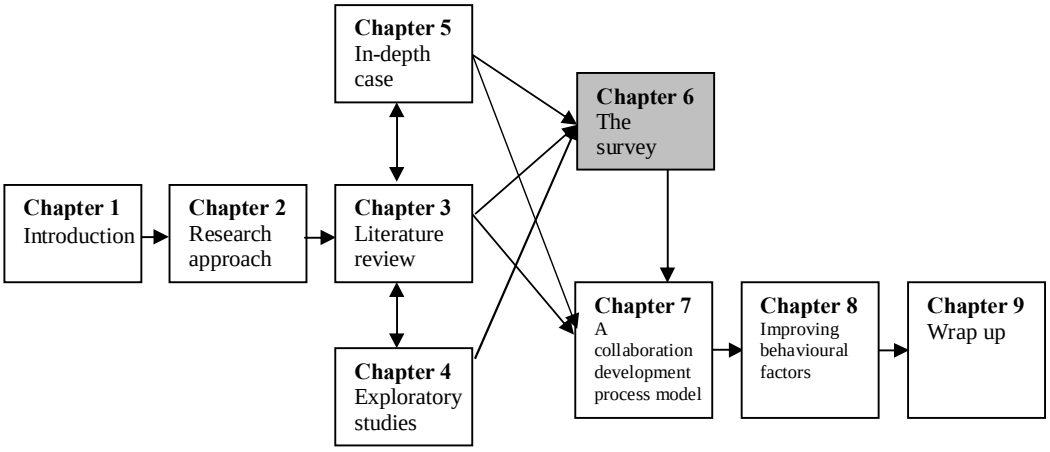


Fig. 6.1 Research outline

6.2 Objective

The main objective of the survey is to test the hypotheses posed from knowledge gaps identified in the previous chapters. This is derived from our main focus of the study: *understanding why and how the behavioural aspects influence horizontal purchasing collaboration in the developing countries and specifically Uganda.* It is important to make it clear that for simplicity and parsimony purposes, we aimed at trust, commitment, reciprocity, and dependence variables, since most research done in the relationship area identify them as important aspects.

From the previous chapters, we came up with a model (see section 5.13). We appreciate that such a model exists and works in the developed world. However, we want to find out whether the conceptual model also works in the developing world, because outcomes of behavioural factors in developing countries seem to be different from outcomes in the developed world (Atkinson and Butcher, 2003; Gemunden, 1997; Meyer, 1997; Sommer et al., 1996). We aimed at finding out the relationships between these factors.

We summarise the hypotheses from the previous chapters below.

H1a: The existence of trust leads to a higher level of collaboration in the early phases of horizontal purchasing collaboratives.

H2a: The existence of commitment leads to a higher level of collaboration.
H2c: The existence of trust leads to higher level of commitment.

H3a: The existence of reciprocity leads to a higher level of collaboration.

H4a: The existence of dependence leads to a high level of collaboration.
H4c: The existence of dependence leads to higher level of commitment

H5a: The higher the level of collaboration, the higher the benefits of horizontal purchasing collaboration for an individual entity.

We also aimed at knowing the level of behavioural dimensions in horizontal purchasing collaboratives in PDEs. From previous chapters, we developed and used the following hypotheses, which are based on the major assumption that if the conceptual model works for developing countries, then it works to a lesser extent than in the developed world, because the levels of trust, commitment, reciprocity, and dependence are lower in developing countries.

H1b: The level of trust between Ugandan PDE's in horizontal purchasing collaboratives is low.

H2b: The level of commitment of PDE's in Uganda in horizontal purchasing collaboratives is low.

H3b: The level of reciprocity among PDEs in Uganda in horizontal purchasing collaboratives is low.

H4b: The level of dependency among PDEs in Uganda in horizontal purchasing collaboratives is low.

H5b: The level of horizontal collaboration for individual Ugandan PDEs is low.

H6b: The level of benefits for individual Ugandan PDEs is low.

6.3 Method

Relevance of the survey
In the previous chapters, we formulated hypotheses. To test these hypotheses, we use a survey. We used the survey design because of several reasons. A survey is best suited when we want to get a snapshot of the current state of affairs (Janes, 2001). We first of all acknowledge the fact that purchasing research is limited in developing countries and specifically in Uganda. To the best of our knowledge, apart from MBA

and M.A theses works of Kalinzi (2005) and Tumwine (2006) respectively, there is no published work done in the area of collaborative purchasing in Uganda. Because of the nature of the current state of purchasing activities in Uganda (which came into existence in 2003), we aimed at getting knowledge on the current state of purchasing activities in the country.

Surveys are also good for describing a large population. This matches with our design in our research, of considering all the central government PDEs. The survey reduces the observer effect: asking questions makes people think about a subject in a new way and can provoke a different answer than a friend or colleague might get (Collins and Cordon, 1997). To this extent, we aimed at getting new insights into the seemingly new horizontal purchasing collaboration strategy.

Population and sample

The study population includes all the PDEs in the Ugandan public sector. A PDE, which we refer to as ñentityò, is our unit of analysis. Central government PDEs came into operation in the year 2003, compared to the recently (2007) operationalised local government PDEs, and have had some time to carry out horizontal purchasing collaboration activities. We therefore left out the local government entities in our sample.

In the survey, the population of study is similar to the one used in Chapter 4 (exploratory study), since these are the same entities that exist in Uganda. However, the studies were carried out at different times. In Table 6.1, we show the population entities, the sample selected, and the sampling method.

Table 6.1 Study population and sample

Category	Number of entities	Sample	Sampling method
Central Government			
Commission	14	14	Census
Hospital	12	12	Census
Ministry	26	26	Census
Parastatal	64	64	Census
Local Government			
Districts	76	0	Left out, as they were relatively new
Urban areas	79	0	Left out, as they were relatively new
TOTAL	**271**	**116**	

Most of the PDEs are located around Kampala, which enhanced the data collection process. Note that since we did not have complete information at the beginning of our field work on which specific PDEs have experiences in horizontal purchasing collaboration, we set out to consider all the PDEs, but we subsequently dropped nine PDEs which we found lacking such experience during fieldwork phase.

Response

Our respondents were officers in PDEs, who deal with purchasing activities. We considered all the purchasing related employees to increase the validity of our statistical analyses. These include procurement officers, members of contracts committees, finance officers that deal with purchasing activities, and accounting

officers. In Appendix G, we show the involvement of the considered categories of respondents in purchasing tasks and thus justify their choice.

Operationalisation and measurement of variables
In the previous chapters, we presented various foundations of the variables we are examining. In this section, we show how these variables were operationalised.

Independent variables
In the table below, we show how we measured the behavioural variables (trust, commitment, dependence, and reciprocity). We used different literature sources to ensure construct validity in our measurement. We present the measurement of the independent variables in Table 6.2.

Table 6.2 Measurement of independent variables

Variable	Key literature bases	Items in measurement scale/issues to examine
Trust	Swan and Trawick (1987)	We examine dependability/reliability, honesty, competence, orientation, and friendliness among PDEs
Commitment	Brown et al. (1995); Gilliland and Bello (2002)	We examine instrumental, normative, and affective commitment about horizontal purchasing collaboration amongst PDEs
Dependence	Hammarkvist et al. (1982); Mattsson (1999)	We examine time, knowledge, social, economic, technical, market, and IT dependence of PDEs
Reciprocity	Sullivan et al. (2003)	We examine equivalence, immediacy, and self interest

Horizontal purchasing collaboration
We measured horizontal purchasing collaboration as a process, in terms of its activities. We considered the level of collaboration by testing the frequency at which activities of collaboration are done (based on Arnold, 1997; Rozenmeijer, 2000; Ryan and Walsh, 2004; Simatupang and Sridharan, 2004a). Various publications converge on two main measurement dimensions, as shown in Table 6.3.

Table 6.3 Measurement of horizontal purchasing collaboration

Key literature bases	Items in measurement scale/issues to examine
Arnold (1997); Rozenmeijer (2000); Ryan and Walsh (2004); Simatupang and Sridharan (2004a)	*Information sharing/economies of information*: We examine information on suppliers, needs specifications, prices, inventory levels, ordering, and after care information. We also consider information on new technologies, market developments, internal users, and spending behaviour
Arnold (1997); Rozenmeijer (2000); Simatupang and Sridharan (2004a)	*Decision synchronisation/economies of process*: We examine joint decision taking in issues of specification, contracting plans, level of purchases, order levels, monitoring systems, and after delivery. We examine the existence of state of the art purchasing process knowledge across all steps of purchasing, by common way of working, uniform purchasing procedures, sharing best practices, common training and education, and sharing suppliers. We also consider the level of incentive alignment ï where the benefits or risks that accrue from collaboration are shared by participating members, and if there are joint investments.

Benefits of collaboration
Collaboration benefits have been classified by several scholars (Essig, 1999b; Kauffman, 1993; Rozenmeijer, 2000; Sheperd, 1985; Van Weele, 2000). We use a

combination of relevant measurement items from these measures in our work. Based on Van Weele (2000), purchasing benefits centre on the extent to which by choosing a certain action, a previously established goal or standard is being met. Applied to collaborative purchasing, this means among other things that effectiveness and/or efficiency can be achieved as a result of better use of resources, knowledge and scale (Essig, 1999b; Kauffman, 1983; Sheperd, 1985), sharing information and more accurate information (Nollet and Beaulieu, 2005; Schotanus, 2007; Tella and Virolainen, 2005), sharing resources (Schotanus, 2007), standardisation of requirements, and sharing suppliers across participating entities (Johnson, 1999).

The main point from these references is that horizontal purchasing collaboration process or activities may lead to collaborative outcomes. We therefore examine the existence of these outcomes, which is empirical evidence of the existence of horizontal purchasing collaboration (other factors are held constant) to have a much deeper understanding of these outcomes. We present the outcomes (benefits) of an individual entity in Table 6.4.

Table 6.4 Outcomes (benefits) of individual entity

Key literature bases	Items in measurement scale / issues to examine
McCarthy and Golicic (2002); Quinn (1999); Sheperd (1985); Sin et al. (2005); Van Weele (2000)	We examine sharing of information and resources, existence of state of art purchasing process, standardisation of requirements and sharing of suppliers, sharing human resources and improved procedures.

Data collection and procedure

We used a researcher-administered questionnaire to collect data. This enabled face to face interaction between researcher personnel and respondents, which further improved the quality and response rate of the survey. Out of 107 PDEs in our sample, (we removed nine PDEs) we received responses from 63, a response rate of about 59%. We assured the respondents of confidentiality and feedback of the survey results.

We used a five point Likert scale ranging from 1 (strongly disagree), 2 (disagree), 3 (not sure), 4 (agree) to 5 (strongly agree). All odd Likert point scales have a neutral or not sure choice. As opposed to the even number response scale, where the respondent must decide whether to chose the agree side or disagree side (which may be against his/her will), we used an odd scale because it allows free expression of choice. Behavioural variables have questions which may be perceived neutral by respondents, so they need to be given all possible alternatives. We selected a five point scale because in our view, with a three point scale, the respondent has limited options and you risk loosing nuances. On the other hand, with a seven point scale (or even more) the difference between the choices is difficult to understand. The seven point scales are also used when very small differences are expected. We do not expect this, so we do not use a seven point scale.

In order to refine the questionnaire and ensure validity and reliability of the research instruments, we carried out a pilot test mainly to ensure content validity (Mitchell, 1996; Polit et al., 2001; Teijlingen et al., 2001). We pre-tested the questionnaire on a focus group (who were practicing procurement officers in the PDEs and at the same time had research skills since they were students of Master of Science in Purchasing

and Supply Chain Management at Makerere University) and made some adjustments before the final questionnaire was used. This focus group was similar to the final population of our sample. Based on Saunders et al. (2003) guidelines on the number of respondents for a pilot study (size of study, time and money resources available, and having largely used a previously used standardised questionnaire), we used 13 respondents. We thought that since all the respondents are mainly professionals, doing similar work, there would be no major variations in the populations. This number was above ten, which is recommended for pilots of such questionnaire designs (Fink, 1995).

Data analysis

Completeness and inconsistencies

We checked the data for completeness and inconsistencies, and removed incomplete answers list wise. Where there were some questions that were not filled by the respondent, we referred back to the entity for an answer.

Credibility of research findings

As expressed by Raimond (1993), we need to subject our work to the ñhow do I know?ò test: ñé ..will the evidence and my conclusions stand up to the closest scrutiny?ò Rogers (1961, cited by Raimond 1993) captured it as:

> *"Scientific methodology needs to be seen for what it truly is, a way of preventing me from deceiving myself in regard to my creatively formed subjective hunches which have developed out of the relationship between me and my material"*

In regard to the above argument, we pay attention to reliability and validity.

Reliability of the test

A reliable test is one that yields stable results, whatever it measures, it is consistent. A reliable test accrues from the use of reliable variable scales. In Table 6.5, we use reliability considerations developed by Easterby-Smith et al. (2002) and show how we take care of these considerations in our research.

Table 6.5 Reliability considerations (Easterby-Smith et al., 2002)

Consideration	**Our design**
Will the measures yield the same results on other occasions?	We carefully used a representative sample.
Will similar observations be reached by other observers?	Though we made adjustments to suit our study, we largely adopted research instruments that have generally been applied. We also consulted practitioners and other experts in the testing stage.
Is there transparency in how sense was made from the data?	The same researcher(s) who collected data interpreted it. Experts were also consulted on this.

Reliability of the instruments

In addition to the considerations mentioned in Table 6.5, it is important to ensure that our measuring instruments are consistent. The reliability of instruments can be obtained by using any of the following tests: test-retest method, the alternative form method, and the internal consistency method (Nunnaly, 1978; Peter, 1979). Since literature offers options of any of the tests, we used the test-retest and the internal consistency test. Below, we justify their relevance:

Test-retest reliability

With our pilot study, we carried out the test-retest reliability (based on Field, 2005) by giving the same instrument to each sampled procurement officer, two weeks after filling it, and the scores were 98% similar. This confirmed that there was no influence of anxiety and emotions while filling the questionnaire at both points in time.

The internal consistency test

There are several tests for internal consistency: Guttman, parallel, strict parallel, split half, and Cronbach alpha (1970). The Chronbachôs alpha, which we adopted, is one of the most commonly used measures of reliability. It is a useful test because it is based on the average correlation of all items in the test. Scholars in collaboration have commonly used this test. Besides, it provides a direct estimate of the mean of all possible split-half tests. It allowed us to identify two items (the variance within the item, and the covariance between a particular item and any other item on the scale), that negatively affect the overall reliability of the dependence scale. We present the results of the internal consistency test of our pilot study in Table 6.6.

Table 6.6 Cronbach Alpha values

Variable/construct	No. of items	Cronbach Alpha
Instrumental commitment	2	.8193
Normative commitment	5*	.8162
Affective commitment	3	.9138
Trust	10	.8629
Dependence	8	.8487
Reciprocity	6	.8447
Information sharing	7	.8471
Decision synchronization	6	.7824
Incentive alignment	3	.7340
Benefits for individual entity	6	.8374

Note: *n = 13*

*The item o*ur attachment to PDEs we collaborate with is mainly based on the similarity of our values had a low correlation with the others, and affected reliability. On further discussions with the focus group, we changed it to read o*ur relationship with PDEs we collaborate with is mainly based on the similarity of our values.*

After the above mentioned adjustment all the Cronbach alpha coefficients were above .7340, which is above the .70 accept/reject standard (Afifi and Elashoff, 1966; Cronbach, 1951; Nunnaly, 1978). This is strengthened by the fact that the instrument was tested in a new environment, in which even a coefficient of 0.6 would be acceptable (Churchill and Peter, 1984; Nunnally, 1967).

Validity

In this section, we aim at checking whether our constructs measure what they purport to measure. We use the construct validity test. Construct validity refers to the extent to which the measurement questions actually measure the presence of those constructs the questions intended to measure (Saunders et al., 2007). Saunders et al. recommend the use of construct validity when referring to constructs such as attitude scales. We find it very relevant because our scale seeks attitudes of respondents.

We wanted to know the pattern of inter-correlations among item measures. Correlations between theoretically similar measures are expected to be high. We took a correlation of above .5 (based on Stevens, 1992) as the cut off point. Note that based on Field (2005), there are two approaches to locating underlying dimensions of a data

set: factor analysis and principal component analysis. We used the principal component analysis, by the varimax rotation method to extract the most important factors. The principal component analysis method is preferred to factor analysis, since according to Field (2005), the principal component analysis is concerned only with establishing which linear components exist within the data and how a particular variable might contribute to that component. Field also argues that the principal component analysis is a psychometrically sound procedure. Moreover, it is a better measure than others in our research where variables are less than twenty (Stevens, 1992). We preferred the varimax method to quartimax and equamax because it maximizes the dispersion of loadings within factors and therefore it loads a smaller number of variables highly onto each factor resulting in more interpretable clusters of factors. Field (2005) further suggests use of the varimax method for a first analysis, because it is a good general approach that simplifies the interpretation of factors.

From our pilot study findings, all the constructs under study explained the variables they represent by well above the .5 cut off point. We therefore got scientific base that the items were measuring what they are meant to measure.

6.4 Results and discussion

Testing assumptions

In this section, we aim at checking whether certain assumptions for parametric tests are met, before applying these tests. We carry out the following necessary tests based on Field (2005): normality test, linearity test, multicollinearity, homogeneity, heterosdasciticity, and auto correlation.

Normality test

We test for normality using frequency distributions and plots. We first use the descriptive statistics to establish the skewness and kurtosis. The skewness and kurtosis were used to establish normality based on the range of -2 to +2 as a normal distribution. According to the results in Table 6.7 below, skewness and kurtosis are in the range of -2 and +2. This implies that the data is normally distributed.

Table 6.7 Descriptive statistics

Variable				Std.	Skewness		Kurtosis	
	Min.	Max.	Mean	dev.	Stat.	Std. error	Stat.	Std. error
Instrumental commitment	1.00	5.00	3.01	1.262	.062	.302	-1.335	.595
Normative commitment	2.00	5.00	3.57	.802	-.119	.302	-1.161	.595
Affective commitment	.00	5.00	3.07	1.184	-.135	.302	-.920	.595
Commitment	1.69	5.00	3.22	.878	.259	.302	-.996	.595
Trust	1.56	4.89	3.44	.812	-.484	.302	-.243	.595
Dependence	1.38	4.63	2.91	.930	.237	.302	-1.078	.595
Reciprocity	1.50	4.83	3.14	.858	.084	.302	-.481	.595
Information sharing	1.00	4.71	3.19	.927	-.191	.302	-.330	.595
Decision synchronization	1.50	4.33	3.06	.808	-.329	.302	-.990	.595
Incentive alignment	1.00	3.67	1.79	.729	.676	.302	-.399	.595
Collaboration	1.31	3.98	2.68	.606	-.227	.302	.143	.595
Benefit	1.83	4.67	3.50	.620	-.899	.302	.983	.595

Note: *n = 63 for all variables*

Normal probability plots
We also used normal probability plots to test for normality. Normality distribution for all study variables indicate that most of the data points are along a straight line, an indication of normal distribution.

Linearity test
According to the zero order correlation matrix (Table 6.17) and F statistic and Sig F in the regression model (Table 6.19), trust, commitment, dependence, reciprocity, and collaboration are linearly related to benefits of individual entity.

Multicollinearity
Multicollinearity exists when there is a strong correlation between predictors in a regression model (Field, 2005). Multicollinearity increases the probability that a good predictor of the outcome will be found non significant and rejected from the model, limits the size of *R* (a measure of the multiple correlation between the predictors and the outcome), makes it difficult to access the individual importance of a predictor, and increases the variances of the regression coefficients, resulting in unstable predictor equations.

We used the Durbin-Watson test to check the Variance Inflation Factor (VIF) as a collinearity diagnostic, to show whether each of the predictors; trust, commitment, reciprocity, and dependence, has a strong linear relationship with the other predictors. Based on Myers (1990) cut off rule of a VIF value of 10 at which to worry, we conclude that there is no multicollinearity in our data since all VIF figures are below 3 (see Table 6.19). We also used the tolerance statistic. Based on Menard (1995) cut of rule of existence of multicollinearity with figures below .2, we still do not find multicollinearity since all our values are .387 and above.

Homogeneity
Homogeneity of variance is another assumption we tested to ensure suitability of our further hierarchical tests. Homogeneity assumes that the variance of one variable should be stable at all levels of other variables (Field, 2005). In studies that use correlation analysis and regression models, the Leveneôs test is mostly used. We used Leveneôs test to test if the differences between the variances were zero. As shown in Table 6.8, Leveneôs statistics for each of the variables is non significant (i.e., $p > .05$) meaning that the difference between the variances is (almost) zero.

Table 6.8 Test of homogeneity of variables

Variable	Levene statistic	df1	df2	Sig.
Benefits	1.345	9	37	.213
Collaboration	1.718	9	37	.120
Dependence	.721	9	37	.687
Reciprocity	2.696	9	37	.076
Trust	5.633	9	37	.077
Commitment	1.488	9	37	.189

Heteroscedasticity
Heterosdasticity occurs when the residues at each level of a predictor variable have unequal variances. If the plot of regression standardized predicted value against regression standardized residual looks like a random array of dots evenly dispersed

around zero, and the graph does not funnel out, then there is no heterosdasticity (there is homodasticity). From our analysis, the regression standardized residual and regression standardized predicted value plot indicated a distribution funning in wards, which is an indication of homoscedasticity as opposed to heteroscedasticity.

Auto correlation

Auto correlation is a situation when for two observations, the residual terms are independent (Field, 2005). According to Durbin and Watson (1951), there is no auto correlation when two adjacent residuals have a test statistic between 0 and 4 and if the Durbin-Watson value is greater than the adjusted value. Our results (see also Table 6.19) show s Durbin-Watson value of 1.463 (i.e. between 0 and 4). This is greater than the adjusted value of .498 implying no serial correlation.

Factor analysis

Factor analysis seeks to discover simple patterns of relationships among the variables. Since we operationalised our variables into several dimensions and used several questions that exhaust these dimensions, we carried out a factor analysis to identify groups of variables and see how they are related to each other. According to Field (2005) and Feisel (2009), behavioural and exploratory studies such as ours should use the explanatory factor analysis to understand the structure of the variables and know which of the questions cause more variability in the variables they measure. This method has been supported by recent scholars in collaboration (Brown, 2008; Meunier-FitzHugh and Piercy, 2007; Simatupang and Sridharan, 2005).

Social variables like trust, commitment, reciprocity, and dependence are likely to have unobservable characteristics. These are internal attributes and have effects that are reflected when one obtains measures of surface attributes (Tucker and MacCallum, 1997). Tucker and MacCallum in support of factor analysis, argue that these internal attributes need to be analysed because they account for observed variation and covariation across a wide range of surface attributes.

For the factor analysis, we use the Kaiser (1960) criterion, which requires only those factors with Eigen values above 1 to be picked. This is because according to Kaiser, these are the ones with substantial amount of variation. However, we note that other scholars like Jolliffe (1972, 1986) lower the cut off to .7. But since research has shown that Kaiserôs criterion is accurate when the number of variables is less than 30 (Field, 2005) like in our research, we use the same criterion.

For each variable, we used the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser, 1970) which tests whether factor analysis will yield distinct and reliable factors. The test varies between 0 and 1. Bartlettôs tests were also done, to check for sphericity, i.e. whether a variance-covariance matrix is proportional to an identity matrix. The Bartlletôs test has been recommended in factor analysis (Field, 2005) since it checks similarity of group variances and that the dependent variables are not correlated. According to Field (2005), for suitability of factor analysis, the results of the Bartlletôs test should be significant i.e. sig. should be less than .5. In Table 6.9 below, we give the interpretation of the test based on Hutcheson and Sofroniou (1999).

Table 6.9 Interpretation of correlation

Range	Interpretation
0	There is diffusion in the pattern of correlations, so factor analysis not appropriate
Close to 1	Patterns of correlations are relatively compact, so factor analysis will yield distinct and reliable factors
.5 ï .7	Mediocre results
.7 ï .8	Good results
.8 ï .9	Great results
Above .9	Superb results

For all variables discussed in the next sections, the KMO test indicates values that will give good to great results (Hutcheson and Sofroniou, 1999). The Bartlettôs test for sphericity is significant for all variables (sig. 000). Therefore there are some relationships between the variables.

Trust

The trust factor was extracted from ten items explaining 61% of the total variance of trust. Five items with factor loadings of more than .70 were finally extracted (see Table 6.10). This implies that the five items strongly measured the trust variable.

Table 6.10 Trust component matrix

Measure	Value
The PDEs we collaborate with always keep their promises.	.852
We always receive a good response from the PDEs we collaborate with.	.843
The PDEs we collaborate with are always obliging.	.843
The PDEs we collaborate with are always polite.	.815
The PDEs we collaborate with always inform us immediately if problems occur in their purchasing operations that may have an impact on the collaboration	.723
Eigen value	**3.721**
% of variance	**61.344**

Commitment

Three constructs of commitment were extracted from ten items explaining 75% of the total variance of commitment. Affective commitment (pride in the collaboration) explained more of commitment followed by normative commitment (based on strong values and beliefs) and instrumental commitment (fear of costs of switching off from current collaboration). Our results show that affective commitment, more than instrumental commitment and normative commitment cause variability in commitment. This could be because pride is more important in the initial phases of collaboration (which applies to our sample) compared to the fear of switching costs; which would be minimal at the initial stage and the not yet evolved values and beliefs, as we find relevant for developing countries.

Table 6.11 Commitment rotated component matrix[a]

Measure	Component		
	1	2	3
Affective commitment			
We feel that the PDEs we collaborate with, view us as being an important team member rather than just being another PDE.	.917		
We are proud to tell others that we are associated with the other PDEs.	.895		
We take up our collaboration with other PDEs, to friends and acquaintances, as a great relationship to be connected with.	.847		
Normative commitment			
Our relationship with PDES we collaborate with is mainly based on the similarity of our values.		.861	
The reason we work with other PDEs is because of what they stand for, their values.		.807	
If the values for PDEs we collaborate with were different, we would not be as attached to them.		.684	
Our procurement values, and those of the PDEs we collaborate with are becoming more similar.		.512	
Instrumental commitment			
We need to keep working with the other PDEs since leaving would create hardship for our organisation.			.911
Changing the horizontal collaborative purchasing with other PDEs now would be too disruptive for our activities, so we continue to work with them.			.764
Eigen Values	**3.403**	**2.318**	**1.743**
% of variance	**34.034**	**23.175**	**17.431**

[a] Rotation converged in 5 iterations.

Dependence

The dependence factor was extracted from eight items explaining 51% of the total variance of dependence. Final extraction showed six items with factor loadings of over .50 on the dependence. This implies that six items significantly measured the dependency variable (see also Table 6.12).

The item O*ur PDE has a close relationship with the PDEs we collaborate with*, has the highest coefficient (.899). This means that it causes more variability in the variable dependence more than other items that measure dependence. We argue that developing a close relationship may cause more collaborating entities to be dependent on each other. On the other hand, the item *Our PDE's relationship with the collaborating PDEs is regulated in a written contract* has the lowest coefficient (.598). This means that it causes lesser variability in the variable dependence than the other considered items. We argue that contracts do not have a major impact in causing dependence between entities in collaborative initiatives. This matches with Anheier and Kendall (2000) finding that voluntary participation in collaboration is more necessary than contractual obligations.

Table 6.12 Dependence component matrix

Measure	Value
Our PDE has a close relationship with the PDEs we collaborate with.	.899
Our PDEôs activities are developed through the knowledge that is interchanged with the collaborating PDEs.	.879
Our PDEôs activities have a strong time based synchronisation with the other collaborating PDEsô activities.	.867
Our PDE strives to maintain a common information technology standard of hard and soft ware with the collaborating PDEs.	.824
Collaborating PDEs influence our PDEôs reputation	.779
Our PDEôs relationship with the collaborating PDEs is regulated in a written contract.	.598
Eigen value	**4.074**
% of variance	**50.929**

Reciprocity

The reciprocity variable was extracted from six items explaining 61% of the total variance. Five items with factor loadings of over .30 significantly measured the reciprocity variable. The item *Our PDE regards 'never forget a good turn' as our motto* has a coefficient of .900, an indication that it causes more variability in the variable reciprocity. The item *Even if we don't anticipate immediate benefit, we offer our service to the collaborating PDEs* has the lowest coefficient of .442. We argue that for new horizontal purchasing collaboration initiatives, recalling good acts causes more reciprocity than anticipating future benefits. This may be true because for starting initiatives, there are no immediate benefits to evaluate.

Table 6.13 Reciprocity component matrix

Measure	Value
Our PDE regards ónever forget a good turnô as our motto.	.900
If the PDEs we collaborate with give assistance when my PDE had difficulties, then I would be responsible for returning its kindness.	.838
We keep our promises to each other in any situation.	.829
Even if we donôt anticipate immediate benefit, we offer our service to the collaborating PDEs.	.442
We donôt investigate discrepancies in performance of activities we are involved in with the collaborating PDEs.	.454
Eigen value	**2.446**
% of variance	**60.767**

Level of collaboration

Three factors with Eigen values greater than 1 were extracted from 16 items explaining 68% of total variance of the level of collaboration. Eleven items with factor loadings of over .40 remained in the final rotated matrix. This implies that the three factors or dimensions extracted are the significant measures of the level of collaboration. Level of information sharing measured more of the level of collaboration (31.4%), followed by level of decision synchronization (19.1%), and the level of incentive alignment (17.4%).

From the results, we note that sharing information has high loadings and has the highest percentage of variance (31.403%) compared to decision synchronisation and incentives alignment dimensions (19.083% and 17.839 respectively) and therefore causes more variability in the level of collaboration than all the other dimensions.

This is not a surprise, because in the public sector, there may be less motivation to keep purchasing data confidential, since public policy requires transparency of all processes (PPDA Act, 2003). Therefore public purchasing information will be shared with relative ease. We also note that incentives alignment and decision synchronisation have low loadings and therefore have a relatively lower importance in influencing the level of collaboration.

Table 6.14 Level of collaboration rotated component matrix[a]

Measure	Component		
	1	2	3
Level of information sharing			
In our PDE, we very frequently share information on product/service specification with other PDEs	.933		
In our PDE, we very frequently share information regarding on hand inventory levels with other PDEs.	.910		
In our PDE, we very frequently share information regarding supplier performance with other PDEs.	.852		
In our PDE, we very frequently share information regarding price changes with the PDEs we collaborate with.	.752		
Level of decision synchronization			
In our PDE, we very frequently use supplier list with other PDEs		.834	
In our PDE, we very frequently share best practices with other PDEs.		.772	
In our PDE, we very frequently carry out joint training programmes across all collaborating PDEs.		.745	
In our PDE, we very frequently have common purchasing goals with the other PDEs.		.650	
In our PDE, we very frequently jointly carry out plans on needs specification with other PDEs.		.509	
Level of incentive alignment			
In our PDE, we very frequently share the savings made on reduced costs with other PDEs.			.535
In our PDE, we very frequently have made some investments with PDEs.			.501
Eigen value	**3.424**	**3.053**	**2.782**
% of variance	**31.403**	**19.083**	**17.389**

[a] Rotation converged in 6 iterations.

Benefits for an individual entity

Six items explaining 34.2% of the benefits of an individual entity were extracted. The final component matrix below indicates four items with factor loadings of over .30 as the significant measures of benefits of individual entity. We note that reduction in transaction costs through sharing of information is the item that most causes variation in benefits for horizontal purchasing collaboration in Uganda than the other items used in the study.

Table 6.15 Benefits of individual entity rotated component matrix

Measure	Value
Sharing of information reduces transaction costs.	.829
Better purchasing procedures are carried out and at minimal costs	.817
There are proper quantities of supplies	.654
There is existence of state of the art purchasing process (e.g. through . uniform purchasing procedures and common training)	.425
Eigen Value	**2.051**
% of variance	**34.176**

Findings and discussion of hypotheses testing

Using the descriptive statistics and the mean score[2], we show the level of existence of each variable we hypothesized on. We interpret values between 4.2 and 5.0 as very high; between 3.4 and 4.2 as high; between 2.6 and 3.4 as medium; between 1.8 and 2.6 as low and between 1.0 and 1.8 as very low. The hypotheses are shown below.

H1b: The level of trust between Ugandan PDE's in horizontal purchasing collaboratives is low.

H2b: The level of commitment of PDE's in Uganda in horizontal purchasing collaboratives is low.

H3b: The level of reciprocity among PDEs in Uganda in horizontal purchasing collaboratives is low.

H4b: The level of dependence among PDEs in Uganda in horizontal purchasing collaboratives is low.

H5b: The level of horizontal collaboration for individual Ugandan PDEs is low.

H6b: The level of benefits for individual Ugandan PDEs is low.

The findings on the levels of existence of hypothesized variables are shown in the table below.

Table 6.16 Descriptive statistics for hypotheses on level of existence of independent variables

Variable	Mean	Std. Deviation	Magnitude of hypothesised variable
H1b: Trust	3.3889	.83929	Medium
H2b: Commitment	3.3079	.89478	Medium
H3b: Reciprocity	3.1429	.87463	Medium
H4b: Dependence	2.9068	1.00791	Medium
H5b: Level of collaboration	2.8810	.69487	Medium
H6b: Benefits of individual entity	3.5026	.62036	High

Note: *n=63*

[2] Note that responses to all item scales in this study were anchored on a five point Likert scale, reflecting the degree to which they strongly disagreed (1) or strongly agreed (5) to the questions about horizontal purchasing collaboratives in Uganda.

Discussions of the hypotheses that seek to find the level of existence of variables

H1b: The level of trust between Ugandan PDE's in horizontal purchasing collaboratives is low.

Based of the findings in Table 6.16, the level of trust in Ugandan PDEs in horizontal purchasing collaboration is medium (mean = 3.3889). The results show that PDEs have not yet adjusted to orient themselves to practices of others and that friendliness is still medium. Literature suggests that for trust to develop, there should be honesty and competences amongst partners (Svensson, 2004; Swan and Trawick, 1987). The medium level of trust could be attributed to lack of honesty. Based on TCE and arguments by Grover and Malhotra (2003), the Ugandan PDEs may not be able to receive, retrieve and communicate information without error, causing information asymmetry, which in turn reduces the level of trust. We also note that in Uganda, PDEs have employees that are largely of the same academic and professional qualifications, with similar experiences and competences, which make staff in a PDE, not trust that the technical expertise got from others is worth taking up.

H2b: The level of commitment of PDE's in Uganda in horizontal purchasing collaboratives is low.

Based on the findings, the level of commitment in Ugandan PDEs in horizontal purchasing collaboration is medium (mean = 3.3079). This may be because in the developed countries and specifically in Ugandan public sector, also being relatively new, collaborating entities which are legally autonomous have an option to operate alone. They do not have high costs to incur if they left the collaborative, since they have just started the relationships. This is in agreement with the arguments of Gilliland and Bello (2002) and Zineldin and Jonsson (2000) that the level of commitment will not be high as long as partners are not constrained to leave or have an incentive to stay. We also note that the PDEs have differing values and targets. As long as they do not all prefer one mode of behaviour against the others (Allen and Meyer, 1996; Brown et al., 2005; Dion et al., 1992), the level of commitment will be more likely to be medium.

H3b: The level of reciprocity among PDEs in Uganda in horizontal purchasing collaboratives is low.

Based on the findings, the level of reciprocity in Ugandan PDEs in horizontal purchasing collaboration is medium (mean = 3.1429). This could be because in the initial phases of collaboration, PDEs in Uganda still perceive the input of others and compare them with their own input. This is contrary to Graen and Scandura's (1997) argument that for reciprocity to be high, parties in collaboration should attach the same value to what they get from other collaborating parties to what the receive.

Based on Liden et al. (1997), reciprocity will flourish if with time, the collaborating partners shift from self interest orientation to one based mutual interest. We note that in Uganda, selfishness is still common (see section 4.5), and conflicts between PDEs still exist, all reducing group interest and leading to medium reciprocating behaviour.

H4b: The level of dependence among PDEs in Uganda in horizontal purchasing collaboratives is low.

Based on the findings, the level of dependence in Ugandan PDEs in horizontal purchasing collaboration is medium (mean =2.9068,). We note that in Uganda, PDEs

have duplicated resources. This reduces the need for dependence, since each PDE can to some extent access some resources. We further note that because of a short time of existence, individual PDEs have not yet developed enough tacit knowledge to be regarded as a scarce resource by other PDEs. This means there is medium level of knowledge dependence since individual PDEs do not see a lot to gain from others in the collaboration. This matches with literature, which converges on the notion that the level of dependence will not be high when there are no unique resources to gain from collaboration (Kale, 1996; Leonidou et al., 2006). Based on the resource based view (Draft, 1983; Ordanini and Rubera, 2008; Wernerfelt, 1994), the level of dependence will be more likely to be medium until unique resources like knowledge, information, individual PDE status and image and technical competences develop. This also applies to other countries because their competences are still below the required level for development.

H5b: The level of horizontal collaboration for individual Ugandan PDEs is low
Based on the findings, the level of horizontal collaboration for individual Ugandan PDEs is medium (mean = 2.8810). We note that whereas there is a relatively high level of information sharing amongst the PDEs, this is moderated by relatively low levels of decision synchronisation and incentives alignment. We also note that because Ugandan collaborative initiatives are relatively new, it may be easy for the entities to share information since implementation of the actions is done individually, compared to decision synchronisation and incentives alignment, where implementation has to be done jointly. As had been noted (Holweg et al., 2005; Jagdev and Thoben, 2001), entities in developed countries and specifically in Uganda have not yet gone beyond passive information exchange to engage in proactive collaboration. This is also in agreement with Liden et al. (1997) that with time, collaborating partners shift from a position of selfishness to mutuality, and therefore are able to increase on the level of decision synchronisation and incentives alignment.

H6b: The level of benefits for individual Ugandan PDEs is low
Based on the findings, the level of benefits for individual Ugandan PDEs is high (mean = 3.5026). We note that sharing human resources amongst PDEs and joint training are the most evaluated benefits of collaboration. We further note that benefits realised from reduced operational costs and proper quantities of supplies are still medium rated. We note that whereas we had hypothesised that the level of benefits for individual entity is low, the results show it is high, though close to the medium rating. This may mean that the PDEs perceive high benefits in the initial phases of collaboration, even when they have not yet actually realised much benefits. This may be a signal of willingness to collaborate. This matches the findings of Kuada (2002) about collaboration in developed countries, that ñpeople perceive more than they seeò.

Hypotheses that deal with correlation between variables
We tested for correlation using the Pearsonôs correlation coefficient method. We used this method since our data were mainly interval data and normally distributed (Field, 2005). Note that from literature review and exploratory studies (Chapters, 3, 4 and 5), we get sufficient evidence regarding the direction of our hypotheses. Thus we use one-tailed tests in our analysis. Based on Cohen (1992) and Tabachnick and Fidell (2001), we interpret correlation coefficients as: .8 ï 1.0 (strong); .5 ï .8 (moderate); .2 ï .5 (weak) and .1 ï .2 (negligible).

In the next sections, we show and discuss results that deal with correlation between variables. The hypotheses tested for correlation are given below:

H1a: The existence of trust leads to a higher level of collaboration in the early phases of horizontal purchasing collaboratives.

H2a: The existence of commitment leads to a higher level of collaboration.
H2c: The existence of trust leads to a higher level of commitment.

H3a: The existence of reciprocity leads to a higher level of collaboration.

H4a: The existence of dependence leads to a higher level of collaboration.
H4c: The existence of dependence leads to a higher level of commitment.

H5a: The higher the level of collaboration, the higher the benefits of horizontal purchasing collaboration for an individual entity.

The zero order correlation matrix in Table 6.17 below shows the results.

Table 6.17 Zero order correlation matrix

Variable	Com.	Trust	Dep.	Rec.	Coll.	Benefits
Commitment	1					
Trust	.586**	1				
Dependence	.584**	.624**	1			
Reciprocity	.561**	.652**	.547**	1		
Level of collaboration	.252*	.467**	.529**	.287*	1	
Benefits of individual entity	.194	.618**	.504**	.400**	.675**	1

** Correlation is significant at the .01 level (1 ï tailed)
* Correlation is significant at the .05 level (1 ï tailed)

Discussion of the hypotheses that deal with correlation between variables
In this section, we discuss the results of each hypothesis and relate our findings to existing literature.

H1a: The existence of trust leads to a higher level of collaboration in the early phases of horizontal purchasing collaboratives.
There was a significant positive relationship between trust and collaboration (r = .467, p < .01). This shows that presence of trust increases the level of collaboration. The almost moderate relationship indicates the importance of building trust in the relatively newly established collaborative initiatives. From literature, we note that trust takes time to develop. According to Leonidou et al. (2006), building trust is a continuous process. Pesamaa and Hair Jr (2007) also noted that in early phases of collaboration, loyalty of partners to each other is largely missing, and this inhibits the growth of trust, since it causes opportunism and selfishness as we found out in Chapter 4.

H2a: The existence of commitment leads to a higher level of collaboration
There was significant positive relationship between commitment and the level of collaboration (r = .252, p < .05). This indicates that once there is commitment, the level of collaboration will also increase. The weak relationship could be attributed to the PDEs which are government owned, and could be less motivated to gain benefits since most benefits are public and less perceived as personal (Tumwine, 2006). Even

when individual PDEs get committed to the horizontal purchasing collaborative initiative, other PDEs may not proportionately collaborate at the same pace.

H2c: The existence of trust leads to a higher level of commitment
There was a significant positive relationship between trust and commitment (r = .586, p < .01). This indicates that once trust increases, commitment also increases. The moderate positive correlation indicates that trust and commitment enforce each other in horizontal purchasing collaboration. It may also mean that trust and commitment easily influence each other. Trust and commitment can be improved and reduced relatively quickly by each other. Our findings match with literature (Andaleeb, 1996; Brennan and Turnbull, 1999; Whan and Taewon, 2005; Ylimaz and Hunt, 2001) that trust leads to adaptations to accommodate a partner and be committed to such a partner. The moderate (and not strong) correlation between trust and commitment is justified by the short time the collaborative initiatives have existed in Uganda.

H3a: The existence of reciprocity leads to a higher level of collaboration
There was a significant positive relationship between reciprocity and collaboration (r = .287, p < .05). This is an indication that when reciprocity increases, the level of collaboration also increases. From our results, the weak correlation may mean that in the Ugandan context where collaborative initiatives are relatively new, the giving and taking practice between the PDEs has a low effect on the level of horizontal purchasing collaboration.

H4a: The existence of dependence leads to a higher level of collaboration
There was a significant positive relationship between dependence and collaboration (r = .528, p < .01). This indicates that an increase in dependence leads to a higher level of collaboration. We note that the moderate correlation between dependence and the level of collaboration compared to correlations between trust, commitment, and reciprocity with the level of collaboration may indicate that PDEs practice collaboration, not mainly because of trust, commitment or reciprocative reasons, but importantly because the other PDEs provide important and critical resources for which there are few alternative sources of supply. So, dependence is an important factor for increasing the levels of horizontal purchasing collaboration. Note that although H4b is low, this still means that to some extent PDEs have scarce resources. In those cases, it might be (very) interesting to collaborate.

H4c: The existence of dependence leads to a higher level of commitment
There was a significant positive relationship between dependence and commitment (r = .584, p < .01). This may indicate that an increase in dependence leads to an increase in the level of commitment.

H5a: The higher the level of collaboration, the higher the benefits of horizontal purchasing collaboration for individual entity
There was a significant positive relationship between the level of collaboration and benefits of individual entity (r = .675, p < .01). This means when the level of collaboration increases, the benefits for an individual entity also increase. The moderate relationship may reflect the hindrances to collaborative purchasing like the policy guidelines which still require some of the procurement processes to be implemented separately.

Based on Aylesworthôs (2003) empirical results, we note that the collaborative initiatives in developing countries are largely local networks and voluntary cooperatives, which are informally organised. We note further that such levels of collaboration will lead to moderate benefits. Since horizontal collaboration requires systematic analysis and configuration, which would support agile implementation of procurement plans, and continuous time oriented designs (Hoffmann and Schlosser, 2001), we find our results which show moderate relationship between level of collaboration and benefits there-from reasonable.

In Table 6.18 below, we show a summary of the hypotheses that deal with correlations and show whether the hypotheses are supported or not.

Table 6.18 Summary of results of hypotheses that deal with correlations

Hypothesis	**Correlation (one-tailed)**	**Hypothesis supported?**
H1a: The existence of trust leads to a higher level of collaboration in the early phases of horizontal purchasing collaboratives	r=.467, p<.01	Yes
H2a: The existence of commitment leads to a higher level of collaboration.	r=.252, p<.05	No
H2c: The existence of trust leads to a higher level of commitment.	r=.586, p<.01	Yes
H3a: The existence of reciprocity leads to a higher level of collaboration.	r=.287, p<.05	No
H4a: The existence of dependence leads to a higher level of collaboration.	r=.528, p<.01	Yes
H4c: The existence of dependence leads to a higher level of commitment.	r=.584, p<.01	Yes
H5a: The higher the level of collaboration, the higher the benefits of horizontal purchasing collaboration for an individual entity.	r=.675, p<.01	Yes

Regression results

Our model tested hypotheses that related to two levels:

- The predictability of the level of collaboration on benefits for individual entity;
- The predictability of the behavioural variables (trust, commitment, dependence, and reciprocity on the level of collaboration).

We therefore conducted a hierarchical regression analysis to test the fit of the model. The hierarchical regression analysis method is useful in such studies where the researcher has several known predictors at different stages of conceptualisation (Field, 2005).

We first entered the level of collaboration to predict the level of variability in benefits of an individual entity (model 1) followed by the level of collaboration, reciprocity, dependence, trust, and commitment as the predictors (model 2).

The hierarchical linear regression model below indicates that the level of collaboration is linearly related to benefits of an individual entity (F change = 41.367, Sig. F change =.000) and explaining 40.4% of the total variance of benefits of an individual entity (R^2 = .404). The model also indicates that trust, commitment, dependence, and reciprocity explain 53.9% of the total variance of the level of collaboration (R^2 = .539). The remaining 46.1% of the total variance of the level of

collaboration is explained by other factors which we did not consider in our study like those suggested by Leonidou et al. (2006). We recommend such for the future studies (Chapter 9).

Commitment and trust linearly significantly and positively relate to benefits (F change = 4.163, Sig. F change = .005) and explain 13.5% of benefits of individual entity. Since our model has a large F-ratio of above 1 as recommended (Field, 2005), we consider our model as a good one.

Table 6.19 Hierarchical Linear multiple regression

Model		Unstand. coefficients		Stand. co.			Collinearity Statistics	
		B	Std Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	1.757	.278		6.320	.000		
	Level of coll.	.651	.101	.636	6.432	.000	1.000	1.000
2	(Constant)	1.350	.297		4.537	.000		
	Level of coll.	.476	.109	.465	4.370	.000	.715	1.399
	Commitment	.197	.098	.279	2.005	.050	.418	2.393
	Trust	.280	.103	.367	2.719	.009	.444	2.252
	Dependence	.070	.090	.105	.775	.442	.443	2.260
	Reciprocity	.109	.104	.150	1.041	.302	.387	2.582

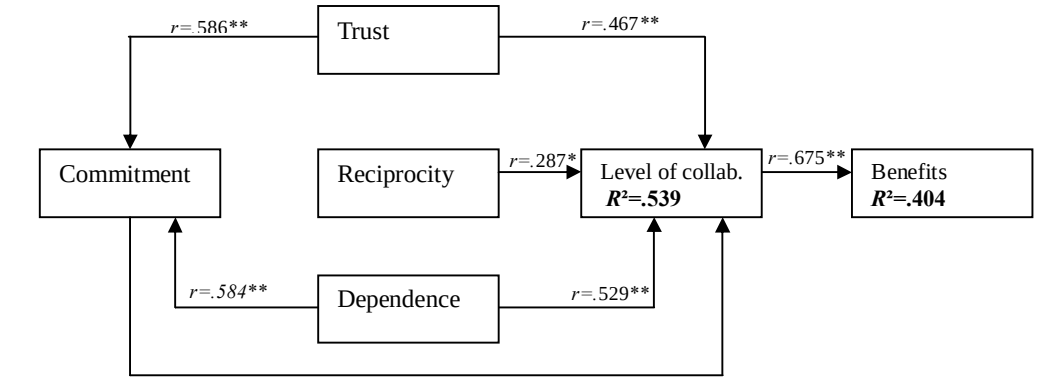
R	R^2	Adjusted R^2	Std. error of estimate	R^2 change	F change	Sig. F change	Durbin-Watson
.636[a]	.404	.394	.48279	.404	41.367	.000	
.734[b]	.539	.498	.43938	.135	4.163	.005	1.463

[a] Predictors: (Constant), Level of collaboration

[b] Predictors: (Constant), Level of Collaboration, Reciprocity, Dependence, Trust, Commitment

[c] Dependent variable: Benefits of individual entity

We show our conceptual model with results in Figure 6.2.



** Correlation is significant at the .01 level (1 ï tailed)
* Correlation is significant at the .05 level (1 ï tailed)
Fig. 6.2 Conceptual model results

From the regression results, it is interesting to note that contrary to results from developed countries (e.g., Leonidou et al., 2006), there is a noticed importance of trust and dependence compared to commitment and reciprocity in influencing the level of collaboration. One of the reasons may be that trust is relatively more important than others because one of its dimensions (friendliness) is relatively high in developing countries and Uganda in particular (Turyatunga, 2008). This compensates for other dimensions like competence which may be relatively low.

In developing countries, there is uncertainty of the outcome of collaborative practices (Luhmann, 1995). In Uganda, this is more pronounced as there are not enough interesting cases that demonstrate that collaborative initiatives result into the promised benefits. We argue that it is trust and dependence that are important, as compared to commitment and reciprocity, because these provide a cushion against the uncertainty of outcomes in developing countries (Luhmann, 1995; Monczka et al., 1998).

We also note from literature (see Leonidou et al., 2006), that trust refers to feelings about the relationship, while commitment represents manifestations of actions within the relationship. Our results reflect this argument since unlike developed countries, in the developing countries and specifically in Uganda, collaborative initiatives are still relatively new, so feelings (trust) are more important than manifestations of actions (commitment) which are yet to fully evolve.

We also note that dependence has more influence on the level of collaboration than other factors, because in developing countries, planning is not done in time, and sometimes is not done at all (Turyatunga, 2008). This makes time dependence an important dimension in predicting the level of collaboration. Based on RBV, seeking for resources which individual entities lack is a key motivator to collaboration, thus making dependence an important predictor. We also argue that dependence is more important in developing countries because it is about providing critical resources, which the developing countries largely miss, compared to developed countries which have relatively more resources.

We also note that developing countries have a higher income per capita, compared to developing countries (Aycan, 2002). Consequently, they have few resources available to each of the public entities, creating a need to depend on each other. Therefore dependence in developing countries is likely to play a major role in reducing uncertainties and maximising individual PDE benefits in such resource scarcity conditions common in developing countries (Kanungo and Jaeger, 1990).

6.5 Limitations

We used a survey design in this chapter. Our unit of analysis was an entity (PDE), making our population limited to only 116 PDEs in central government. Of the 107 PDEs, we received 63 responses which were fully filled for use, a response rate of 59%. Though our study makes new insights in the context of emerging developing world literature on public purchasing collaboration and provides a basis for future researches in the area, we may not perfectly generalise our results.

Our model also was limited to behavioural factors, mainly trust, commitment, reciprocity, and dependence. Even then, because of the parsimonious principle of research, we could not exhaust all the possible behavioural factors. The model left out non-behavioural factors especially the quantitative factors, which may also be necessary in explaining horizontal purchasing collaboration. However, our study gives a firm base for future researchers in the behavioural aspects in the developing countries like Uganda.

We conducted a cross sectional survey, which has its inherent weaknesses. Some behavioural aspects like trust and commitment can well be explained using longitudinal studies, since they can best be ascertained after a long careful study. However, given the time and cost limitations of the study programme, our method was found to be optimal.

6.6 Practical implications

We note that the affective commitment construct causes more variability in the commitment variable than the other commitment dimensions which are instrumental (fear of switching costs) and normative commitment (based on strong values and beliefs). To managers of collaborating PDEs, this is a lesson to build a sense of pride and belonging of their PDEs in the collaborative initiative. The issue of fear of switching costs may not be crucial as the collaboration is not yet strong enough to bind members.

We note from our descriptive statistics that the information sharing dimension has a higher mean score (mean = 3.19), compared to other dimensions that measure the level of collaboration like decision synchronisation (mean = 3.06) and incentives alignment (mean = 1.79). This indicates that sharing of information is crucial in the early phases of collaboration. PDEs should improve sharing of information on suppliers, specifications of products/services/works, price changes in the market, inventory related information, et cetera. Whereas in the developed world there is relatively more knowledge of the market and other aspects, there is notably information asymmetry in the developing world. This could be partly because of lack of competencies and poor information and communication technology capacities.

Collaboration leaders should emphasise this dimension, perhaps more than joint decision making and incentives alignment.

Whereas behavioural factors remain important and our research equally confirms so, we note the correlation between behavioural factors and collaboration are largely weak and moderate. Since horizontal purchasing collaboration initiatives in Uganda are relatively new and building up, it could imply that in the initial phases of collaboration, behavioural factors should be concurrently matched up with the other factors to ensure sustenance of collaboration. Commitment specifically will need some time for actual actions that motivate collaborating entities to be explicit. This makes time an essential dimension while evaluating or understanding horizontal purchasing collaboration. Thus, PDEs should not give up quickly. It takes time to develop trust, commitment, reciprocity, and dependence on which a desired collaboration would be based.

We also deduce that in developing countries, where competences lack (in terms of human resource capacity, technological capacity, information and communication technology capacity et cetera), motivation for collaboration may come from dependence. This is because PDEs have to be ñforcedò to collaborate because they have no competencies to manage on their own, yet they perceive or know that other PDEs have these capacities. Managers of PDEs should know this source of motivation because as time goes on, all PDEs may have adequate capacities to manage on their own, and thus see no need to collaborate. This is more possible for PDEs which are public and which may not perceive other benefits of collaboration like in the private sector. Other sources of motivation therefore should be focused on as well in managing collaborations in initial phases, so that by the time PDEs acquire adequate competencies to justify their independence from collaboration, they will have developed the collaboration momentum to be able to move on, as may be the case with developed countries.

We note that benefits (outcomes) of collaboration is a function of the level at which collaboration has reached. Managers should attain higher levels of collaboration, and deeper and wider scopes of collaboration activities to enjoy higher benefits of horizontal purchasing collaboration.

Chapter 7 – A collaboration development process model

7.1 Introduction

From the literature review (Chapter 3), two exploratory studies (Chapter 4), an in-depth case study (Chapter 5), and the results of a survey (Chapter 6), we get insights that enable us to realise our final goal of the study (about application of knowledge). In Chapter 7, we aim at deriving a model and working checklist to guide managerial planning and decision making process during the development of a collaborative initiative. We include the outline of this thesis to show the position of this chapter in the thesis.

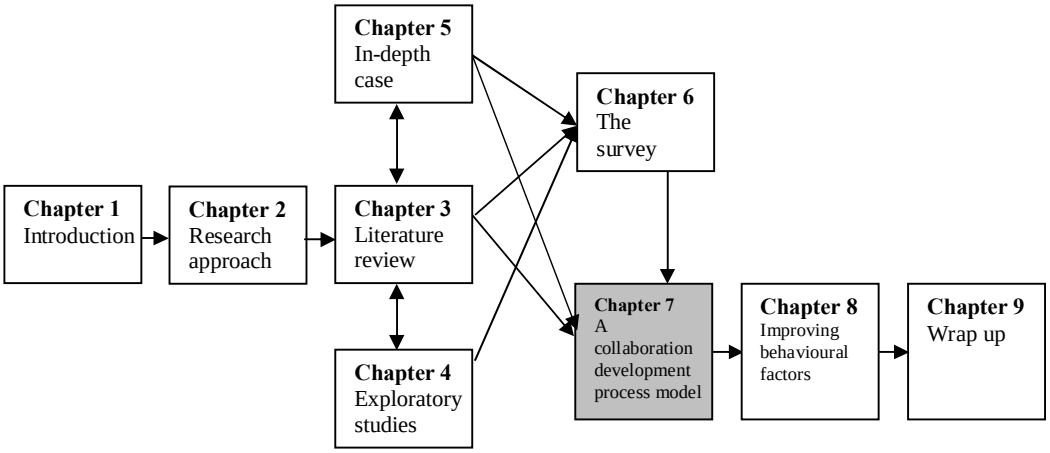


Fig. 7.1 Research outline

7.2 Objective

We note that despite existing knowledge on how collaborative relationships evolve (Das and Teng, 2007; DôAunno and Zuckerman, 1987; Fu et al., 2006; Johnson, 1999; Pet and Dibrell, 2001; Ring and Van de Ven, 1994; Saz- Carranza and Vernis, 2006; Schotanus, 2007), gaps still remain on how to start and operate a horizontal purchasing collaborative initiative. As we discuss in the remainder of this chapter, these gaps mainly relate to specific tasks to be undertaken, the stakeholders to involve, and the unique challenges to developing countries in collaboration. We therefore fill in these gaps in the existing collaborative initiative models to derive a working checklist to guide managerial planning and decision making process.

7.3 Literature review

In this literature review, we present and analyse existing collaboration process models. The processual dynamics underlying the evolution of collaborations are still a relatively unexplored phenomenon (Das and Teng, 2007). Whereas most research has focused on antecedents of networks and the different structures of networks (Ebers and Jarrillo, 1997), much less research has been focused on the process through which the network evolves (studies that have been carried out on process evolvement have

been carried out by, among others, Das and Teng, 2007; DôAunno and Zuckerman, 1987; Fu et al., 2006; Johnson, 1999; Pet and Dibrell, 2001; Ring and Van de Ven, 1994; Saz- Carranza and Vernis, 2006; Schotanus, 2007). Many models have been developed and supported, especially on factors that influence the performance of collaboration (Fontenot and Wilson, 1997; Lewin and Johnson, 1997; Vlosky and Wilson, 1997). However, no generally acceptable model of how collaborations develop has yet been published (Hakansson and Snehota, 1995; Wilson, 1995).

We give a brief description of the stages used in existing process models in Table 7.1. We note that different terminologies are used, though they all describe similar characteristics and tasks.

Table 7.1 Process model terminologies

Stage/Scholar(s)	Stage 1	Stage 2	Stage 3
Das and Teng (2007)	Formation	Operation	Outcome
Ring and Van de Ven (1994)	Emergence	Evolution	Dissolution
Saz-Carranza and Vernis (2006)	Creation	Functioning	Ceassattion
Fu et al, 2006	Launch committee	Process analysis/design	Deployment
Pet and Dibrell (2001)	Exploratory	Recurrent /relational contract	Outcome
Nollet and Beaulieu (2003); DôAunno and Zuckerman (1987); Johnson (1999)	Birth	Growth	Maturity/ concentration
Quinn and Cameron (1983)	Entrepreneurial collectivity	Formalisation and control	Elaboration of structure
Schotanus (2007)	Informal group emergence	Formal cooperative transition	Cooperative maturity/ cross road

The stages of collaboration development process have distinct characteristics, behaviours and tasks. In the table below, we summarize the various scholarsô views (based on Das and Teng, 2007; DôAunno and Zuckerman, 1987; Fu et al., 2006; Johnson 1999; Nollet and Beaulieu, 2003; Pet and Dibrell, 2001; Quinn and Cameron, 1983; Ring and Van de Ven, 1994; Saz-Carranza and Venis, 2006; Schotanus, 2007)

Table 7.2 Characteristics and tasks of collaboration evolution stages

Stage	Characteristics	Tasks
Formation/ Emergence/ Exploratory	• Calculated expectation of risk, inefficiency, and inequality • specific learning takes place • Partner Partners are unfamiliar to each other • Relatively more distrust • There is back and forth; tit-for-tat risk taking reciprocal pendulum • Formal mechanisms more common • Trust, commitment, reciprocity, and dependence still low • Initiative of few entities setting up collaborative initiatives because of	• Scan the environment like the laws and turbulence • Pre collaboration meetings of potential partners to understand each other • Establish preliminary contact • Mutual identification and appraisal • Check for similarities/differences in aims/mission • Begin implementing the agreement • Partners seek to negotiate the collaboration • Prospective partners indicate need to be together • Establish the collaboration procedures and values • Initiate trial and trust building initiatives, but avoid quick returns • Encourage more communication, more time together, create a sense of identity, and ensure respect to others. • Have a shared mechanism of interpretation • Progressively move from formality to informality • Pool some human and material assets

	anticipated benefits	• Put collaboration governance structures with sufficient power and control • Main emphasis: tentative discussions
Operation/ Evolution/ Recurrent/ relational contract	• May be smooth or conflict prone affair • Members get sure whether to proceed or not • Content learning takes place • Inter partner conflicts are common because of factionalism, differences in culture and strategic orientation • Mistakes are through commission rather than omission • There is a lot of housekeeping and learning • Relationship solidifies • Broader involvement of parties • Problems come up due to discovery of differences • The high market mode governance like bidding and contracting reduces the speed of building behavioural dimensions • Conditions in the environment make collaboration an attractive alternative	• Implement contractually binding commitments • Translate contractual commitments into concrete reality • Discover partners that have exploratory intent rather than exploitative intent • Actual procurement process takes place • Have mechanisms to bridge partners, through e.g. teamwork • Formalize the informal loopholes to avoid opportunistic individuals • Continuous development/review of partner objectives • Develop technological/tactical agreements
Outcome/ Dissolution	• Collaboration can be stabilized/reformed/decline/terminated • Collaborative management learning takes place • Violation of equity/decrease in collective strength can be perceived • Competition among collaborative initiatives, and sometimes results into mergers.	• Evaluate success/failure • Partners can try to handle even the negative outcomes through collection of errors • More strength in the collaboration • Involvement of legal procedures for termination • Offer rewards • Develop new skills, core competences and tacit knowledge to support the new change • Invest more/revisit/terminate

Gaps in existing knowledge

Despite the existing knowledge on the development of collaborations, we note that there are gaps in the existing knowledge on how to start and operate a horizontal purchasing collaborative initiative. We explain these gaps below.

We find that apart from being developed in a developed countries perspective, with other successes and experiences in collaborations (Walker et al., 2003), the existing models may not reflect the actual unique procurement tasks and requirements in the Ugandan context. For instance, Fukuyama (1995) found out that trust in developing

countries is difficult to earn. Babbar et al. (2008) further suggest that partners in developing countries are seen as less cooperative and less reliable. We also note that compared to developed countries, there seems to be a dominance of individualism in African countries. People are more likely to think of themselves as independent with their groups (Triandis, 2002). Therefore, they tend to shy away from long term relationships (Hofstede and Bond, 1988).

Based on the Lambert and Cooper (2000) framework, we argue that linking processes with each of the members of a purchasing collaborative may work in a well organised collaborative initiative, with a clear structure (known size and member relationships) and established management components (organisation, group resources, and supplier relationships). In developing countries like Uganda, the structure is not yet clear, there is no clear collaboration size in and relationships between the PDEs are not yet strong. In such circumstances, tasks for different stakeholders at different phases of collaboration need to be understood, so that in the absence of a clear structure, they are carried out.

We acknowledge the contribution of DôAunno and Zukerman (1987) and Spekman et al. (1998). Their emphasis was on key factors in the development of collaboration and they provided examples of tasks. We notice that the examples given are not exhaustive and are not classified according to various phases of collaboration. Classifying factors according to phases of collaboration is relevant to Ugandan collaborative initiatives which are relatively new and mainly in initial phases. We also note that the existing literature does not explicitly explain the relative importance of different tasks at different phases of collaboration development. Different tasks are likely to be more important at different phases than the others (Jap, 2001; Wilson, 1995). Therefore we find it important to fill this gap.

We also note that whereas other models have emphasised on the process, they have only mentioned that stakeholders are important in collaboration (Jap, 2001). How they should help the collaboration, is an issue not explicitly handled. Spekman et al. (1998) provide an interesting discussion on the role of alliance manager. Their discussion is a good starting point for us, to go beyond acknowledging the importance of the alliance manager, to appreciating the importance of other stakeholders. Understanding stakeholdersô importance is not the same as knowing when to involve them, make the collaboration work, and make it a more generally acceptable philosophy. This is because stakeholders may be important in different degrees and at different times (Fu et al., 2006). Note that stakeholdersô involvement in a collaborative initiative is important in developing countries, since the individual PDEs are largely not capable of being self sufficient. For example, donors not only are limited to financing the PDEs at the beginning of horizontal purchasing collaboration, but also have to continue to monitor how their resources have been utilised. Therefore, the lack of clear understanding of which stakeholders are required at a specific phase of collaboration is a gap we seek to cover in this chapter.

Horizontal purchasing collaboration may be attractive, but it is not simple or easy to create, develop, and support (Zineldin and Bredenlow, 2003). There are several challenges that should be attended to at all the stages of collaboration. However, most research concentrate on the benefits of creating and enhancing long term relationships. The existing models about evolution of collaboration (Das and Teng,

2007; Fu et al., 2006; Saz-Carranza and Vernis, 2006) do not directly include challenges in their models. We also note that whereas several authors have discussed challenges of collaboration (e.g. Schotanus, 2007), the context for developing countries like Uganda may be different, because most of the challenges of collaboration in developing countries tend to be associated with the individualistic culture and lack of clear understanding of horizontal purchasing collaboration. These challenges therefore should be understood in the developing world and the Ugandan perspective.

We further note that the tasks, stakeholders and challenges may be very important for developing countries like Uganda, where planning is not well done, and therefore risking leaving out important tasks (Tumwine, 2006) and stakeholders like donors are sometimes ignored.

7.4 Method

In this section, we explain the method used. We use a case based research methodology, by use of focus group discussions. The purpose was to obtain a depth of understanding of the tasks required, the stakeholders to involve, and the challenges faced in establishing and operating a horizontal purchasing collaborative initiative in a developing country.

The nature of our objectives is in line with this methodology (Yin 1994). Horizontal purchasing collaboration research in developing countries and specifically in Uganda is in the early stages with instances of unfamiliar situations (Eisenhardt, 1989; Voss, et al., 2002). The level of theoretical development is low as we did not come across any other research in this area in Uganda apart from the MBA and M.A theses of Kalinzi (2005) and Tumwine (2006) respectively. We did not want to be limited by questionnaires and models (Voss, et al., 2002), as we were more interested in new and creative insights and have a high validity with the ultimate users of the results; the practitioners, (see Section 2.2 on the rigour-relevance debate).

Choice of focus group technique to collect data
A focus group is a group of individuals selected and assembled by researchers to discuss and comment upon, from personal experience, the topic that is the subject of the research (Gibbs, 1997). According to Zikmund (1997), the focus group technique has several advantages: synergy, snowballing, serendipity, stimulation, security, spontaneity, specialization, structure, speed, and scrutiny.

With a focus group, the nature of interaction enables the group to produce insights that would be less accessible without the interaction (Morgan, 1988). We found the focus group technique useful because in addition to investigating what procurement officers (the participants) think, we also uncovered why they think as they do. Participants would explain to the group why they hold their views, would be questioned by fellow participants and sometimes challenged. In the process, we were able to explore and record the responses that were pertinent in answering our research objectives.

We were able to clarify responses and have had the opportunity for follow up questions and to probe responses. The synergistic effect on the group setting resulted

in data that might not have been uncovered in individual based data collection methods.

Size of focus groups
We considered the literature on the size of a focus group to make this decision. Small groups of less than four participants may not reap the benefits of synergy and besides, the participants may be sensitive to dynamics among the participants (Morgan, 1988). On the other hand, larger groups may be harder to control and may develop subgroups within the group (Strokes and Bergin, 2006; Walker, 1985). According to the literature (Morgan, 1988; Saunders et al., 2003; Walker, 1985), an ideal group size ranges between four to twelve participants. For our research, we took the size of ten participants per focus group.

Number of focus groups
Focus group sessions can be regarded as cases (Berkowitz, 1996). Case studies do not need to have a minimum number of cases or to randomly ñselectò cases. The researcher is called upon to work with the situation that presents itself in each case (Tellis, 1997). Case studies can be single or multiple designs. Where a multiple design is used, it must follow a replication rather than sampling logic (Yin, 2004). Yin further pointed out that the generation of results, from either single or multiple designs, is made to theory and not to populations.

Based on the arguments above, we considered eight cases, with carefully constituted members that represented all the PDEs in Uganda. These were within the recommended range of cases that goes up to fifteen (Eisenhardt, 1989; Miles and Huberman, 1994; Perry, 1998).

Population and sample
All the 80 participants were procurement officers in Ugandan PDEs. We ensured a relative equal representation from the different central government PDEs as shown in Table 7.3.

Table 7.3 Selected participants

Category of central government	Number of PDEs	Number of selected participants
Commission	14	10
Hospital	12	8
Ministry	25	17
Parastatal	64	45
Total	**115**	**80**

The participants were practicing procurement officers in the PDEs, who were also undertaking academic studies in the Master of Science Purchasing and Supply Chain Management class at Makerere University. These participants have all had an experience within purchasing collaboration. Apart from six officers who had experience in purchasing collaboration for three years, the rest had over five years of experience. All these officers have a professional qualification (MCIPS). Eight focus discussion groups were formed, each one with participants from each of the identified categories in Table 7.3.

Meetings to discuss how to start and operate a horizontal purchasing collaboration initiative were guided by the researcher. Four sessions per group were held. The session would go on for about two to three hours, until additional data and ideas no longer added to the issue being discussed (Eisenhardt, 1989; Shenhar 1998).

Validity of the research

Validity in quantitative research refers to whether a given construct measures what it purports to measure. Here validity encompasses a broader concern for whether the conclusions being drawn from the data are credible, defensible, warranted, and able to withstand alternative explanations. We used a multiple case design, which is an important source of validity of qualitative research (McCutcheon and Meredith, 1993; Yin, 1989). This ensures that the data is valid.

We always shared emerging catch words and conclusions from the focus group discussion sessions with the members of the group. We would ensure they agree with the summary. Sometimes they would help rephrase ours. This according to Yin (1994) improved the construct validity.

Reliability of the research

We ensured that we had key themes for the focus group discussions. These were:

- Tasks at different collaboration stages;
- The stakeholders to involve at each stage;
- The challenges at these stages
- The model.

These themes created some standard, to ensure that the discussions did not go beyond the expected limits of discussions. We also tried to encourage involvement of all participants to avoid the large group effect, especially where certain participants would try to dominate the discussion (Saunders, et al., 2003) or others would keep quiet for long. Thus responses were attributed to the whole group, not a few participants.

Matrix displays and tables were used to analyse the data as recommended in qualitative research designs (Miles and Huberman, 1984, 1994). We added quotes from discussions to add qualitative insights. All these added to the soundness of the research.

Data analysis

Unlike in quantitative analysis, where numbers and what they stand for are the material of analysis, the qualitative analysis deals in words and is guided by fewer universal rules and standardized procedures than statistical analysis.

> *We have few agreed-on canons for qualitative data analysis, in the sense of shared ground rules for drawing conclusions and verifying their sturdiness* (Miles and Huberman, 1994).

According to Miles and Huberman (1994), qualitative data analysis consists of three concurrent activities:

- Data reduction;

- Data display;
- Conclusion drawing and verification.

Data reduction refers to the process of selecting, focusing, simplifying, abstracting, and transforming the data. This makes data manageable. Some focus group participants had a number of interesting things to say about the presentations, but remarks that only tangentially related to the issue of suitability were left out.

Data display involves organising, compressing, and assembling of information to easily understand configuration to make conclusion. A display can be an extended piece of text or a diagram, chart, or matrix that provides a new way of arranging and thinking about the more textually embedded data. We used matrices to display data. By determining the frequency of support by focus groups on issues that were being investigated (Batonda and Perry, 2003), we were able to draw meaningful conclusions.

Conclusion drawing and verification involve the extraction of meaning from displayed data by noting regularities, patterns, explanations, possible configurations, and propositions. We were able to extract meaning from the tables and charts to derive conclusions for our research objectives.

Similar studies in collaboration development (e.g. Nollet and Beaulieu, 2003) have used Miles and Huberman (1994) approach to analyse data. According to Miles and Huberman (1994), the above three aspects make up the general domain called ñanalysisò. These are detailed in the subsequent sections.

7.5 Results

In this section, we explain the results of the study on gaps in the existing knowledge in the tasks required, the likely challenges, and the stakeholders to involve in starting and operating a horizontal purchasing collaborative initiative.

We reduced the discussions from the focus groups using the matrix table method (Miles and Huberman, 1994). We summarised all the tasks identified during the focus group discussions, tabulated them and scored them. To appreciate the relative importance according to our study, we present the tasks according to percentage of score. The first table (Table 7.4) describes the tasks required in starting and operating a horizontal purchasing collaboration in Ugandan PDEs.

Table 7.4 Tasks identified in the focus group discussions

Stage	Tasks	Score (%)
Emergence	Check values of other entities	100
	Instil collaboration and make a philosophy of collaboration / norms	100
	Analysis of procurement laws/procedures & set general guidelines/manual	87.5
	Establish preliminary contact	75
	Capacity building	62.5
	Work on initial contradictions	62.5
	Set working guidelines	62.5
	Identify potential partners	62.5
	Put structures ï purchasing committee	62.5

Stage	Tasks	Score (%)
	Create sense of identity	62.5
	Frequent meetings	62.5
	Team building efforts	62.5
	ICT communication/website	62.5
	Search evidence from other sources	50
	Unified understanding & interpretation	37.5
	Sign memorandum of understanding	37.5
	Trial collaborations	37.5
	Contact stakeholders	25
	Avoid quick returns	25
Operation	Face to face interactions and frequent meetings	87.5
	Increase interpersonal interaction	75
	ICT mechanism/website	75
	Attend to peripheral issues	62.5
	Be fair to all parties	62.5
	Implementation of tactical agreements	62.5
	Set specific purchasing guidelines	50
	Strong communication system	50
	Meet appointments	37.5
	Sensitization on stage one outcomes	25
	Consolidate processes	25
	Allocate resources well	25
	Translate contractual commitments into action	25
	Discover partners with wrong intentions	25
	Readjust agreements	25
Outcome	Recognize failure and or success	75
	Correct previous errors	75
	Develop new strategies and strengths	75
	Shift from formality to informality	62.5
	ICT mechanism/website	62.5
	Gain more competency	37.5
	For failure terminate	37.5
	Develop new skills	25
	Handle unforeseen situations well	25

The total percentage indicates how often each challenge was suggested by the focus groups.
Note that these percentages are not meant to be precise measures of importance, because the focus group discussions were part of a search for meaning, rather than part of a statistical survey. Besides, in qualitative research, the numbers and what they stand for is not the key for analysis (Miles and Huberman, 1994)

From the results, the most identified tasks are about ensuring that values and norms and philosophy of the collaborative initiative are strengthened, and are scored higher at the emergence phase. On the other hand, operational tasks are scored relatively low. These have a lot to do with sustenance of the collaborative initiative.

Table 7.5 describes the likely challenges in starting and operating a horizontal purchasing collaboration model.

Table 7.5 Likely challenges in implementing the model

Challenge	Reason/cause	Score (%)
Resistance to change	Fear of the unknown Worries about job security Used to their style of work Reducing their income Reduced recognition Fear big work challenges Fear of ñworking with the enemyò Big entities feel they are big enough and can enjoy benefits of collaboration alone Suppliers do not wish to deal with a consortium, because it would force them to be efficient and loose money	100
Dependency on a few key entities		100
Lack of trust		87.5
Bureaucracy in first stages	Many parties may not have same understanding	75
Opportunistic behaviours	Selfishness	75
Lack of commitment		75
Communication problems	Because of the big structure	75
Limited experience	Big tenders may be beyond capacities	62.5
Accountability/ responsibility	Collaboration involves group accountability, with ñI do not careò attitude	62.5
Differing needs	Some entities do not largely use related supplies/services/works	62.5
Elimination of low value suppliers	Purchases will be in large quantities	62.5
Risk of failure of supply: may affect many entities	Keeping all eggs in one basket	62.5
Political interference	Politicians want to individually keep in control of individual entities	62.5
Conflict of interests		32.8
Staff loyalty: to non supervisors but who head collaboration		32.8
No enabling law	No clear provisions in the current PPDA Act 2003	32.8
Longer lead times	Most suppliers are small and do not have enough for combined purchases	32.8
Reduced flexibility	Many parties interests have to be addressed even if the decision is need soon	32.8
Difficulty in contract management	Many parties involved may lead to weak follow-up systems	25
Differing sizes of entities		25
High set up costs		25
Loss of suppliers	They all can not win tenders in a combined tendering system	12.5
Large collaborations	May cause monopolistic conditions	12.5

The total percentage indicates how often each challenge was suggested by the focus groups. These percentages are not meant to be precise measures of importance, because the focus group discussions were part of a search for meaning, rather than part of a statistical survey.

Resistance to change is the most scored challenge in collaborative initiatives. Dependence and lack of trust also have high scores. We note that the behavioural issues are a major challenge, relative to operational challenges. Improvement on trust, commitment, dependence, and reciprocity could be one way of reducing this challenge. We discuss this in more detail in Chapter 8.

Table 7.6 describes the stakeholders who should be involved in designing a horizontal purchasing collaboration model.

Table 7.6 Stakeholders to be consulted at the different stages

Stage	Stakeholder	Reason	Score (%)
Emergence	PPDA	Overseer of procurement activities Initiates revisions in law In better position to sensitise others	100
	Donors	They need to know how their money is to be spent Capacity building	100
	Ministry of Finance	Controls government budget Have financial experts	62.5
	Suppliers/ private sector	Can be affected by decisions, and delay or fail to supply	62.5
	Cabinet	Originates policy	62.5
	Procurement related staff	Have expertise on operations	62.5
	Heads of entities	They should agree because they commit resources	62.5
	Coordination committee	Liase with relevant stakeholders	62.5
Operation	Procurement related staff	They carry out the operations Need to develop skills	100
	Technical PDEs	They offer technical advice	87.5
	PPDA	They supervise operational activities Can authoritatively sensitise	62.5
	Suppliers	They need to also collaborate on supplying the combined big tenders To appreciate the changes	62.5
	Donors	They need to know how their money is being spent	62.5
	Members of parliament	They are civic leaders, they need to account for public expenditure to their constituents	62.5
	Heads of entities	Responsible for overall management of operations	62.5
	Coordination committee	Liaise with other stakeholders	62.5
Outcome	PPDA	They need to confirm successes or failures To know quality/ level of execution	100
	Ministry of Finance	Responsible for future improvements and correction of identified errors	100
	Donors	They need to know how their money was spent More future funding	62.5
	Users	They provide feedback Can suggest changes to improve	62.5
	Coordination committee	Get feedback on its own performance	62.5

The total percentage indicates how often each reason was suggested by the focus groups.

These percentages are not meant to be precise measures of importance, because the focus group discussions were part of a search for meaning, rather than part of a statistical survey.

We note from the analysis above that donors are important stakeholders in collaborative initiatives. This may be more relevant for public entities in developing countries that largely depend on donor support. For example, more than half of the Ugandan budget is supported by donors (GOU Report, 2008).

To design a horizontal purchasing collaboration model

In the first sections, we aimed at investigating the attributes necessary for a horizontal purchasing collaboration model. In this section, we use these findings to design a horizontal purchasing collaboration for Ugandan PDEs. The model takes care of dynamic processes involved in collaboration (Anderson et al., 1984; Hakansson and Snehota, 1995). The block arrows show that collaboration is a process, but the ordinary arrows show that the process is back and forth.

Since the findings are based on practitionersô findings as well as literature, this model will be useful in managerial planning and decision making process in horizontal purchasing collaboration, which is needed in developing countries like Uganda (Turyatunga, 2008). The model is presented in Figure 7.2.

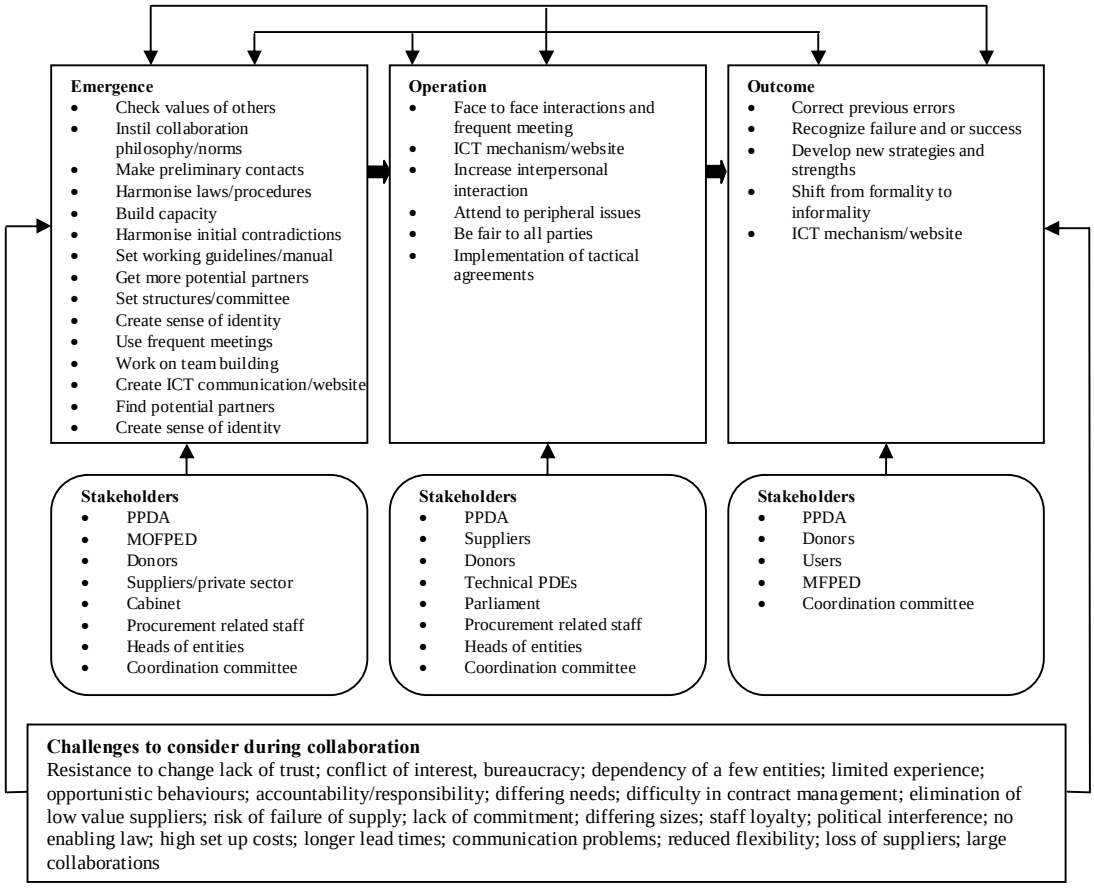


Fig. 7.2 Challenges, tasks, and stakeholders for horizontal purchasing collaboration

7.6 Discussion and practical implications

From our goal, which is to fill in the missing elements specific to the developing countries context in starting and operating a collaborative initiative process, we get interesting insights. The missing elements specific to the developing countries context are:

- The importance of improving behavioural factors;
- The importance of donors as stakeholders;
- The importance of handling negative issues in collaboration as they come up;
- The importance of face to face interactions and frequent meetings.

These elements are discussed in the rest of this section.

The importance of improving behavioural factors
At the emergence stage, the tasks that are rated highly are ñchecking values of other entitiesò and ñmaking a philosophy of collaboration normsò The following quotation from one of the focus groups seems to make these tasks clear:

> *"To ensure the success of horizontal purchasing collaboration, PDEs intending to take part, must share a lot in common in their procurement needs, and be of the same mission.*
> *There is need to create a knowledge base, a critical mass in collaboration to give the horizontal purchasing collaboration "energy" to go through the likely challenges. All stakeholders should be fully convinced that collaborating is the way to go, whatever it takes."*

This is in agreement with Hoffmann and Schlosser (2001) who noted that agreement on clear and realistic objectives for the initial phase is very important for collaboration. Hoffmann and Schlosser further noted that objectives assure concrete steps for implementation and early success, advancing development of the collaboration.

A practice of togetherness should progressively emerge. A way of talking, sharing resources and ideas should be part of the practice in the initial days of the collaboration. The following quotation from one of the members puts this in perspective:

> *"Working together should be obvious, familiarity with each other, the excitements to have collaboration succeed, plus inside jokes and laughter should accompany horizontal purchasing collaboration practices and meetings."*

Collaboration norms and values are also highly supported by all the focus groups, because some of the PDEs have their individual orientations which may hinder collaboration efforts. One quotation from the discussions makes a reference to this:

> *"To ensure the success of horizontal purchasing collaboration, all participating PDEs come to a central understanding, put off their differences*

and work in a common direction to make their collaborative purchasing a success. Participating entities should put forward their views. Consensus is vital among all PDEs if mutuality is to be achieved"

We note that in developing countries like Uganda, there seems to be an inherent lack of consensus in most public decisions (GOU Report, 2008). An example is the parliamentary records, where about 20 percent of the decisions taken are after the members have expressed disgruntlement. In some cases, the opposing members move out. This unique situation for Uganda makes consensus management an important dimension for survival of voluntary collaborative initiatives in Uganda and other developing countries.

The importance of face to face interactions and frequent meetings

At the operation stage, ñface to face interactions and frequent meetingsò comes out clearly from all focus groups. Face to face interactions and frequency of meetings create a high degree of positive feelings towards each other. As Hutt et al. (2000) put it, collaborations fail to meet expectations because little attention is given to nurturing the close working relationships and interpersonal connections that unite the collaborating entities. This is one way of building trust, which is necessary during the emergence stage of collaboration. Several meetings could be arranged, both official and unofficial. One of the focus groups made the following observation:

"Pre collaboration meetings involving members of contracts committees, heads of user departments, technical departments, accounting officers from various PDEs would be necessary in the beginning, perhaps on a monthly basis to check for their similarities/differences in aims and objectives. Through these meetings, partners would encourage more communication and create a sense of identity in the collaboration. These meetings would put up collaborative governance structures with sufficient power and control and create a shared mechanism of interpretation. Top managers of PDEs should be fully involved in all arrangements. If possible, procurement related staff should be part of top level meetings. The top support from the "board room" is much needed. These informal and formal meetings would instil the virtue of togetherness in the PDEs."

Contextualising the argument of face to face interactions, we find that unlike in developed countries where even if there are no face to face physical contacts, collaborative initiatives can use technology like video conference facilities, this technology largely lacks in developing countries and its adaptation is not always realised. To the best of our knowledge, video conferencing systems were installed in three PDEs, and still, the systems were not being used for procurement related activities. Therefore, in the absence of technological systems to increase the level of interactions, developing countries should increase on level of meetings; formally and informally. We also note that a face to face interaction is hampered by lack of attendance of meetings. In Uganda, attendance of meetings by public officers is still wanting (GOU Report, 2008). It is reported that public officers do not attend and worse still do not always send representatives to attend on their behalf. This reduces on the level of interactions, which is important for collaboration.

We note that most tasks are concentrated at the emergence stage. Emergence, operation and outcome phases have 54%, 25% and 21% of the tasks. We therefore derive that the initial stage of horizontal purchasing collaboration requires more different efforts than the last phases. Hoffmann and Schlosser (2001), though on a different dimension on critical factors (not tasks), found out that critical success factors are concentrated in the early stages of alliance evolution, making it evident that systematic preparation and careful planning are important for collaboration success. This was also the view of Jap (2001) and Wilson (1995), who emphasized that of all the stages of collaboration, the first stage is most important, especially in the creation of trust. The collaboration must be carefully planned at the beginning, so that it has the momentum to proceed through the next stages.

We did not find differences between the developed countries and developing countries regarding the high number of tasks at the emergence stage. This emphasizes that the emergence stage is important in setting up a collaborative initiative, in both developed and developing countries. From this finding, we argue that managers of collaborative initiatives should allocate more resources to a collaborative initiative at the emergence stage, even when they have not yet got the assurance that the collaboration will work out.

The importance of handling negative issues in collaboration as they come up
At the outcome stage, the task emphasized is to ñcorrect previous errorsò. In the collaboration, errors and misunderstandings which could have come up, should be amicably corrected. This finding is relevant to Uganda, as noted by Tumwine (2006), that Ugandan managers tend to leave complaints unresolved for long and end up in crises. Errors should be corrected as they come up and should be considered as learning points. The members of the collaborative initiative should avoid making them in the next round of dealings.

The challenges most identified are:

- Resistance to change;
- Dependency on a few key entities;
- Lack of trust;
- Communication problems;
- Lack of commitment;
- Opportunistic behaviours;
- Bureaucracy in first stages;
- Limited experience;
- Accountability / responsibility;
- Elimination of low value suppliers;
- Risk of failure of supply: may affect many entities and political interference.

Resistance to change is highly identified because of fear of the unknown as a result of lack of trust in the future dealings. This requires improvement of the behavioural factors. This is dealt with in Chapter 8.

The following quotations from the focus group discussions seem to put the challenge of resistance to change:

"Stakeholders may not easily allow change because of differing values. Some of the heads of PDEs are driven by personal interests and are not driven by the organisational interests.
Resistance to change can take a variety of forms and reasons. There might be an internal belief a collaboration could not know the entities' business well enough to make the right decision; there might be a fear of intellectual property and or confidential information loss; there might be a fear of "working with the enemy"; there might be a belief that the entity's volume is already so large and so well leveraged that a collaboration will not be able to bring any additional value especially for big entities."

Dependency on a few key entities was also a major challenge. Some entities like the Ministry of Finance Planning and Economic Development, Ministry of Justice and Constitutional Affairs, Ministry of Education, Ministry of Works do a lot for other small entities through drafting and advising on the contracts, provision of expertise in unique purchases, and other areas. These may perceive less benefits if reciprocation is not explicit. All these challenges need to be identified in the model, so that a mechanism to mitigate them is devised, for the model to work well.

The importance of donors as stakeholders
Donors are most supported at the emergence stage because they provide resources, and must be sure of the method that will be used to utilise them. Besides, they need to be fully involved as a way to convince them to provide more resources.

At all the three stages, we note that PPDA is a key stakeholder, which must be involved. It is most supported at the emergence stage, because it oversees procurement activities, initiates revisions in law, and it is in better position to sensitise others and outcomes. At the outcome stage, the PPDA comes in because it is the regulatory body to evaluate the performance of the purchasing activities in the collaboration.

The procurement related staff, especially the procurement and disposal unit staff, contract committee members, accounting officers, evaluation committee members, and the accounts staff that deal with procurement are vital to a less extent at the emergence, but to a large extent at the operation stage. This is because they are responsible for implementing the decisions of the collaboration. They also need to learn through being involved.

The Ministry of Finance, Planning and Economic Development is also a key stakeholder. It controls the overall procurement budget. In Uganda, it has a pool of financial and procurement experts. It makes policy which a horizontal purchasing collaboration requires. As earlier suggested by Mitchell et al. (1997), power and legitimacy are the core attributes of stakeholder identification typology. All the stakeholders that score highly in our study (Ministry of Finance, PPDA, Procurement related staff), have both power and legitimacy.

We note that unlike the tasks considered above, where more of the emphasis is put on emergence, for stakeholders, equal emphasis is required at both the emergence and operation stages. We also note that whereas the stakeholders are important for

collaborative initiatives at all the stages, the task of contacting them is not seen as key. Contacting stakeholders is least scored, an indication that even when they are important, other actions like harmonizing values of different stakeholders and ensuring they have the same collaboration philosophy seem to be more emphasised tasks than contacting stakeholders.

7.7 Limitations

We were aware of the general criticism of case study/focused group discussion design. It does not apply adequate rigour. Bias may not be easily avoided in the analysis and derivation of theory/model (Amaratunga and Baldry, 2001). We took extra care to minimise the effect of such limitations to our findings.

Our judgements were largely objective. We would pick up a theme that came up from several focused group discussions. Because of the attendance of the researcher in all the sessions, it was easy to analytically conclude that the issue had become prevalent in all the discussions and therefore pick it up. We avoided feelings and emotions that we had preconceived, by accepting facts the way they evolved. We did not ñfight dataò.

The use of eight objectively constituted focus group discussions did not only ensure replication (Yin, 2004), but also ensured manageability of the data. These are important steps to ensure validity of research findings in focused group discussion/ case study designs (Yin, 1994). This argument is further supported by Miles and Huberman (1994):

> *"One can not ordinarily follow how a researcher got from 3.600 pages of field notes to the final conclusions, sprinkled with vivid quotes though they may be".*

As suggested by scholars for such studies (Eisenhardt 1989; Glaser and Strauss 1967; McCutcheon and Meredith 1993), we did not select the focus group discussions according to statistical reasons, but to relevance. It is therefore important to note that our model building does not necessarily follow the traditional scientific statistical generalisation (Yin 1994), but rather should be to analytical generalisation.

Finally, we developed our model without directly using previously developed models for developed countries. In other words, we did not check whether an existing model fits with the Ugandan context, but we started developing a new model from scratch. After developing this new model, we compared the outcomes of the new model with existing models. We did this to be able to purely check (the respondents were not influenced by previous results from developed countries) whether a model developed in a developing country has other (new) actions than models developed in developed countries. A disadvantage of our method is that we could not check whether actions that were not mentioned are not important in the developing country context or that the respondents simply did not think of it. This leaves an interesting opportunity for further research.

7.8 Conclusions

We found out that at the emergence stage, there is a need to have a critical minimum effort to support future operations. We argue that it is even more necessary in developing countries and specifically in the Ugandan context where business associations mainly fail at the initial phase (Turyatunga, 2008), to pay sufficient attention to the emergence stage.

We also note that different stakeholders should be involved in the collaboration process. We further note that the correct choice of which stakeholders to involve at the different three stages should be properly made. Omitting an important stakeholder may have adverse effects to the process. We state that the developed countries based literature does not seem to emphasize the importance of donors as key stakeholders. This may be because the developing countries do not use donor aid. We argue that donors should be involved in collaboration structures in the developing countries, since they contribute a lot. They need to follow up on the performance of their aid.

Existing literature recognises the importance of information and communication technology as a means of improving trust, commitment, reciprocity, and dependence in the collaboration. However, we note that this may not be applicable to the developing countries like Uganda where this technology is inadequate and sometimes non existent. We argue that physical interactions should be increasingly used in developing countries. The fact that the adoption and use of even the available information and communications technology is not yet appreciated by the workers (Turyatunga, 2008) further justifies our argument.

Chapter 8 – Improving behavioural factors

8.1 Introduction

In Chapter 7, we aimed at filling in the gaps in existing collaborative initiative models. These gaps were related to the tasks, the challenges, and the stakeholders that are specific to developing countries. We then derived a model to guide in starting and or sustaining a horizontal purchasing collaborative initiative, in the developing countriesô context.

The results of Chapter 7 show that the most important tasks in collaboration are about values, norms, and philosophy of collaborating. We noted that these tasks have a lot to do with trust, commitment, reciprocity, and dependence.

From Chapter 7, we also note that the given reasons for the challenge of resistance to change are mainly about fear of the unknown and worries about the future operations between the PDEs. These may be mitigated by improving the level of trust, commitment, reciprocity, and dependence. Consequently, suggesting actions to improve these behavioural factors is important. These actions fit with our goal of applying the understanding from our study to start and or enhance horizontal purchasing collaboration in developing countries (Uganda).

In this chapter, we link actions to the behavioural factors and discuss how the behavioural factors can be improved based on the literature. We call this result the ógeguidanceô. Next, we empirically check the relevance of the guidance.

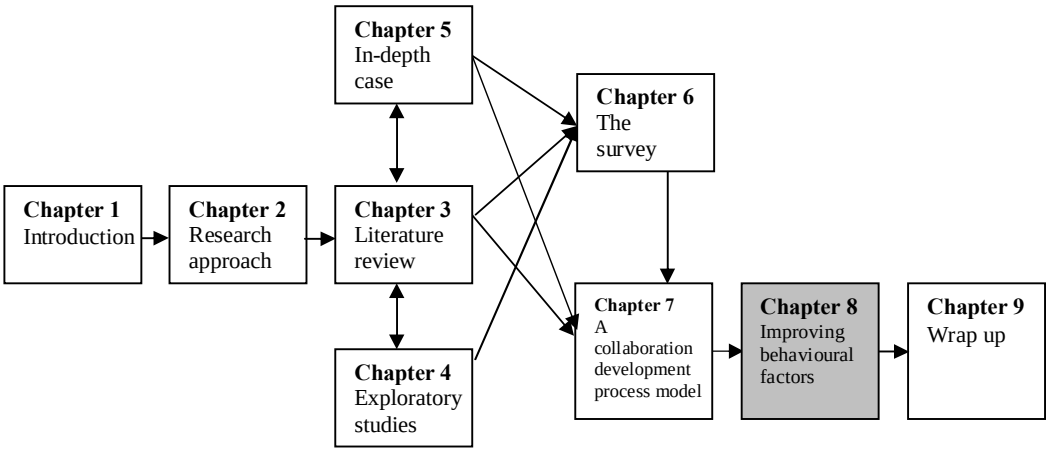


Fig. 8.1 Research outline

8.2 Objective

Many have spoken about having trust, commitment, reciprocity, and dependence, instead of speaking about building them (Karlsen et al., 2006; Varheim et al., 2008;

Varheim, 2009). For example, the literature on trust development seems to portray behavioural attributes as situations that just result out of circumstances and are not planned for and developed (Nguyen and Rose, 2009).

Based on theory and our study findings, we suggest a practical approach and key actions for handling horizontal purchasing collaboration. According to the model we developed in the previous chapters (see Chapter 6), the level of benefits of horizontal purchasing collaboration is influenced by the level of collaboration and the behavioural factors, we aim at suggesting ways based on the literature and our previous findings (see Chapter 7) to improve these factors. Once these factors improve, the level of collaboration and the related benefits are also likely to improve.

We aim at developing and empirically testing guidance on how to handle horizontal purchasing collaboration. The guidance includes a practical approach and key actions for improving behavioural factors for horizontal purchasing collaboration. As Gadde and Hakansson (2001) suggested, we go further than the survey, and make our research context-specific to explore apparent truths (Christopher and Juttner, 2000).

8.3 Literature review

In our literature review, we use three theories from which we derive the actions we suggest that should be taken to improve behavioural factors in horizontal purchasing collaboration. Note that there are several theories that can be used to explain how to improve behavioural factors. However, several authors in the area of purchasing collaboration (Ingram and Roberts, 2000; Khalfan et al., 2007; Lawler, 2001; DiMaggio and Powell, 1983; Nguyen and Rose, 2009; Scott, 1995; Werner, 2008) have used social exchange theory, institutional theory, and resource dependence theory. Below, we shortly describe the theories. In the rest of this section, we discuss the actions derived from these theories.

Social exchange theory
Social exchange theory is about a joint activity with at least two parties and each party has something the other values (Lawler, 2001). We explain this theory in detail in Section 3.2.

Institutional theory
Institutional theory suggests that in order to survive, organisations should conform to the rules and belief systems prevailing in the environment (DiMaggio and Powell, 1983; Scott, 1995). The theory focuses on the deeper aspects of social structure and provides guidelines for social behaviour. We explain this theory in detail in Section 3.2.

Resource dependence theory
Resource dependence theory is based on the premise that the control over critical resources of one focal organisation is the most important determinant of organisational behaviour (Werner, 2008). We explain this theory in detail in Section 3.2.

How to improve behavioural factors based on social exchange theory
Long term orientation

According to Anderson and Weitz (1992), to have a lower level of opportunism and develop trust, a long term orientation should be adopted. Collaborating entities should have the same long term vision. Long term goals should be aligned, as Braendshoi (2001) argues, that the willingness to take risk by partners may be an indicator of aligned goals. PDEs in horizontal purchasing collaboration initiatives should have a long term orientation towards their relationships. This enables development of personal relationships among personnel in the PDEs (Khalfan et al., 2007). This will increase trust and commitment among the PDEs. However, PDEs should note that developing long term relationships requires a long period of time for partners (PDEs) to appreciate each other.

Friendship

Friendship leads to trust, commitment, reciprocity, and dependence. It was noted by Handy (1995) that trust needs touch and commitment requires personal contact and friendship to make it real. Individuals within PDEs should work together and share leisure time. Based on Khalfan et al. (2007), people in collaborating organisations will tend to trust people rather than the organisation. Corporate sports competitions between the PDEs can be one way to ensure friendships. Borrowing from Khalfanôs suggestion, we argue that friendships will make procurement related personnel in PDEs consider feelings of those in other PDEs before taking decisions. However, we warn PDEs to avoid free riding issues that may be encouraged through friendship especially in the initial times of horizontal purchasing collaboration (Ingram and Roberts, 2000).

Loyalty

We note from our research that the collaboration initiatives in Ugandan PDEs are still relatively new. They are prone to breakages. They need to be protected and built up. Loyalty will contribute to this aspect. This will go further to build trust and commitment. Once loyalty is strong, as Pesamaa and Hair Jr (2007) say, opportunism and selfishness, which we noticed in our findings in Chapter 4, will reduce. Loyalty will ensure that PDEs in horizontal purchasing collaboration ñsave faceò to avoid conflicts and always seek to find mutually beneficial solutions.

Shared goals

According to the social exchange theory, trust between parties develops through regular discharge of obligations and through gradual expansion of exchanges (Lawler, 2001; Lazonick, 1990). The regular discharge of obligations invoke an obligation of the other party to return the favour (Nguyen and Rose, 2009), which develops reciprocity.

According to Khalfan et al. (2007), every member in a collaborative initiative should be seen to be fulfilling a joint task, rather than viewing their own role as separate from the rest. We also note that the challenge to building trust is about creating dialogue necessary to create a shared future (Holton, 2001). The frequent and meaning interaction encourages open sharing of goals and insights (Holton, 2001; Quinn et al., 1996). We noted division of tasks in collaborative initiatives. We noted that PDEs have different goals. This can also be demonstrated by the diverging mission statements for the PDEs. There is need to have a dialogue that aims at having shared goals, or at least each PDE being aware of the goals of the others.

Whereas it is logical that each entity will come to collaboration with a set of motives, values and needs, efforts should be made to progressively make these entities shift their individual philosophies to the general one, shared largely by all, to have a shared and consistent knowledge base (Braendshoi, 2001). One way to do this is for them to align their operations to those of the collaborating PDEs. For example, they can standardize specifications for routine products. We found out that specifications for even routine products like stationery differ in different PDEs.

Reasonable behaviour
Reasonable behaviour, based on Khalfan et al. (2007) is about understanding what others understand as reasonable. Khalfan et al. suggest that members in collaboration should behave professionally.

We noted that some procurement officers while meeting others in collaborating PDEs tend to be confrontational. For example, in one of the PDEs, the procurement officer expected to be instantly assisted by the technical procurement officer in the other PDE. The issue was about specifications and terminologies one of the suppliers had used (we noted this is a common problem for drugs that have different names yet they are the same in composition and purpose). This took over a week for the procurement officer in the National Drug Authority to confirm and advise. This was perceived as an intended and unnecessary delay, leading to confrontational scenes. We suggest PDEs should be more patient and appreciate the speed with which a collaborating PDE works.

Do more than expected
We found out that some PDEs do exactly or less than what is expected of them. PDEs in horizontal purchasing collaboration should do more than their usual expectation to each other. This has been supported by literature on developing trust (Khalfan et al., 2007); that trust emerges when peoplesô expectations from actions of others in the relationship are met or exceeded. This increases the level of reciprocity, and creates a sense of security as a PDE which has got more service than it expected feels a sense of dependence on the others.

PDEs should have a practice to reciprocate. A PDE should appreciate that once it goes an extra step to help others, this will be its ñmutual insuranceò against its own future gaps that require intervention of other PDEs. As Miller and Whitford (2002) stated, a more successful hunter shared the results of the hunt with those who proved less successful.

Informality
Whereas it is good to have formal structures and operations, PDEs should equally have informal ones. Each PDE should know its responsibilities with little reference to the contract. As Khalfan et al. (2007) say, the contract should be put on one aside to work on developing trusting relationships. They further argue that there is no need to refer to the contract all the time. For example, there was no initial contract for horizontal purchasing collaboration between the university PDEs considered in the study, but the collaboration went well and rolled over to even purchases of items that were not under the original project. As Nguyen and Rose (2009) argue, PDEs should establish personal rapport with each other, which leads to a perceived sense of personal bonding, identification and attachment. This develops trust and commitment.

Familiarity

We note that the PDEs are not yet close to each other to the level that is required to develop trust. For example to contact the procurement personnel in the Ministry of Public Service, the counterparts from the Ministry of Health had to seek approval from the Permanent Secretary. This creates bureaucracy and discourages commitment to collaboration. PDEs should through constant interactions ensure familiarity with others. Interactions should be both official and unofficial. This is according to Comstock and Fox (1995), who suggest that to develop dependence, there should be personal interaction to learn, respect and make use of relationship diversity. There should be small but many interactions between the PDEs as opposed to fewer bigger ones. Many interactions, however small they may be, make PDEs come closer together. This will increase information known about each other. This, according to Gefen (2000), will decrease uncertainty of future outcomes of horizontal purchasing collaboration between PDEs.

Efficient and effective communication

According to Lander et al. (2004) study, communication was found out to be an important trust building mechanism because good communication enables parties to understand each other. Korsgaard et al. (1995) call it ñthe sharing of relevant information and knowledge, necessary for trust buildingò.

From our exploratory findings, we noted that in terms of importance to horizontal purchasing collaboration, communication is rated at medium level; (mean = 3.6854; on a scale of 1 for Not at all important to 5 for Very important). Though this seems a satisfactory outcome, we still suggest it should be stepped up, if it is to improve trust, commitment, reciprocity, and dependence.

PDEs should have an improved system to disseminate information to all members of horizontal purchasing collaboration. Benefits so far realised from existing collaborations like in the case of JLOS should be used as an advocacy tool. PDEs should explore the use of Information and Communication Technology to improve sharing of information. For example the Integrated Financial Management System (IFMS) system which has improved sharing financial information in Uganda could also be extended to procurement function. According to Senge et al. (1994) support this; that use of communication tools is essential to building trust and commitment in collaboration.

This information should be updated. For example there is information asymmetry regarding the new suppliers that have come onto the market. Not all PDEs have reliable information about the most recent performance of a certain supplier in a different PDE. We noted instances where a black listed supplier in Uganda National Examinations Board PDE was given a contract to supply by National Council for Higher Education PDE. We noted that at the later gave out the contract, it had not yet received information from the former, yet they collaborate.

Communication will align perceptions and expectancies among collaborating PDEs. This will increase both trust and reciprocity. The information shared should be of high quality, authentic and complete (Mukherjee and Nath, 2007), to be depended on.

We find the Johari Window Model interesting in explaining and advising PDEs on how communication and awareness within the relationship should be handled. Note that though the Johari Window Model was designed for individuals, it is useful and has interesting insights for government and other corporations (Vujnovic and Kruckeberg, 2005).

The Johari Window Model suggests that individual collaborating unitsô awareness about each other is crucial in increasing mutual understanding (during our research, we noted PDEs have little information about each other). We argue as previous research has shown that mutual understanding leads to trust, commitment, reciprocity, and dependence among PDEs. The main point is, once a PDE opens its windows to others and others open theirs, trust, commitment, reciprocity, and dependence will increase. The model uses four perspectives: open, blind, hidden, and unknown.

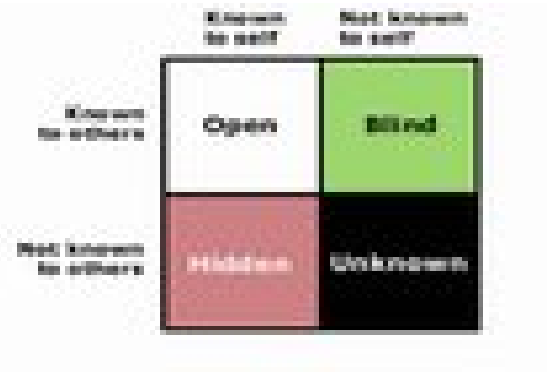


Fig. 8.2 The Johari Window Model

The open area
The open area has information a PDE knows about itself, which other PDEs already know. Public information is in this area, like; contracts committeesô establishment, accounting officer status, location of PDE, size of PDE, nature of purchases, spend budget as provided for in the national budget et cetera. Therefore there is absolute certainty in dealing between such PDEs. Therefore levels of trust, commitment, reciprocity, and dependence are maximised.

Ugandan PDEs should increase trust, commitment, reciprocity, and dependence by expanding this area. There are options to doing this:

- Reducing the blind area: Under this option, PDEs should disclose to each other all or most processes of procurement, information about suppliers, experiences with suppliers, performance levels, preferences of suppliers, specifications, et cetera;
- Reducing the hidden area: The PDE should disclose itself to the PDEs, on the basis of which they perceive an obligation to equally disclose themselves to the PDE.

The hidden area
This is when the PDE has information about itself, but other collaborating PDEs do not. The PDEs cannot know the insider information, and this should be disclosed to make the relationship closer, for example the experiences of a PDE with some suppliers. In Ministry of Education PDE, a supplier had long been blacklisted for lack of capacity. This information was not known to Ministry of Works and other PDEs

which had not dealt this the supplier. During one of the joint meetings, this information was disclosed, which came in time before Ministry of Works concluded a contract with the supplier, and was reconsidered. This made Ministry of Works also disclose its own blacklisted suppliers. This enhanced the relationship.

Hidden information between PDEs should be disclosed. Hidden agendas and individual PDE intentions and visions should be shared. This creates a more candid relationship. Fewer issues will remain secretive, and this will improve the levels of trust, commitment, reciprocity, and dependence. To avoid vulnerability fears, because of over disclosing private information to others, PDEs should disclose at a pace and depth they find relevant and comfortable at the time of so doing.

The blind area
This is a situation where other PDEs have more information about a PDE, which it had not realized. For example a PDE may not be aware of its human resource capacity, goodwill or reputation, but other PDEs are aware. Ministry of Education and Sports PDE did not realize it had one of the best perceived procurement officers until at a joint meeting where all other PDEs hailed them.

To improve the blind window, PDEs should be ready to receive feedback. A culture of non judgmental feedback should be encouraged, through training and making PDEs appreciate the importance of disclosure in horizontal purchasing collaboration.
Periodical meetings where collaborating PDEs freely express about each other should be arranged. This is important for the developing countries where negative feedback is seen as destructive criticism rather than constructive remark for further improvement (Aycan, 2002). Suggestion boxes should equally be used as has been recommended by previous researchers (Emiliani, 1998) to enhance feedback.

The unknown area
This is full of unknown issues about the PDE itself and other collaborating PDEs about it. This area, if uncovered, could be a major motivation for horizontal purchasing collaboration, because it involves exploration and new insights about each other in the collaboration.

As we found out in our results, PDEs should aim at increasing the level and intensity of collaboration before basing on its benefits. The benefits may be unknown at the beginning of horizontal purchasing collaboration. The consequences of actions the collaboration is to take may not be predicted with a lot of certainty. The differences between the PDEs at the start plus the unknown outcomes should motivate collaborating PDEs to explore together. Whereas such a situation may be the justification for PDEs to avoid collaboration, we encourage PDEs to venture and explore the unknown together, which will greatly build bonds of relationship between them.

Unknown situations may be relevant to PDEs which are relatively new and lack experience in horizontal purchasing collaboration. As PDEs participate in discovering the unknown aspects about themselves, care should be taken to ensure that the discovered areas are not transferred to hidden or blind area. They should be taken to increase the open area to increase the level of trust, commitment, reciprocity, and dependence.

PDEs should be given an opportunity to try new ways of doing work. The atmosphere should be a free one, so that new ways of collaborating emerge to increase the level of trust, commitment, reciprocity, and dependence. In the figure below, we show how the open area can be increased, so that trust, commitment, reciprocity, and dependence can be improved.

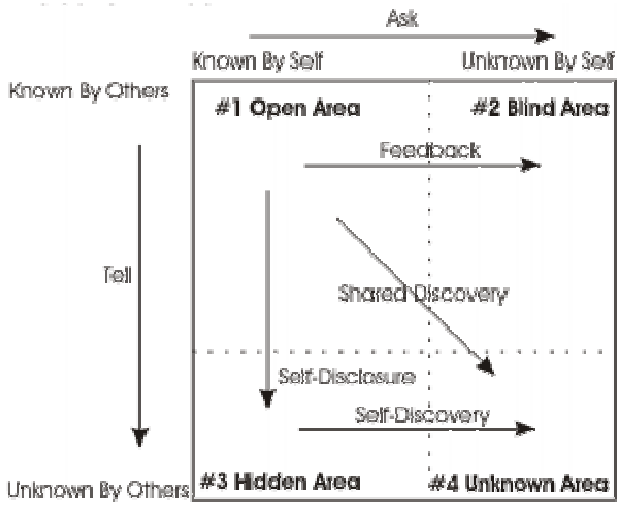


Fig. 8.3 Improve communication using the Johari Model

Challenges of using the Johari Window Model to build relationships

One of the challenges is that disclosure of some information to collaborating PDEs may sometimes not be strategic. This may include increased awareness of negative aspects and therefore rejection (Kruckeberg and Vujnovic, 2005). However, we note that whereas this may be more of a problem in the private sector where information asymmetry can be used as a competitive tool against similar organisations that lack information at a certain time, in the public sector, holding onto information may not benefit a PDE much, after all, profit is not the key ultimate target. But if this is a source of worry, PDEs can strategically disclose private information to each other in incremental fashion, so that the outcomes of the previous disclosure are evaluated to determine the extent of subsequent disclosure(s).

PDEs should be willing and emotionally ready to receive feedback on the blind sports. Feedback should not make the PDE perceive incompetence and inadequacy. Trust, commitment, reciprocity, and dependence will increase if feedback is received in good faith, and if it uncovers flesh possibilities and options.

Use of the incremental approach

Based on Greenbank (2003), a more in-depth understanding of collaborative issues is needed, and therefore suggests an incremental approach to foster trust and commitment and ability of the involved parties to learn from their experience.

From our findings, in the university collaboration, guidelines and structures were put in place for purchase of the NPT project related items. However, collaboration rolled over to other non-project activities. We therefore suggest that PDEs in collaboration should not necessarily include all purchases at once, especially in the initial phases of their collaborative relationship. They should first concentrate on a few and increasingly add the remaining purchases.

How to improve behavioural factors based on institutional theory

Problem solving mechanism

Once a PDE realizes it has made a wrong response, it should seek to remedy the situation with the concerned PDEs. PDEs should point out themselves the errors made to those wronged. Mistakes at the previous encounter should first be solved before proceeding, so that the negative perceptions about others are reduced. This increases reciprocity, which in turn stabilises relationships (Longenecker et al., 1994)

PDEs should be swift at solving problems that may come up between them. We noted that in the JLOS collaboration, the PDEs were ñpointing fingersò at each other, which may not be supportive to the development of trust, commitment, reciprocity, and dependence. Alternative resolution mechanisms could be useful. Problems should be regarded as opportunities to learn from and avoid similar situations in future.

Implement promises

Trust can be built through promise fulfilment (Papadopoulou, 2001). According to Papadopoulouôs three step model of trust building, promises made, should be enabled and should be kept. Carlzon (1987) argues that enabling promises allows organisations to depend on and trust each other, and that keeping promises is perceived as a positive signal for future interactions.

Each PDE should have an action plan and do what it promised to do. We note from our results the question *"The PDEs we collaborate with always keep their promises"* was scored low (mean=2.86, on a range of 1 ï 5). This is an indication that promises are not well kept and should be improved, to further improve reciprocity.

Involve top management

From our study, we note that procurement officers are not members of top management teams in PDEs. Important decisions are made by the steering committees (for ministry PDEs) or boards (for parastatal PDEs) or councils (for university PDEs). Only 5 out of 116 PDEs (4%) considered in our study had principal procurement officers at the time of research. Officers at this rank and below do not usually sit in the top management meetings to have a ñhelicopter view of the PDE and therefore make authoritative decisions regarding the collaboration. As Rozenmeijer (2000) stated, attention of top management is needed to stimulate and support commitment to and trust in the cooperation. Thus the top officers of respective PDEs should be available to give support and guidance. One long lasting solution to this problem would be to promote procurement officers to higher ranks like assistant commissioner, commissioner or director of procurement ranks, to give them the legitimacy to take strategic decisions regarding horizontal purchasing collaboration.

As found out from the JLOS case, lead time of supplies greatly improved from over 60 to 30 days, because of the structures put in place. We further recommend that PDEs in horizontal purchasing collaboration should institute committees including top officials, who are able to take decisions instantly. Including different experts from PDEs will enable actions executed in one or few meetings, since expertise is readily available from the pool of diverse membership. From the same case, we suggest that committees should be chaired or constituted of top officials to give the collaboration political support and policy guidance. The Permanent Secretaries (for ministry PDEs),

University Secretaries/Principals (for university PDEs) and Executive Directors/Company Secretaries (parastatal/commission PDEs) should be part of the various committees.

Involve stakeholders
The JLOS success story could partly be explained by the involvement of stakeholders. Stakeholders should be involved because they have interests in the collaboration, so they can affect it or can be affected (Freeman, 1984). Stakeholders should be sensitised about horizontal purchasing collaboration and won over. They can affect the collaboration if they are not made part of its philosophy. Such stakeholders include: users of supplies/works/services, donors, civil society and the suppliers. Identification of stakeholders should involve a systematic gathering of information to determine whose interests should be taken into account while starting and operating a horizontal purchasing collaboration. This will make them believe in the collaboration and get committed to it.

How to improve behavioural factors based on resource dependence theory
Experience
PDEs should regularly work together. This creates more trust, as Khalfan et al. (2007) argued that in a relevant period of time, people build trust by working together. One needs experience and to learn to trust. Procurement officers should not be frequently rotated especially if they have not yet had enough experience. This will make them grasp the art of collaboration and develop tacit knowledge that is particular and vital to the specific collaborative initiative. Since it is a Government of Uganda requirement to transfer its civil service personnel after some time, we suggest that these officers could be transferred from a PDE to another PDE within the existing collaborative relationship. For example, an officer in the Ministry of Justice and Constitutional Affairs could be transferred to the Ministry of Internal Affairs or any other PDE within the Justice Law and Order Sector. This will create continuity and repeated fulfilment of obligations amongst collaborating PDEs.

Walk the talk
Trust, commitment, reciprocity, and dependence in collaborations will be earned over time. This is supported by Karlsen et al. (2006), who in addition, argue that these will develop by listening, talking and making sure that you ñwalk the talkò. This is also noted by Berkun (2005), that trust will not be developed through inconsistent behaviour on matters of importance, saying one thing and doing another.

We note that these are still low or moderate in Ugandan PDEs. This may be because of the short time of collaboration. One way to increase trust, commitment, reciprocity, and dependence in a short time and subsequently the benefits of collaboration is to ñwalk the talkò. Actions by PDEs should match the deliberations reached at horizontal purchasing collaboration meetings. This gives the collaborating PDEs the confidence that things will work well even for future activities. This also reduces the ñtesting periodò for which PDEs give themselves before they totally get committed to the collaboration. We note that most resolutions are not put into practice. For example, only 45% of the deliberations in the Justice Law and Order Sector collaboration are implemented (JLOS Report, 2006).

Timely interventions

There should be timely and substantive responses. In the JLOS case, after collaboration under the SWAP arrangement, response to cases improved to 14 days from 29, 37, 39 under the Ministry of Justice and Constitutional Affairs, Ministry of Gender and Social Welfare and Uganda Prisons Service PDEs respectively. As a result, some misunderstandings arose. In such circumstances, Bohm et al. (1991) suggests that collaborating parties should move more rapidly to resolve such dissonance in the collaboration. Bohm et al. further advise that this intervention should start by instinctively seeking commonality rather than diversity to increase chances of positive results. Mistakes should be looked at as a consequence of being human (Khalfan, et al., 2007).

Deadlines make all PDEs work towards meeting them. The PDEs in collaboration should set interim joint deadlines and celebrate when these are met.

There should be ñstretch goalsò that challenge PDEs to get committed towards the tasks of the horizontal purchasing collaboration and makes PDEs move out of their comfort zones. This working together towards a time bound but important target for a group develops the level of trust, commitment, reciprocity, and dependence among PDEs in the collaboration.

Develop competences
Based on the transaction cost theory (Williamson, 1985), partners especially in initial phases of collaboration will try to maximise individual benefits while minimising individual risks (Eisenhardt, 1989). The collaborating parties therefore look up to institutional development of the relationship to seek the confidence, since institutions, even through both formal and informal means guide patterns of behaviours (Scott, 1995). Therefore institutional competences through capacity development will facilitate trust development (Zucker, 1986). Building competences is more needed in the developing countries where they largely lack.

We found out that competence influences trust more than other trust dimensions. If there is a technically competent officer in a PDE, others get committed to keep in the collaboration. We recommend that PDEs should start capacity building programmes to make the employees more competent. PDEs should start a competence based human resource management system, which largely lack in the Ugandan public sector. The competences of a job should be first established and the personnel to take it up should match its requirements. This is not currently being done in the Ugandan PDEs. For example some administrative staff in the Judicial Service Commission PDE were transferred to work in the procurement and disposal unit, with no sufficient short and long term training programmes.

In the figure below, we show how horizontal purchasing collaboration should be handled. It indicates that once the antecedent actions are carried out, the behavioural aspects (trust, commitment, reciprocity, and dependence) will increase. This in turn increases the level of horizontal purchasing collaboration and subsequently increases the benefits of the collaborative relationship.

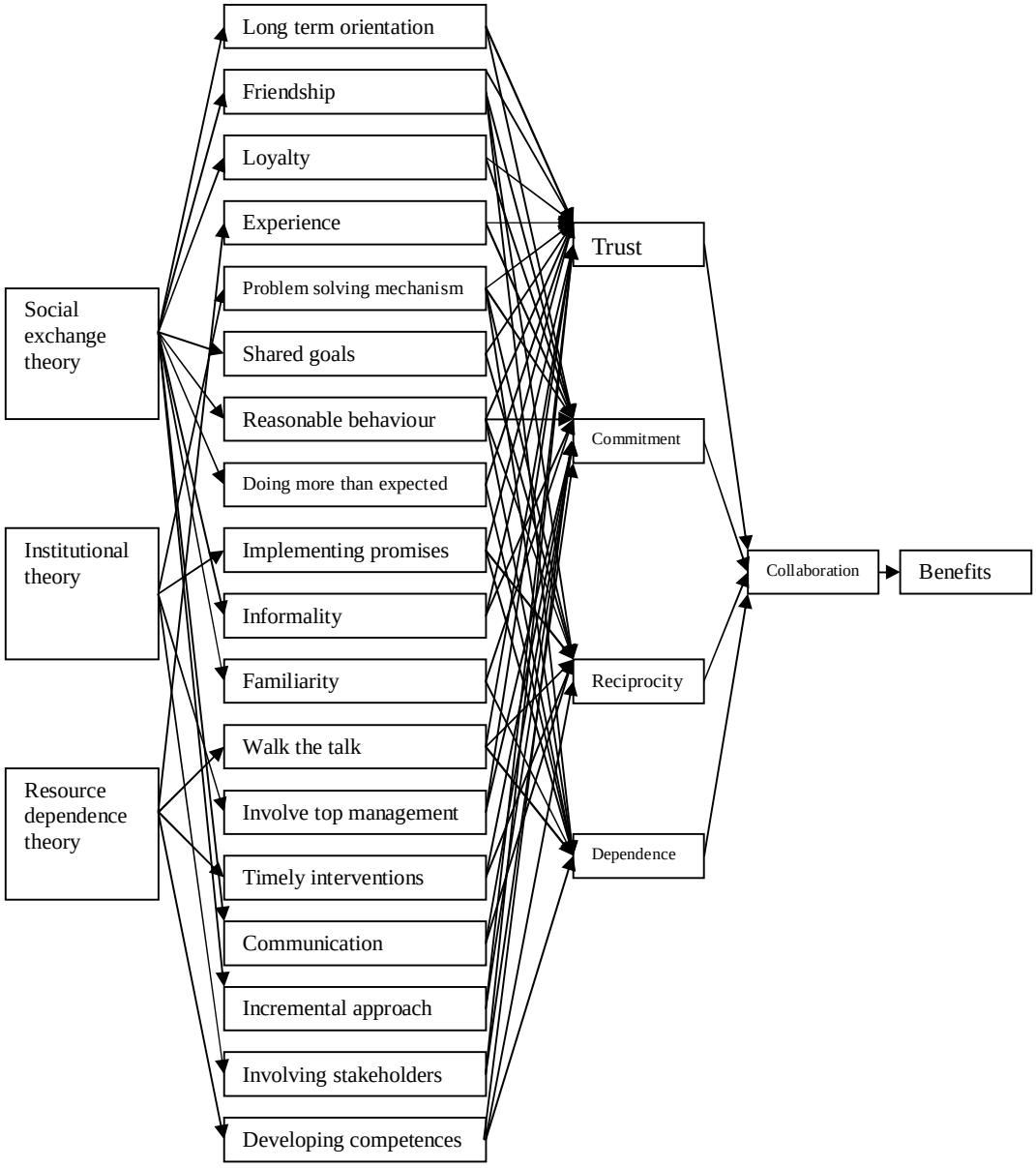


Fig. 8.4 How to improve behavioural factors (based on theory) in collaborative initiatives

Our suggested recommendations on how to improve trust, commitment, reciprocity, and dependence

Based on the findings of our study and anchoring these findings to the existing literature, we summarise in Figure 8.5 below our recommendations on how trust, commitment, reciprocity, and dependence can be improved in the Ugandan PDEs collaborative initiatives. This is our guide to practitioners of horizontal purchasing collaboration on how to build trust, commitment, reciprocity, and dependence in the different development phases of a purchasing collaborative.

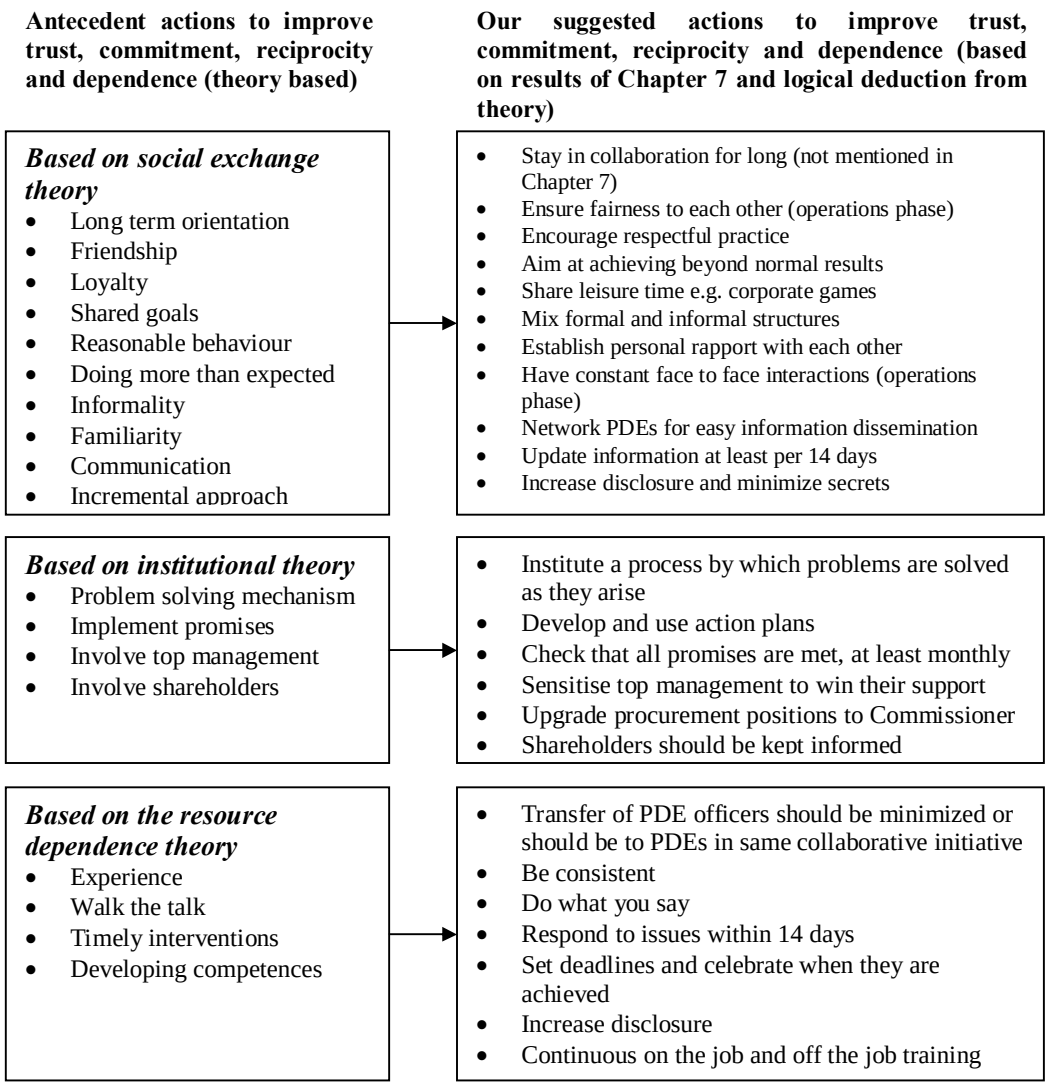


Fig. 8.5 A guidance for improving behavioural factors

We note that improving behavioural factors of horizontal purchasing collaboration is a practice managers should do during their day to day operations. There should be stability and a long-term perspective to collaboration which necessitates support of top management. To have stability, it may require the purchasing related staff to keep in their work positions for relatively long period, to be able to grasp issues in the collaboration.

Being fair to each other is an important practice in collaboration, which further increases behavioural, factors especially commitment and reciprocity. This is more relevant for developing countries like Uganda where lack of consistence in partnerships has been noticed (Tumwine, 2006). We also argue that a mix of formal and informal dealings amongst PDEs in collaborative initiatives is important for collaboration growth. We further note that negative issues that come up in collaboration should be well handled and in time, before they get out of hand.

Mixing formal and informal structures makes PDEs in collaboration devote more time together and improves mutual confiding and reciprocal services. As argued by Malhotra (2009), the PDEs are then likely to see each other as well intentioned. We also argue that establishing personal rapport is important, because it ensures that even while unconscious of the surrounding factors, in reality PDEs still connect with each other. They all operate at the same level and expectations. This creates a basis for sustaining behavioural factors.

Based on institutional theory, we also argue that once problems are solved as they arise, and promises are met, the doubts about future operations, especially for the newly established collaborative initiatives, begin to disappear and more trust can be developed.

Based on resource dependence theory, we argue that being consistent and doing what you promised to do, will increase the level of behavioural factors. This may be more relevant for Uganda where planning is not done or if done often not followed (Turyatunga, 2008).

8.4 Method

Data collection and procedure
There are several methods possible for carrying out the check. One method is to ask PDEs to do what we have found out from the study and later check how it has improved collaboration. This may take a long period of time, as testing would require a longitudinal design.

In our study, we use existing horizontal purchasing collaboration initiatives to cross-check our guidance with what has been happening and whether it is possible and practical to adopt our guidance. We used the interview method to collect data. We explained our findings about antecedent actions for improving behavioural factors and suggested a model for starting and operating a collaborative initiative to the respondents before the start of each interview session.

We used three guiding questions that dealt with missing, redundant, and most important parts of the suggested guidance. These are stated below:

- What do you miss in our guidance on (a) the suggested actions for improving behavioural factors and (b) the model to start and operate a horizontal purchasing collaboration initiative?
- What activity out of the list of suggested actions by the guidance is least important for improving the success of a horizontal purchasing collaborative?
- What parts of our guidance in particular would you recommend to new starters?

Data source
We used four cases to check the suggested guidance. The use of four cases is adequate (see Eisenhardt, 1989; Miles and Huberman, 1994; Perry, 1998), since the replication rather than sampling logic, will yield reliable conclusions (Yin, 2004). The use of a case study as a tool to check understanding is well established (Voss et al., 2002) and the use of small numbers of case studies as a knowledge building tool to understand

deeply as is required in developing countries with not yet established strategies is increasing in operations management (Decoene and Bruggeman, 2006; Yauch, 2007).

The four cases include the JLOS case (ten PDEs with about eight years of existence and formal structure), the ministry collaboration (seven PDEs with about four years of existence and informal structure), the state enterprises collaboration (five PDEs with about two years of existence and informal structure) and the statutory bodies collaboration (four PDEs with about two years of existence and informal structure) (see Appendix I for an overview of the members of the collaborations). The JLOS case was involved in the development of the model whereas the other three cases were not involved in the development. The later three also had experiences with horizontal purchasing collaboration. The JLOS case was included in the check to have their comments on the correctness and usefulness of the suggested guidance, since there was a time difference of close to two years between the data collection for the model development and testing the results.

We interviewed key informants from each of the PDEs in the four cases, mainly the Head of Procurement section or the Chairman Contracts Committee or any other senior and procurement knowledgeable personnel. In total, we interviewed 26 key informants. We perceived the views of senior and relatively more knowledgeable members as representative enough of their respective PDEs. The interviews were carried out in 2009 and early 2010. Each interview took about one hour. The guiding questions were used in the interview sessions. We recorded the responses on paper, since the option of tape recording was not appreciated by some of the respondents.

8.5 Results and discussion

In this section, we discuss the findings and implications of our check. We present our results according to each guiding question we posed to our respondents. The first question deals with actions that need to be added to the guidance. The second question deals with redundant actions. The final question deals with actions that are perceived to be very important.

Missing actions
In general, the respondents found our suggested actions for improving the behavioural factors relevant. However, they suggested that the following be added.

They argued that establishing a central office for coordinating the joint purchasing activities is important. Such an office would have a coordinator, who checks on the activities on a day to day basis and makes a follow up. In addition to this, the respondents indicated that physical resources for the collaborative initiatives like furniture, stationery, et cetera should be put in place.

We argue that respondents think it is important to have a central office for coordinating the joint purchasing activities, since the central office makes sure enough resources are available to make the collaborative initiative a success. This confirms the importance of building capacity which is part of our guidance.

It was also noted that the collaborating PDEs should avoid having dominant entities as this may hamper trust and commitment. However, we note that this may not be a

major factor since most government PDEs are similar, with similar mandate and almost the same level of resources.

Respondents also missed having opinion leaders included in the whole organisational arrangement. Respondents argued that in the developing countries, opinion leaders are important in convincing the rest of the people that a strategy is worth undertaking, since most of the people lack adequate analytical skills to make optimal decisions (Turyatunga, 2008). Opinion leaders are important stakeholders in an organisational unit.

Right timing was also mentioned as a factor necessary for horizontal purchasing collaboration. Usually in times of urgency, the need to collaborate and solve an urgent common problem is explicit. Indeed, when there are no bigger challenges foreseen, there is less interest in starting a collaborative initiative, but when there are urgent challenges, as is usually the case for developing countries where planning is not done well (Tumwine, 2006), then a new collaborative initiative may thrive. The respondents perceive importance in creating a sense of urgency/relevance for collaborative purchasing.

Other missing tasks mentioned by the respondents include establishment of a series of sensitisation seminars to ñsellò collaborative purchasing in the initial stage and to ñsellò the positive outcomes and allay fears for the negative outcomes at the operational stage. Whereas we appreciate these suggestions, we note that our guidance already includes establishing structures and committees (as was the case with the JLOS initiative); establishing an ICT communication website, which are likely to reduce the need for a central coordinating office. Besides, basing on the transaction cost theory, a common information and communication platform supports standardisation, thus further reducing the need to have a central coordinating office.

In our guidance, the respondents also missed the challenge of handling influence from the ñbiggerò PDEs, those that are likely to influence others in the collaboration. Therefore a sense of equity should be instilled in the operations of the collaboration, for example by having rotational responsibilities, so that all member PDEs perceive equality. We argue that although trust will (partly) substitute the formal control mechanism as the collaborative initiative develops, it is still important to address a sense of equity in intensive collaborations that are not coordinated by a third party. Therefore, we add the suggestion of the respondents to our guidance.

Redundant actions

We requested the respondents to indicate the activity out of the list of suggested actions that is least important for improving the success of a horizontal purchasing collaborative in Uganda. The actions that are perceived to be most redundant are shown in Table 8.1 (see Appendix L for the complete list of frequencies).

Table 8.1 Redundant actions

Description	Mentioned (in %)
Increase disclosure and/or minimize secrets	27
Network PDEs for easy information dissemination	15
Update information at least per 14 days	8
Respond to issues within 14 days	8
Transfers to PDEs in same collaborative initiative	8

Note that actions with a frequency of 0 or 1 are not listed in the table.

We note that the suggested actions ñincrease disclosure and/or minimise secretsò and ñnetwork PDEs for easy information disseminationò were most frequently mentioned as least important activities. When we further asked the respondents why they think disclosure may not be as important as other actions, they said the time the PDEs have been collaborating is too short to disclose a lot of information to each other. The PDEs may also fear disclosing information due to the opportunism within the collaborative initiative (Pesamaa and Hair, Jr, 2007; Schotanus, 2007). With diverging strategic objectives, even in the public sector in developing countries, most information is regarded as secretive. This finding differs from results of studies in the public sector in developed countries (e.g., Schotanus, 2007), where disclosure is typically not an important issue.

We note that all the other actions are mentioned by no, one or only two respondents. Therefore, we argue that these other actions are not redundant.

Most important actions

We gave our respondents a list of our suggested actions for improving collaborative initiatives and asked them which actions they consider to be important for new collaborative initiatives. The actions that are perceived to be most important are shown in Table 8.2 (see Appendix M for the complete list of frequencies).

Table 8.2 Most important actions

Description	Mentioned (in %)
Sensitise top management to win their support	22
Align goals of all collaborating PDEs	20
Establish personal rapport with each other	19
Develop and use action plans	19
Respond to issues within 14 days	18
Have constant interactions	18

Note that actions with a frequency of 15 or lower are not listed in the table.

The actions that respondents suggested most to new starters include ñsensitise top management to win their supportò, ñalign goals of all collaborating PDEsò, ñdevelop and use action plansò, ñestablish personal rapport with each otherò, ñhave constant interactionsò and ñrespond to issues within 14 daysò.

We note that the factors ñincrease disclosure and/or minimise secretsò and ñrespond to issues within 14 daysò are identified as least important activities to be done on the suggested actions for improving horizontal purchasing collaboration (see Table 8.1). These factors are also recommended for new starters (see Table 8.1 and Appendix M). This may be that in the first case, respondents indicated that they are not very willing to share secrets and respond quickly, while in the later, they indicate that it still may be important to share secrets and respond quickly.

We note that the first three actions aim at making collaborating start off well. This momentum (also see Section 6.6) gives the collaboration strength to survive the remaining stages. We note that the other three actions aim at operating the collaboration in a professional manner. These actions help in providing the collaboration sufficient resources to carry out the joint tasks.

Sensitisation of top management to win support is rated as the most important action for starting collaborations. As a contribution to literature, we argue that for developing countries where the procurement staff who carry out operational activities are at lower ranks in their respective organisational hierarchy, there should be adequate sensitisation of top management to appreciate the rationale of collaboration. This may be different in developed countries where the procurement officers may be relatively at higher positions in the organisational hierarchy. In such a case, sensitisation of top management may not come first.

8.6 Limitations

We carried out a check on our suggested guidance, using a snapshot method. We nonetheless appreciate an alternative method of checking whether our suggested guidance was useful for collaborative units after a reasonable period of its adoption. This could not be done, given the time and other resource limitations of our study.

Whereas a number of four cases as we used in our study is acceptable in qualitative study designs (Eisenhardt, 1989), we note that our conclusions may be limited to analytical rather than statistical dimensions (Yin, 1994).

8.7 Conclusion

We set out to suggest practical actions to improve behavioural factors for horizontal purchasing collaboration through literature, and also to check the relevance our suggested guidance.

Regarding the actions to improve behavioural factors, we conclude that the purchasing related staff should keep in their positions for a relatively long period to create stability and grasp issues of collaboration. We also note that staff of the newly established collaborative initiatives in the developing countries need more interactive time, both formal and informal to confide in each other, the privately held perceptions on collaboration. We also conclude that being consistent and doing what collaborating entities promised to do to each other, could develop the trust and commitment in the collaborative initiatives

Regarding the practical, we note that we had missed including opinion leaders as important stakeholders, which is a party that to the best of our knowledge has not been recognised in the existing literature. We also recognise from our check that timing of when to collaborate is an important factor in deciding when to start a collaborative initiative.

In our check, we got positive feedback that our suggested guidance was largely realistic, apart from the aspects relating to information disclosure. We therefore argue, contrary to public sector literature based on the developed countries context, that disclosure of information should be done cautiously.

Chapter 9 – Wrap up

9.1 Introduction

In this last chapter, we wrap up the whole thesis, to give a summary of what our work involved. We introduce the chapter, and then give a summary of our research goals, questions, and hypotheses. We mention the method used in all the chapters and also give the main findings and conclusions of the study.

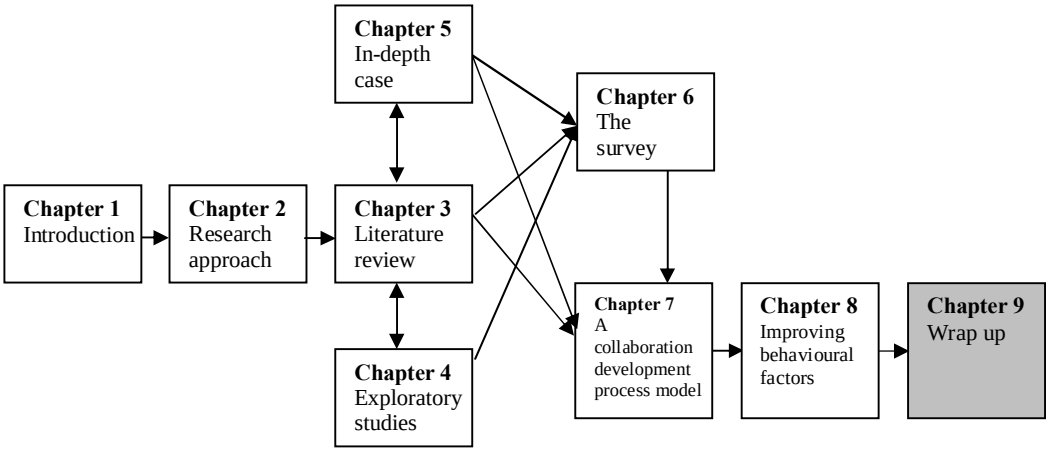


Fig. 9.1 Research outline

Horizontal purchasing collaboration is a popular practice in many countries. Considering its well-publicised benefits, developing countries and Uganda in particular, should be the home of horizontal purchasing collaboration. Nevertheless, horizontal purchasing collaboration has not yet been frequently and well practiced.

Whereas several studies have been carried out on horizontal purchasing collaboration in the public sector in developed countries, there is still a remarkable lack of literature on horizontal purchasing collaboration in developing countries and Uganda in particular. Existing studies do not give a clear explanation for the lack of well functioning horizontal purchasing collaborative initiatives in developing countries. Although, there is an indication that behavioural factors may play an important role. This thesis therefore investigates the role of behavioural aspects in horizontal purchasing collaboration.

In this thesis, we define horizontal purchasing collaboration as the operational, tactical, and/or strategic cooperation between two or more organisations in one or more steps of the purchasing process by pooling and or sharing their purchasing volumes, information, and or resources in order to create symbiosis (Schotanus, 2007).

To enable easy reading, in the next sections we restate our research, questions, and hypotheses. Since we have used different methods for different chapters, we include a summary of the methods used for each chapter. We also highlight the major findings, limitations, and future research.

9.2 Research goals, questions, and hypotheses

The overall research goals of this thesis are threefold. First, to understand what is happening with respect to behavioural aspects in horizontal purchasing collaboration in developing countries (Uganda in particular). Second, to understand why and how the behavioural aspects influence horizontal purchasing collaboration. Third, to know how to apply the understanding of the behavioural aspects in horizontal purchasing collaboration in developing countries (Uganda in particular).

The first goal requires a descriptive design since it seeks to increase understanding of horizontal purchasing collaboration, provides a basis for improving practice, and gives more insights to horizontal purchasing collaboration in Uganda. The second goal requires an analytical design since it seeks to develop a collaboration development process model. The third goal requires both a prescriptive design and an analytical design since it seeks to explain how to apply the understanding of behavioural aspects. It provides a practical guidance on how to improve behavioural aspects in horizontal purchasing collaboration, and also carries out an empirical check of the suggested guidance.

The thesis is arranged according to chapters, each with an objective as follows:

- To present and justify the research strategy we adopt to realise our goals, to link our work to the general philosophy of science, to show how our research differs from other researches done, and to present our methodological points of departure (Chapter 2);
- To review existing literature on horizontal purchasing collaboration, to place our study into the context of existing knowledge, to identify knowledge gaps, to formulate hypotheses, and derive insights for application of horizontal purchasing collaboration (Chapter 3);
- To better understand the current state of horizontal purchasing collaboration in Uganda, through two exploratory studies, to further develop hypotheses and derive insights for the application of horizontal purchasing collaboration (Chapter 4);
- To draw lessons from a practical case of the Justice Law and Order Sector (JLOS) to further develop hypotheses and derive insights for the application of horizontal purchasing collaboration (Chapter 5);
- To carry out a survey to test the hypotheses posed (Chapter 6);
- To suggest a collaboration development process model in the developing countries context, by filling in the gaps identified in the existing knowledge (Chapter 7).
- To provide a guidance on how to improve behavioural factors and to empirically check the relevance of the guidance (Chapter 8).

9.3 Research approach

In this thesis, we use several methods. Mixing approaches is acceptable due to the ontological uncertainties that still exist in social sciences (Arndt, 1985; Creswell, 1994; Hunt, 1991). In relationship and management studies, there is a notable consistent use of combined methodological approaches (Milliken, 2001; Schurr, 2007).

Most of Chapters 3, 4, and 5 are explorative in nature and are written in the context of discovery (Reichenbach, 1938). This is justified since it matches with our research goal of understanding. The design is qualitative and explanatory. Chapter 6 is a survey and largely takes a quantitative design. Chapters 7 and 8 take the qualitative and explanatory design to explain the application of the results of the previous chapters. We provide a short overview of specific methods used in each of the chapters in the remainder of this section.

In Chapter 4, we aim to better understand the current state of horizontal purchasing collaboration in Uganda through two exploratory studies, thereby developing hypotheses for testing and deriving insights for the application of horizontal purchasing collaboration.

In exploratory study 1, we pose specific research questions aimed at understanding the state of horizontal purchasing collaboration in Uganda. We studied 21 ministries and two universities. We used a self administered questionnaire (to Procurement and Disposal Unit staff) and interviews to obtain a deeper understanding of the issues and to improve validity of our findings (Den Hertog and Van Sluijs, 1995; Webster, 1991). Interviewees were at the topmost levels; at the rank of principal procurement officer in their PDEs, and therefore assumed to be more authoritative in procurement issues.

In exploratory study 2, we specifically set out to understand the factors for initialising horizontal purchasing collaboration in Uganda. A questionnaire was used to get responses from 89 procurement officers representing 77% of the central government entities in Uganda at the time of the study.

In Chapter 5, we analyse a practical case of the Justice Law and Order Sector (JLOS) to draw lessons for hypotheses development. To obtain a deeper understanding of the issues that seemed novel at our beginning of the study, a case based research methodology, was selected for use (Mukherjee et al., 2000; Yin, 1994). We selected the JLOS case because JLOS is relatively experienced in purchasing collaboration compared to other collaborative initiatives in Uganda. We used JLOS reports, research papers, and procurement records to carry out a document analysis and deduce meanings. We also interviewed two key informants, one from the JLOS secretariat and another one from the Ministry of Justice and Constitutional Affairs policy and planning department. These were important in establishment and operationalisation of JLOS collaborative initiative.

In Chapter 6, we carry out a large scale survey to test the hypotheses posed. The study population includes all the PDEs in the public sector. We operationalised variables according to different and previously used literature sources to ensure construct validity in our measurement. We used a researcher-administered questionnaire to collect data. We carried out a pilot test mainly to ensure content validity (Mitchell, 1996) of the questionnaire. We pre-tested the questionnaire on a focus group and made the necessary adjustments, before the final questionnaire was used. To ensure internal consistency of the instruments, we used the Chronbachôs alpha test. We used factor analysis to test for construct validity of the variables. The tests showed that the data collection instrument was valid.

In Chapter 7, we develop a collaboration development process model. We carry out a qualitative study to fill in the identified knowledge holes (about tasks, stakeholders, and challenges).

We use the focus group technique, because in addition to investigating what procurement officers (the participants) think, it uncovers why they think as they do. We used eight focus groups, each with ten participants. Four sessions per group were held, each session discussed a research objective. To ensure reliability, we developed themes that matched the objectives, and these kept the discussions within expected limits. We encouraged involvement of all participants to avoid the large group effect. Matrix displays and tables were used to analyse the data (Miles and Huberman, 1984, 1994).

In Chapter 8, we carry out a study, based on theory, to suggest how behavioural factors should be improved. We then empirically check the relevance of the guidance.

We use the already existing horizontal purchasing collaboration initiatives, to cross-check our guidance with what has been happening and how possible and practical it is to adopt our guidance. We used the interview method to collect data. We used four cases to check the suggested guidance; JLOS, ministries, state enterprises, and statutory bodies. We interviewed key informants from each of the PDEs, mainly the Head of Procurement section or the Chairman Contracts Committee or any other senior and procurement knowledgeable personnel.

9.4 Findings and conclusions

In this section, we repeat the main findings and corresponding conclusions of the thesis.

Understanding what is happening with respect to horizontal purchasing collaboration in developing countries

We found out that collaboration in general has existed in government departments; it is not entirely a new concept when applied to the purchasing function. We found out that urgency is an important factor to motivate PDEs to go join a collaborative initiative. We therefore argue, similarly as Schotanus (2007) but contrary to several other sources, which list the initialising conditions for collaborative purchasing, that urgency of the deal should be one of the recognised and published critical factors and/or benefits for horizontal purchasing collaboration in developing countries. This is relevant in Uganda, where planning is often done poorly, and by the time procurement tasks are undertaken, urgency is needed to expedite them.

We found out that collaborative activities are mainly in the initial stages of the procurement cycle, and that contractual issues that involve secrets inhibit horizontal purchasing collaboration in the final stages of the procurement cycle.

It was interesting to note that in the university category, where there was a formal structure of how collaboration was to be done, collaboration was not only in the purchases of items that were originally planned for, but also extended to other items that were out of this collaborative arrangement. We therefore argue that starting collaboration on a small scale can be ñan eye openerò to the benefits of collaboration.

The PDEs can start on a small scale and use the incremental approach to roll out to other activities. This argument may be relevant for developing countries, where there are relatively fewer human and financial resources than in developed countries, and starting relatively complex processes at a small scale is likely to be the realistic decision.

We noted that behavioural factors are important for successful horizontal purchasing collaboration, especially in the initial stages of collaboration. Whereas behavioural factors are important, we also noted that from the findings, the levels of trust, commitment, reciprocity, dependence, and level of collaboration are medium in Uganda. Thus there is still need to further improve these factors. The actions we suggested can help managers of collaborative initiatives in improving the factors.

We also considered an in-depth case about horizontal purchasing collaboration. From the case, we found out that there should be peer reviews and wide consultations across all institutions in the collaboration for the member institutions to ñownò the decisions. While each institution remains independent, it should monitor each otherôs performance. From our interviews with the JLOS officials, we noted that the frequency with which the inter-institutional meetings take place is very important. This makes institutions develop positive feelings towards each other and trust is learned and reinforced over successive iterations of transactions.

We noted that as the collaborative initiative starts, conflicts are likely to come up between the participating members. From the case, we learn that a forum for all the stakeholders of the collaborating entities helps to resolve emerging conflicts.

We also note that contrary to findings by Schotanus and Telgen (2007), free riding may not be an important motivator for PDEs not to collaborate. This is because though collaboration in Uganda is still relatively new, the collaborating entities know each other fairly well, and since they are all public entities, they are sure of continued future collaboration.

Whereas we agree with Fine and Whitney (1996) that PDEs may not find horizontal purchasing collaboration interesting because of fear of dependence of knowledge on collaborating PDEs, and therefore reducing capacity for own future challenges, we note that this may not be important for Ugandan PDEs where no single PDE monopolises knowledge, since all procurement officers are relatively new. As such, there may be less fear of dependence of knowledge to reduce capacity for future challenges.

Understanding why and how the behavioural aspects influence horizontal purchasing collaboration

Our results show that affective commitment (pride in the collaboration), more than instrumental commitment (fear of costs of switching off from current collaboration) and normative commitment (based on strong values and beliefs) cause variability in commitment. This could be because pride is more important in the initial phases of collaboration compared to the fear of switching costs; which would be minimal at the initial stage, and with less time for values and beliefs to evolve. Indeed, most collaborative initiatives in the developing countries are in initial stages. To managers, it is a lesson that they should build a sense of pride and belonging of their PDEs in the

collaborative initiative. Managers of collaborative initiatives should ensure that PDEs develop a sense of independent self reflection and positive evaluation to develop pride. This is relevant to starting collaborative initiatives in Uganda as it compensates for the instrumental commitment dimension, which is likely to reduce motivation for collaboration. To the best of our knowledge, no previous studies about collaboration have come up with this finding.

We also argue that individual competences within the collaborating PDEs is an important factor in determining trust and horizontal purchasing collaboration. Even when most personnel in PDEs have similar qualifications, not all of them have yet attained the required level of skill and experience to perform specific technical tasks and function successfully. Thus, PDEs are motivated to collaborate with those that have specific expertise.

We noted that the correlation between trust and the level of collaboration is higher than the correlation between commitment and the level of collaboration. This can be explained by the existing literature. Trust refers to feelings about the relationship and commitment represents a manifestation of actions within the relationship. With relatively new collaborative initiatives in developing countries, fewer actions and experiences have been exposed. Therefore trust is likely to improve the level of collaboration more than commitment. This should encourage managers of collaborative initiatives, in the start up phases to ensure that participating entities have positive feelings about each other. This reduces the entitiesô interest in the option of mainly considering financial and other analytical justifications to collaborate.

We note that reciprocity has a low correlation with collaboration. This may be because the give and take actions do not take place in the initial phases of collaborations. This could also be explained by the PDEs which do not respond to each other in similar ways or take long to reciprocate. Managers of collaborative initiatives should ensure that the reciprocating behaviour should be developed, especially the ñpositive for positiveò rather than the ñnegative for negativeò type of behaviour. Reciprocity will ensure that the social norms: the behavioural expectations within the collaborative initiative are maintained.

We note that the relatively higher correlation between dependence and collaboration compared to correlations between commitment and reciprocity with collaboration may indicate that PDEs practice collaboration, not mainly because of trust, commitment or reciprocative reasons, but more importantly because the other PDEs provide important and critical resources for which there are few alternative sources of supply.

The moderate correlation especially for collaborations that are still emerging signals the need for collaborating PDEs to develop a critical minimum mass in carrying out pooled activities together to realise significant benefits.

We note that there is a remarkable difference between correlations of behavioural variables (commitment, trust, dependence, and reciprocity) with the level of collaboration and the benefits of collaboration. The lower correlation of the behavioural variables with the benefits of collaboration than with the level of collaboration may be attributed to the moderating role of the level of collaboration. A

higher level of collaboration involves a higher degree of involvement by the entities and is likely to increase the benefits of collaboration.

To know how to apply the understanding of the behavioural aspects in horizontal purchasing collaboration in developing countries (Uganda).
At the emergence stage of a collaborative initiative, we found out that emphasis should be put on developing a practice of togetherness through aligning values and converging to a similar inter-organisational philosophy. At the operation stage, the key tasks should aim at creating a high degree of positive feelings towards each other. Donors are most needed in the emergence stage, because they provide resources and want to be sure of the method that will be used to utilise them.

From the study, in addition to understanding what is happening with respect to behavioural aspects in horizontal purchasing collaboration in developing countries, we have added new insights in this area. From the study, the reader can appreciate why and how the behavioural aspects influence horizontal purchasing collaboration. The study has an important message it portrays; that in developing countries, horizontal purchasing collaboration should be targeted more at sharing the burden of individual procurement benefits whereas in developed countries, the focus is more on additional benefits. The study has opened points of departure, for future research in horizontal purchasing collaboration in developing countries. Since we have provided an empirically checked guidance on how to improve behavioural factors, we hope to provide an empirical basis for practical interventions to issues that have hindered the well functioning of horizontal purchasing collaboration in developing countries.

References

Afifi, A., Elashoff, R., 1966. Missing observations in multivariate statistics I: review of the literature. Journal of the American Statistical Association, 61, 595-604.

Agar, M. 1991. The right brain strikes back. In Using Computers in Qualitative Research, Newbury Park: Sage Publications, 181-194.

Ahire, S.L., Oôshaughnessy, K.C., 1997. The role of top management commitment in quality management: an empirical analysis of the auto parts industry. International Journal of Quality Science, 3(1), 5-37.

Allen, N.J., Meyer, J.P., 1990. The measurement and antecedents of affective, continuance and normative commitment to the organisation. Journal of Occupational Psychology, 63(1), 1-18.

Allen, N.J. Meyer, J.P., 1996. Affective, continuance and normative commitment to the organisation. An examination of construct validity. Journal of Vocational Behaviour, 49, 252-276.

Amaratunga, D., Baldry, D., 2001. Case study methodology as a means of theory building: performance measurement in facilities management organisations. Work Study, 50(3), 95-105.

Amit, R., Schoemaker, P.J., 1993. Strategic assets and organisational rent. Strategic Management Journal, 14, 33-46.

Andaleeb, S.S., 1996. An experimental investigation of satisfaction and commitment in marketing channels: The role of trust and dependence. Journal of Retailing, 72(1), 77-93.

Anderson, E.W., Fornell, C., Lehmann, D.R. 1984. Customer satisfaction, market share, and profitability. Journal of Marketing, 58, 53-66.

Anderson, J.C., Narus, J.A., 1990. A model of distributor firm and manufacturer firm working partnerships. Journal of Marketing, *54* 42-58.

Anderson, E., Weitz, B., 1992. The use of pledges to build and sustain commitment in distribution channels. Journal of Marketing Research, 29, 18-34.

Andriessen, D., 2004. Reconciling the rigor-relevance dilemma in intellectual capital research. The Learning Organisation: An International Journal, 11(4/5), 393-401.

Andriessen, D., 2005. On the metaphorical nature of intellectual capital: A textual analysis, paper presented at the 4th Critical Management Society conference, 4-6 July 2005, Cambridge, UK.

Anheier, H.K., Kendall, J., 2000. Trust and voluntary organisations. Three theoretical approaches. Civil Society Working Paper, 5.

Arndt, J., 1985. On making marketing science more scientific: the role of observations, paradigms, metaphors and puzzle solving. Journal of Marketing, 49 11-23.

Arnold, U., 1996b. Cooperative purchasing as a challenge from business-to-business marketing: Results from an action research project. EMAC conference proceedings, Budapest (Hungary), 1367-1384.

Arnold, U., 1997. Purchasing consortia as a strategic weapon for highly decentralized multidivisional companies. Proceedings 6th IPSERA Conference, University of Naples Federico II, T3/7-1-T3/7-12

Atkinson, S., Butcher, D. (2003). Trust in managerial relationships. Journal of Managerial Psychology, 18(4), 282-304.

Aycan, Z., 2002. Leadership and teamwork in developing countries: challenges and opportunities. Online Readings in Psychology and Culture, 15(80.

Aylesworth, M., (2003), Purchasing Consortia in the Public Sector, models and Methods for Success. Paper presented at ISM conference, May 2003, Nashville, USA.

Babbar, S., Addae, H., Gosen, J., Prasad, S., 2008. Organisational factors affecting supply chains in developing countries. International Journal of Commerce and Management, 18(3), 234-251.

Bagchi, P.K., Ha, B.C., Skjoett-Larsen, T., Soerensen, L.B., 2005. Supply chain integration: a European survey. The International Journal of Logistics Management, 16(2), 275-294.

Bakker, E., Walker, H., 2008. Collaborative procurement in local government. Centre for Research in Strategic Purchasing and Supply.

Bakker, E., Walker, H., Harland, C., Warrington, J., 2006b. The effect of collaborative purchasing structures on managing cooperation. IPSERA conference proceedings, San Diego (United States).

Bakker, E., Walker, H., Schotanus, F., Harland, C., 2008. Choosing an organisational form: the case of collaborative procurement initiatives. International Journal of Procurement Management, 1(3).

Ball, D., Pye, J., 2000. Library purchasing consortia: The UK periodicals supply market. Learned Publishing, 13(1), 25-35.

Barley, S. R., Freeman, J., Hybels, R.C. (1992). Strategic alliances in commercial biotechnology. In Nohria, N., Eccles, R.G. (Eds.). Networks and Organisations. Harvard Business School Press, Cambridge, MA, pp.311-47.

Barney, J.B., (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99-120.

Batonda, G., Perry, C., 2003. Approaches to relationship development processes in inter-firm networks. European Journal of Marketing, 37(10).

Beamish, P.W., (1987). Joint ventures in LDCs: partner selection and performance. Management International Review, 27(1), 23-37.

Berg, P.O., 1989. Postmodern management? From facts to fiction in theory and practice. Scandinavian Journal of Management, 5(3), 201-17.

Berkowitz, E.N., 1996. Essentials of Health Care Marketing. Aspen Publisher, Inc. Gaithersburg, MD.

Berkun, S., 2005. The Art of Project Management. OôReilly Media, Sebastopol, C.A.

Beverland, M., Bretherton, P., 2001. The uncertain search for opportunities: determinants of strategic alliances. Qualitative Market Research: An International Journal, 4(2), 88-99.

Bignoux, S., (2006). Short-term strategic alliances: a social exchange perspective. Management Decisions, 44(5), 615-27.

Boddy, D., Macbeth, D., Wagner, B., 2000. Implementing cooperative strategy: a model from the private sector. In Faulkner, D.O., de Rond, M. (Eds.). Cooperative Strategy: Economic, Business and Organisational Issues, Oxford University Press, New York, NY, 195.

Bohm, D., Factor, D., Garrett, P., 1991. Dialogue ï a proposal. URL: http://muc.de.

Bontis, N., 2002. Managing organisational knowledge by diagnosing intellectual capital: framing and advancing the state of the field. In Bontis, N. (Eds.). World Congress on Intellectual Capital Readings, Butterworth-Heinemann, Boston, MA, 621-42.

Bowersox, D.J., 1990. The strategic benefits of logistics alliances. Harvard Business Review, 86, 36-45.

Braendshoi, H., 2001. Stakeholder analysis: interfacing with project owners in joint ventures. PME-Report, BI, Norwegian School of Management, Oslo, 1-40.
Brennan, R. and Turnbull, P.W., 1999. Adaptive behaviour in buyer-supplier relationships. Industrial Marketing Management, 28(5), September, 481-495.
Brown, T.A., 2008. Confirmatory factor analysis for applied research. The American Statistician, 62.
Brown, J.R., Lusch, R.F., Nicholson, C.Y., 1995. Power and relationship commitment: their impact on marketing channel member performance. Journal of Retailing, 71(4), 363-92.
Brown, S.P., Peterson, R.A., 1993. Antecedents and consequences of salesperson job satisfaction: meta analysis and assessment of casual effects. Journal of Marketing Research, 30, 63-77.
Browning, L.D., Beyer, J.M., Shelter, J.C., 1995. Building cooperation in a competitive industry: SEMATECH and the semiconductor industry. Academy of Management Journal, 38(1), 113-151.
Buchanan, L., 1992. Vertical trade relationships: the role of dependence and symmetry in attaining organisational goals. Journal of Marketing Research, 29(1), 65-75.
Burell, G., Morgan, G., 1979. Sociological Paradigms and Organisational Analyses, London, Heineman.
Burt, R.S., 1982. Towards a Structural Theory of Action: Network Models of Social Structure, Perceptions, and Action, Academic Press, New York, NY, . **...**
Butler, J.K., 1991. Toward understanding and measuring dimensions of trust: evolution of a dimensions of trust inventory. Journal of Management, 17(3), 643-63.
Butler, J.K., Cantrell, R.S., 1984. A behavioural decision theory approach to modelling. Academy of Management Journal, 48(50), 874-888.
Cai, S., Yang, Z., Hu, Z., 2010. The effects of volume consolidation on buyer-supplier relationships: A study of Chinese firms. Journal of Purchasing and Supply Management, 16, 152-162.
Callahan, T.J., 2000. Comparisons of the competitive position of Canadian, Mexican, and US suppliers. Journal of Supply Chain Management, 36(4), 43-54.
Carlzon, J., 1987. Moments of Truth. Ballinger, New York, NY.
Carr, A.S., Kaynak, H., Hartley, J.L., Ross, A., 2008. Supplier dependence: impact on supplierôs participation and performance. International Journal of Operations & Production Management, 28(9), 899-916.
Carter, P.L., Carter, J.R., Monczka, R.M., Slaight, T.H., Swan, A.J., 2000. The future of purchasing and supply: a ten-year forecast. The Journal of Supply Chain Management 36 (24), 14.
Castells, M., 1996. The Rise of the Network Society, Blackwell, Oxford.
Chan, B., Feldman, R., Manning, W.G., 1999. The effects of group size and group economic factors on collaboration: a study of the financial performance of rural hospitals consortia. Hospital Behaviour and Performance, 34(1), 9-31.
Childers, T.L., Ruekert, R.W., 1982. The meaning and determinants of cooperation within an organisational marketing network. In Bush, R.F., Hunt, S.D. (Eds.). Marketing Theory: Philosophy of Science Perspectives, American Marketing Association, Chicago, 116-119.
Chiles, T.H., McMackin, J.F., 1996. Integrating variable risk preferences, trust and transaction cost economics. The Academy of Management Review, 12(3), 534-545.

Chisholm, R.F., 1998. Developing Network Organisations, Addison-Wesley, Reading, MA, .
Choppin, J., 1994. Total quality service. Managing Service Quality, 4(3), 49-52.
Christopher, M., Juttner, U., 2000. Developing strategic partnerships in the supply chain: a practioner perspective. European Journal of Purchasing & Supply Management, 6, 117-127.
Churchill, G.A., Jr., Peter, J.P., 1984. Research design effects on the reliability of rating scales: a meta analysis. Journal of Marketing Research.
CIPS Uganda., 2008. The Chartered Institute of Purchasing and Supply. Uganda Chapter.
Cleverly, W.G., Nutt, P.C., 1984. The effectiveness of group purchasing organisations. Health Sciences Research, 19(1), 65-82.
Cohen, J., 1992. A power primer. Psychological Bulletin, 112(1), 155-159.
Collins, R.S., Cordon, C., 1997. Survey methodology issues in manufacturing strategy and practice research. International Journal of Operations and Production Management, 17(7), 697-706.
Comptroller-General, 1980. Hospitals in the Same Area Often Pay Widely Different Prices for Comparable Supply Items, General Accounting Office, Washington DC.
Comstock, D., Fox, S., 1995. Computer conferencing in a learning community: opportunities and obstacles.
Cook, J., Wall, T., 1980. New work attitude measures of trust, organisational commitment and personal need non-fulfilment. Journal of Occupational Psychology, 53, 39-52.
Conner, K.R., 1991. A historical comparison of resource based view and five schools of thought within industrial organisational economics: do we have a new theory of the firm? Journal of Management, 17(1), 121-154.
Cook, K.S., Emerson, R.M., 1978. Power, equity and commitment in exchange networks. American Sociological Review, 43, 712-39.
Coombs, C.H., 1950. Psychological scaling without a unit of measurement. Psychological Review, 57, 145-158.
Cortina, J.M., 1993. What is coefficient alpha? An examination of theory and applications. Journal of Applied Psychology, 78(1), 98-104.
Cowles, D.L., Kiecker, P., Little, M.W., 2002. Using key informants as a foundation for e-retailing theory development. Journal of Business Research, 58(8), 629-636.
Cravens, D., Cravens, K., Piercy, N., 2000. Assessing the performance of strategic alliances: matching metrics to strategies. European Management Journal, 18, 529-41
Creswell, J.W., 1994. Research Design: Qualitative and Quantitative Approaches, Sage, London, .
Cronbach, L.J., 1951. Coefficient alpha and the internal structure of tests. Psychometrica, 16, 297-334.
Cronbach, L.J., 1970. Essentials of Psychological Testing. New York: Harper and Row.
Cruijssen, F., 2006. Horizontal cooperation in transport and logistics. Ph.D. dissertation, Tilburg (the Netherlands): Tilburg University.
Cruijssen, F., Cools, M., Dullaert, W., 2007. Horizontal cooperation in logistics: opportunism and impediments. Transportation Research, 129-142.

Cullen, J.B., Johnson, J.L., Sakano, T., 2000. Success through commitment and trust: the soft side of strategic alliance management. Journal of World Business, 35(3), 223-240.
Cusumano, M.A., 1991. Japanôs Software Factories: A Challenge to US Management, Oxford University Press, New York, NY.
Czinkoa, M.R., Tesar, G., 2008. Export Policy. A Global Assessment, Praeger, New York
DôAunno, T.A., Zuckerman, H.S., 1987. A Life-Cycle Model of Organisational Federations: The Case of Hospitals. Academy of Management Review, 12(3), 534-545.
Das, T.K., Kumar, R., 2007. Learning dynamics in the alliance development process. Management Decision, 45(4), 684-707.
Das, T.K., Teng, B., 1996. Risk types and interfirm alliance structures. Journal of Management Studies, 33(6), 827-843.
Das, T.K., Teng, B., 2000. Instabilities of strategic alliances: An internal tensions perspective. Organisation Science, 11, 77-101.
Das, T.K., Teng, B.S., 2001a. A risk perception model of alliance structuring. Journal of International Management, 7, 1-29.
Das, T.K., Teng, B.S., 2001b. Trust, control, and risk in strategic alliances: An integrated framework. Organisation Studies, 22 (2), 251-283.
Das, T.K., Teng, B.S., 2002. Alliance constellations: A social exchange perspective. The Academy of Management Review, 27(3), 445-456.
Decoene, V., Bruggeman, W., 2006. Strategic alignment and middle level managersô motivation in a balanced scorecard setting. International Journal of Operations and Production Management, 26 (3), 429-449.
Den Hertog, J.F. & Van der Sluijs, E., 1995. Onderzoek in organisations: Een methodologische reisgids. Assen: Van Gorcum. (Research in organisations: A methodological travel guide).
Denzin, N.K., 1970. The Research Act: A Theoretical Introduction to Sociological Methods, Aldine Publishing Company, Chicago, IL.
Dierickx, T.I., Cool, K., 1989. Asset stock accumulation and sustainability of competitive advantage. Management Science, 35(12), 1504-1511.
DiMaggio, P.J., Powell, W.W., 1983. The Iron Cage revisited: Institutional Isomorphism and Collective Rationality in Organisational Fields. American Sociological Review 48, 147-160.
Dion, P., Banting, P., Picard, S., Blenkhorn, D., 1992. JIT implementation: a growth opportunity for purchasing. International Journal of Purchasing and Materials Management, 28(4), 33.
Doney, P.M., Cannon, J.P., 1997. An examination of the nature of trust in buyer-seller relationships. Journal of Marketing, 61(4), 35-51.
Doucette, W.R., 1997. Influences on member commitment to group purchasing organisations. Journal of Business Research, 40(3), 183-189.
Doukidis, G.I., 2008. Supply Chain Management: An International Journal, 12(3).
Doz, Y.L., 1996. The evolution of cooperation in strategic alliances: initial conditions and learning processes. Strategic Management Journal, Special Issue, 17, 55-83.
Draft, R., 1983. Organisation Theory and Design, West Publishing, New York, NY, Ebers, M., 1997. Explaining inter-organisational network formation. In Ebers, M. (Eds.). The Formation of Inter-Organisational Networks, Oxford University Press, Oxford,

Durbin, J., Watson, G.S., 1951. Testing for serial correlation in least squares regression, II. Biometrika, 30, 159-178.
Dwyer, F.R., LaGace, R.R., 1986. On the nature and role of buyer-seller trust. AMA Summer Educators Conference Proceedings.
Dwyer, F.R., Schurr, P.H., Oh, S., 1987. Developing buyer-seller relationships. Journal of Marketing, 51 (2), 11-27.
Dyer, J.H., 2000. Collaborative advantage, winning through extended enterprise supplier networks. New York: Oxford University Press.
Easterby-Smith, M., 1991. Management Research: An Introduction. Sage Publications, London.
Easterby-Smith, M., Thorpe, R., Lowe, A., 1992. Management Research: An Introduction. London: Sage.
Easterby-Smith, M., Thorpe, R., Lowe, A., 2002. Management Research: An Introduction, 2nd Edition, London, Sage.
Easton, G., Zolkiewski, J., Bettany, S., 2002. An exploratory taxonomic study of IMP group conference papers. Proceedings of the 18th Annual IMP Conference, Dijon, France, September.
Ebers, M., Jarrillo, C., 1997. The construction, forms, and consequences of industry networks. International Studies of Management and Organisation, 27, 3-22.
Eßig, M., 2000. Purchasing consortia as symbiotic relationships. European Journal of Purchasing and Supply Management, 6 (1), 13-22.
Edroma, E.B., 2005. Sector Wide Approach in Justice, Law and Order: The Uganda Experience. ALRAESA Annual Conference proceedings, Entebbe Uganda.
Ehin, C., 2000. Unleashing Intellectual Capital. Butterworth-Heinermann, Boston, MA.
Eisenhardt, K., Schoonhoven, C., 1996. Resource-based view of strategic alliance formation: strategic and social effects in entrepreneurial firms. Organisation Science, 7, 136-52.
Eisenhardt, K.M., 1989. Building theories from case study research. Academy of Management Review, 14(4).
Eliashberg, J., Michie, D.A., 1984. Multiple business goals sets as determinants of marketing channel conflict: An empirical study. Journal of Marketing Research, 21, 75-88.
Elloy, D.F., 2008. The relationship between self leadership behaviour and organisational variables in a self managed work learning environment. Management Research News, 31(11), 801-810.
Ellram, L.M., 1991. A managerial guideline for the development and implementation of purchasing partnerships. International Journal of Purchasing and Materials Management, 27(1), 56-74.
Emberson, C., Storey, J., 2006. Buyer-supplier collaborative relationships: Beyond the normative accounts. Journal of Purchasing & Supply Management, 12, 236-245.
Emerson, R.M., 1962. Power-dependence relations. American Sociological Review, 27(1), 31-41.
Emiliani, M.L., 1998. Lean behaviours. Management Decision, 36(9), 615-31
Enarkrire, T.R., Onyenania, O.G., 2007. Factors affecting the development of information infrastructure in Africa. Library High Tech News, 2, 15-20.
Enthoven, A.C., 1994. On the ideal market structure for third-party purchasing of health care. Social Science and Medicine, 39 (10), 1413-1424.

Essig, M., 1999b. Cooperative sourcing as a new strategic supply concept: theoretical framework and empirical findings. Proceedings 8th International IPSERA Conference, Dublin/Belfast, 245-256.
Essig, M., 2000. Purchasing Consortia as symbiotic relationships: developing the concept of ñconsortium sourcingò. European Journal of Purchasing and Supply Management, 6, 13-22.
Essig, M., Arnold, U., 2001. Electronic procurement in supply chain management: an information economics-based analysis of electronic markets. The Journal of Supply Chain Management 37 (4), 43ï 49
Etgar, M., 1979. Sources and types of intrachannel conflict. Journal of Retailing, 55(1), 61-78.
Ezeoha, A.E., 2005. Regulating internet banking in Nigeria: Problems and challenges. Journal of Internet Banking and Commerce, 10(3).
Feisel, E., Hartmann, E., Giunipero, L., Schober, H., 2009. Examining the effectiveness of purchasing trainings ï implications for the purchasing professionals. Annual Review Psychology, 399-441.
Field, A., 2005. Discovering Statistics Using SPSS. 2nd Ed. Sage Publications.
Fine, C.H., Whitney, D.E., 1996. Is the make-buy decision process a core competence?, MIT Center for Technology, Policy, and Industrial Development, Cambridge, MA, Working Paper, 3875-3896, .
Fink, A., 1995b. How to Ask Survey Questions. Thousand Oaks. Calf: Sage.
Fontenot, R.J., Wilson, E.J., 1997. Relational exchange: a review of selected models for a prediction matrix of relationship activities. Journal of Business Research, 39 (3) 5-12.
Frazier, G.L., 1983. International exchange behaviour in marketing channels: a broadened perspective, Journal of Marketing, Vol. 47 pp.68-78.
Freeman, R.E., 1984. *Strategic Management: A Stakeholder Approach*, Pitman, Boston, MA.
Fryxell, G.E., Dooley, R.S., Vryza, M., 2002. After the ink dries: the interaction of trust and control in U.S.-based international joint ventures. Journal of Management Studies, 36(6), 865-86.
Fu, J-R., Farn, C-K., Chao, W-P., 2006. Acceptance of electronic tax filing: a study of taxpayer intentions. Information & Management, 43(1), 109-26.
Fukuyama, F., 1995. Trust: The Social Virtues and the Creation of Prosperity, The Free Press, New York, NY.
Gadde, L.E., Hakansson, H., 2001. Supply Network Studies. Wiley, Chichester.
Galaskiewicz, J., 1985. Interorganisational relations. Annual Review of Sociology, 11, 281-304.
Gambetta, D., 1988. Mafia: the price of distrust. In Gambetta, D. (Eds.). Trust: Making and Breaking Cooperative Relations, Basil Blackwell, Oxford, 158-75.
Ganesan, S., 1994. Determinants of long-term orientation in buyer-seller relationships. Journal of Marketing, 58(2), 1-19.
Gefen, D., 2000. E-Commerce: The Role of Familiarity and Trust. The International Journal of Management Science, 286, 725-737
Gemunden, H.-G., 1997. The development of IMP ï an analysis of the conference proceedings 1984-96. In Gemünden, H.G., Ritter, T., Walter, A. (Eds.). Relationships and Networks in International Markets, Elsevier, Oxford, 3-12.
Geringer, M., Herbert, L., 1991. Measuring performance in international joint ventures. Journal of international Business Studies, 22(2), 249-263.

Ghingold, M., Johnson, B., 1998. Technical knowledge as value added in business markets: Implications for procurement and marketing. Industrial Marketing Management, 26(3), 271-280.
Gibbs, A., 1997. Focus groups. Social Research Update. Department of Sociology, University of Survey.
Gill, J., Johnson, P., 1991. Research Methods for Managers. Paul Chapman Publishing Ltd, London.
Gilliland, D.I., Bello, D.C., 2002. Two sides to attitudinal commitment: the effect of calculative and loyalty commitment on enforcement mechanisms in distribution channels. Journal of the Academy of Marketing Science, 30(1), 24-43.
Glasser, B., 1967. The Discovery of Grounded Theory: Strategies for Qualitative Research. Aldine Publishing Co. Chicage, IL.
Glatthorn, A.A., Joyner, R.L., 2005. Writing the winning thesis or dissertation: A step-by-step guide. Thousand Oaks (CA): Sage Publications.
Goetz, J., LeCompte, M., 1984. Ethnography and Qualitative Design in Educational Research. New York: Academic Press.
Government of Uganda., 1995. Justice Report, Ministry of Justice and Constitutional Affairs. The Government of the Republic of Uganda, 1995.
Government of Uganda., 2000. National Housing and Population Census Report. Ministry of Finance Planning and Economic Development. The Government of the Republic of Uganda, 2000.
Government of Uganda., 2002. Public Service Ethics. Uganda Management Institute and the United Nations Department of Economic and Social Affairs. The Government of the Republic of Uganda.
Government of Uganda., 2004. Public Accounts Committee Report, Ministry of Finance Planning and Economic Development. The Government of the Republic of Uganda, 2004.
Government of Uganda., 2005. Justice Report, Ministry of Justice and Constitutional Affairs. The Government of the Republic of Uganda, 2005.
Government of Uganda., 2006. Auditor Generalôs Report. Office of the Auditor General, The Government of the Republic of Uganda, 2006.
Government of Uganda., 2006. Court Records, Ministry of Justice and Constitutional Affairs. The Government of the Republic of Uganda, 2006.
Government of Uganda., 2006. Energy Report, Ministry of Energy and Natural Resources. The Government of the Republic of Uganda, 2006.
Government of Uganda., 2006. Justice Law and Order Sector Report. Ministry of Justice and Constitutional Affairs. The Government of the Republic of Uganda, 2006.
Government of Uganda., 2006. Labour Report. Ministry of Public Service. The Government of the Republic of Uganda, 2006
Government of Uganda., 2006. National Budget Speech. Ministry of Finance Planning and Economic Development. The Government of the Republic of Uganda, 2006.
Government of Uganda., 2006. Police Report. Ministry of Internal Affairs. The Government of the Republic of Uganda, 2006.
Government of Uganda., 2006. Trade Report, Ministry of Trade, Tourism and Industry. The Government of the Republic of Uganda, 2006.
Government of Uganda., 2007. Auditor Generalôs Report. Office of the Auditor General, The Government of the Republic of Uganda, 2007.

Government of Uganda., 2007. Justice Law and Order Sector Report. Ministry of Justice and Constitutional Affairs. The Government of the Republic of Uganda, 2007.
Government of Uganda., 2007. Procuring and Disposing Entities Report, Ministry of Finance Planning and Economic Development. The Government of the Republic of Uganda, 2007.
Government of Uganda., 2008. Approved Estimates of Revenue and Expenditure, Ministry of Finance Planning and Economic Development. The Government of the Republic of Uganda, 2008.
Graen, G., Scandura, T., 1987. Toward a psychology of dyadic organizing. In Cummmings, L., Staw, B. (Eds.). Research in Organisational Behaviour, JAI Press.
Grandori, A., 1997. An organisational assessment of interfirm coordination modes. Organisation Studies, 18, 897-927.
Grandori, A., Soda, G., 1995. Inter-firm networks: antecedents, mechanisms and forms. Organisation Studies, 16, 183-216.
Granot, D., Socic, G., 2005. Formation of alliances in internet-based supply exchanges. Management Science, 51(1), 92-105.
Granovetter, M.S., 1973. The strength of weak ties. American Journal of Sociology, 78(6), 1360-1380.
Grant, R.M., 1991. The resource-based theory of competitive advantage: Implications for strategy formulation. California Management Review, 33, 114-135.
Green, S.G., Lissitz, R.W., Mulaik, S.A., 1977. Limitations of coefficient alpha as an index of test dimensionality. Educational and Psychological Measurement, 37, 827-838.
Greenbank, P., 2003. Collaboration in assessment process: an Initial evaluation of collaboration on an undergraduate business and management course. Teaching and Learning, 8(3), 317-331.
Grönroos, C., 1994. From marketing mix to relationship marketing: towards a paradigm shift in marketing. Asia-Austrailia Marketing Journal, 2(1).
Grover, V., Malhotra, M.K., 2003. Transaction cost framework in operations and supply chain management research: theory and measurement. Journal of Operations Management, 21(4), 457-473.
Gulbrandsen, B., Sandvik, K., Haugland, S.A., 2008. Antecedents of vertical integration: Transaction cost economics and resource-based explanations. Journal of Purchasing and Supply Management, 15, 89-102.
Gundlach, G.T., Achrol, R.S., Mentzer, J.T., 1995. The structure of commitment in exchange, Journal of Marketing, 59, 78-92.
Hadjikhan, A., Thilenius, P., 2005. The impact of horizontal and vertical connections on relationships, commitment and trust. Journal of Business and Industrial Marketing, 20(3), 136-47.
Hailen, L., Johanson, J., Seyed-Mohamed, N., 1991. Interfirm adaptation in business relationships. Journal of Marketing, 55(2), 29-38.
Hair, J.F., Anderson, R.E., Tatham, R.L., Black, W.C., 2002. Multivariate Analysis with Readings, Prentice-Hall, Englewood Cliffs, NJ
Hakansson, H., Snehota, I., 1989. No business is an island. Scandinavian Journal of Management, 5 (3), 187-200.
Hakansson, H., Snehota, I., 1995. Developing Relationships in Business Networks, International Thomson Business Press, London,

Hallen, L., Sandstrom, M., 1991. Relationship atmosphere in international business. In Paliwoda, S.J. (Eds.). New Perspectives on International Marketing, Routledge, London, 108-125.
Hallen, L., Wiedersheim-Paul, F., 1979. Psychic distance and supplier-customer interaction. Organisational Marketing Journal, 16, 308-325.
Hamel, G., 1991. Competition for competence and interpartner learning within interorganisational strategic alliances. Strategic Management Journal, 83-103.
Hammarkvist, K.O., Håkansson, H., Mattsson, L-G., 1982. Marknadsföring för Konkurrenskraft, IVA, MTC och Liber Förlag, Stockholm.
Hammersley, M, Atkinson, P., 1983. Ethnography ï Principles and Practice, Routledge, University Press, Cambridge.
Han, J.K., Kim, N., Srivastava, R., 1998. Market orientation and organisational performance: Is innovation a missing link? Journal of Marketing, 62, 30-45.
Handy, C. 1995. Trust and the virtual organisation. Harvard Business Review, May/June, 40-50.
Hansen, M.T., 1999. The search-transfer problem: the role of weak ties in sharing knowledge across organisation subunits. Administrative Science Quarterly, 44(1), 82-111.
Harrison, D., 2005. IMP as Fashion: Past, Present and Future. IMP Group. http://impgroup.org/papers.php
Hay, C., 1998. The tangled webs we weave: the discourse, strategy and practice of net working, in Marsh, D., (Ed.) Comparing Policy Networks, Open University Press, Buckingham.
Heide, J.B., John, G., 1988. The role of dependence balancing in safeguarding transaction-specific assets in conventional channels. Journal of Marketing, 52 (1), 20-35.
Heijboer, G., 2003. Mathematical and statistical analysis of initial purchasing decisions. Ph.D. dissertation, Enschede (the Netherlands): University of Twente.
Henderson, J.A., 1988. Who will survive? Health Industry Today, 51(4), 21-25.
Hendrick, T.E., 1997. Purchasing consortiums: Horizontal alliances among firms buying common goods and services: What? Who? Why? How? Tempe: Centre for Advanced Purchasing Studies.
Hindess, B., 1988. Choice, Rationality and Social Theory.
Hoegl, M., Wagner, S.M., 2005. Buyer-supplier collaboration in product development projects. Journal of Management, 31(4), 530-548.
Hoffmann, W., Schlosser, R., 2001. Success factors of strategic alliances in small and medium-sized enterprises, an empirical study. Long Range Planning, 34(3), 357-381.
Hofstede, G., Bond, M.H., 1988. The Confucius connection: From cultural roots to economic growth. Organisational Dynamism, 16, 4-21.
Holton, J.A., 2001. Building trust and collaboration in a virtual team. Team Performance Management: An International Journal, 7(3), 36-47.
Holweg, M., Disney, S., Holmstrom, J., 2005. Supply chain collaboration: making sense of the strategy continuum. European Management Journal, 23(2), 170-181.
Huber, G., 1991. Organisational learning: the contributing processes and the literature. Organisation Science, 2, 88-115.
Huber, B., Sweeney, E., Smyth, A., 2004. Purchasing consortia and electronic markets: A procurement direction in integrated supply chain management. Electronic Markets, 14(4), 284-294.

Hunt, S.D., 1991. Modern Marketing Theory: Critical Issues in the Philosophy of Marketing Science. South-Western Publishing Co., Cincinnati, OH.
Hutcheson, G., Sofroniou, N., 1999. The Multivariate Social Scientist. London: Sage.
Hutt, M.D., Stafford, E.R., Walker, B.A., Reingen, P.H., 2000. Defining the Social Network of a Strategic Alliance. Sloan Management Review, 41(2), 51-62.
Huxham, C, and Vangen, S., 2000. Ambiguity, complexity and dynamics in the membership of collaboration. Human Relations, 53(6), 771-806
Huxham, C, and Vangen, S., 2004. Doing things collaboratively: Realising the advantages or succumbing to inertia? Organisational Dynamics, 33.
Ingram, P., Roberts, P.W., 2000. Friendships among Competitors in the Sydney Hotel Industry. American Journal of Sociology, 106, 387-423.
Ireland, R.D., Hitt, M.A., Vaidyanath, D., 2002. Alliance management as a source of competitive advantage. Journal of Management, 28(3), 413-446.
Jagdev, H.S., Thoben, K.D., 2001. Anatomy of enterprise collaboration. Production Planning and Control, 12(5), 437-51.
Janes, J., 2001. Survey research design. Library Hi Tech, 19 (4).
Jap, S.D., 2001. Perspective on joint competitive advantages in buyer-supplier relationship. International Journal of Research in Marketing, 18(1-2), 19-35.
Jick, T., 1979. Mixing qualitative and quantitative research methods: triangulation in action. Administrative Science Quarterly, December 24(4), 602-611.
Johnson, D.A., Kristal, M.M., 2008. The climate for cooperation: buyer-supplier beliefs and behaviour. International Journal of Operations and Production Management, 28(9), 875-898.
Johnson, F.F., 1999. The pattern of evolution in public sector purchasing consortia. International Journal of Logistics: Research and Applications, 2(1), 57-73.
Johnson, J.C., 1990. Selecting Ethnographic Informants. Newburry Park, CA: SAGE Publications.
Johnston, W.J., Lewin, 1996. Organisational buying behaviour: towards an integrative framework. Journal of Business Research, 1, 1-15.
Jolliffe, I.T., 1972. Discarding variables in a principal component analysis, I: artificial data. Applied Statistics, 21, 160-173.
Jolliffe, I.T., 1986. Principal Component Analysis. New York: Springer-Verlag.
Jones, G.R., Hill, C.W.L., 1988. Transaction cost analysis of strategy-structure choice. Strategic Management Journal, 19(2) 159-72.
Kaiser, H.F., 1960. The application of electronic computers to factor analysis. Educational and Psychological Measurement, 20, 141-151.
Kaiser, H.F., 1970. A second-generation little jiffy. Psychometrika, 35, 401-415.
Kale, S.H., 1986. Manufacturersô power and influence strategies within distribution channels in a developing country. Journal of Marketing Research, 23(4), 387-393.
Kalinzi, C., 2005. How group sourcing benefits small organisations in Uganda: The case of private wholesale and retail pharmacies in Kampala district. MBA dissertation, Maastricht School of Management, University of Twente.
Kamann, D. J., Vaart, T., Van der Vries, J. de., 2004. Joint purchasing: Theory and practice. IPSERA conference proceedings, Catania (Italy), 511-520.
Kanter, R.M., 1994. Collaborative Advantage. The Art of Alliances. Harvard Business Review, 72, July-August, 96-108.
Kanungo, R.N., Jaeger, A.M., 1990. Management in Developing Countries, London: Routledge.

Karjalainen, P.T., 2008. Inter-Organisational Relationships: The Evolution of Partnership in Sales and Marketing Cooperation ï a Case Study. Ph.D. dissertation, Helsinki (Finland): University of Technology (Espoo, Finland).
Karlsen, J.T., Anderson, J., Birkley, L.S., Odegard, E., 2006. An empirical study of critical success factors in IT projects. International Journal of Management and Enterprise Development, 3 (4), 297-311.
Kauffman, S.A., 1993. The Origins of Order: Self-Organisation and Selection in Evolution, Oxford University Press, New York, NY, .
Kelly, S.J., 2004. Measuring attitudinal commitment in business to business channels. Marketing Intelligence and Planning Journal, 22(6), 636-651.
Khalfan, M.M., McDermott, P., Swan, W., 2007. Building trust in construction projects. Supply Chain Management: An International Journal, 12(6), 385-391.
Kim, K., Frazier, G.L., 1997. Measurement of distributor commitment in industrial channels of distribution. Journal of Business Research, 40, 139-54.
Kim, S.K., 2007. Relational behaviours in marketing channel relationships: transaction cost implications. Journal of Business Research, 60, 1125-1134.
Kinengyere, A.A., 2007. The effect of information literacy on the utilisation of electronic information resources in selected academic and research institutions in Uganda. The Electronic Library, 25(3), 328-341.
Klein Woolthuis, R., 1999. Sleeping with enemy: trust, dependence and contract in interorganisational relationships. Ph.D. dissertation, Enschede (the Netherlands): University of Twente.
Knippen, J.T., Green, T.B., 1999. Handling conflicts. Journal of Workplace Learning, 11 (1), 27-32.
Kogut, B., 1998. Joint ventures: theoretical and empirical perspectives. Strategic Management Journal, 9, 319-332.
Kogut, B., Zander, U., 1993. Knowledge of the firm and the evolutionary theory of the multinational corporation. Journal of International Business Studies, 24(4), 625-645.
Korsgaard, M.A., Schweiger, D.M., Sapienza, H.J., 1995. Building commitment, attachment and trust in strategic decision making teams: the role of procedural justice. Academy of Management Journal, 38(1), 60-85.
Koutsikouri, D., Austin, S., Dainty, A., 2008. Critical success factors in collaborative multi disciplinary design projects, 6 (3), 198-226.
Koza, M., Lewin, A., 2000. Managing partnerships and strategic alliances: raising the odds of success. European Management Journal, 18, 146-51.
Kraljic, P., 1983. Purchasing must become supply management. Harvard Business Review, 61 (5), 109-117.
Kruckeberg, D., Vujnovic, M., 2005. Public relations, not propaganda, for US public diplomacy in a post-9/11 world: Challenges and opportunities. Journal of Communication management, 9 (4), 296-304
Kuada, J., 2002. Collaboration between developed and developing country-based firms: Danish-Ghanian experience. Journal of Business and Industrial Marketing, 17(6).
Kumar, N., Stern, L.W., Anderson, J.C., 1993. Conducting interorganisational research using key informants. The Academy of Management Journal, 36(6), 1633-1651.
Laing, A., Cotton, S., 1997. Patterns of inter-organisational purchasing: evolution of consortia based purchasing amongst GP fund holders. European Journal of Purchasing and Supply Management, 3(2), 83-91.

Lambert, D., Cooper, M., 2000. Issues in supply chain management. Industrial Marketing Management, 29(1), 65-83.
Lambert, D.M., Cooper, M.C., Pagh, J.D., 1998. Supply chain management: Implementation issues and research opportunities. International Journal of Logistics Management, 9(2), 1-19.
Lander, M.C., Purvis, R.L., McCray, G.E., Leigh, W., 2004. Trust-building mechanisms utilised in outsourced IS development projects: a case study. Information and Management, 41, 509-528.
Lawler, E.J., 2001. An affect theory of social exchange. American Journal of Sociology, 107 (2), 321-352.
Lazonick, w., 1990. Competitive Advantage on the Shop Floor, Harvard University Press, Cambridge, MA.
Lee, H.L., Billington, C., 1992. Supply chain management: pitfalls and opportunities. Sloan Management Review, 33, 65-73.
Lee, H.L., Whang, S., 2001. E-business and Supply Chain Integration, White Paper, SGSCMF-W2-2001, Stanford Global Supply Chain Management Forum, Stanford, CA, p. 20, .
Lei, D., Slocum, J.W., Pitts, R.A., 1997. Building cooperative advantage: managing strategic alliances to promote organisational learning. Journal of World Business, 31(3), 203-223.
Leonidou, L.C., Palihawadana, D., Theodosiou, M., 2006. An integrated model of the behavioural dimensions of industrial buyer-seller relationships. European Journal of Marketing, 40(1), 145-173.
Lewin, J.E., Johnston, W.J., 1997. Relationship marketing theory in practice. Journal of Business Research, 39 (1), 23-31.
Liden, R.C., Sparrowe, R.T., Wayne, S.J., 1997. Leader-member-exchange theory: the past and potential for the future. In Ferris, G.R., Rowland, K.M., (Eds.). Research in Personnel and Human Resources Management, JAI Press, Greenwich, CT, 47-119.
Longenecker, C.O., Scazzero, J.A., Stansfield, T.T., 1994. Quality improvement through team goal setting, feedback and problem solving: A field experience. International Journal of Quality and Reliability Management, 11(4), 45-52.
Luhmann, N., 1979. Trust and Power. Wiley, New York, NY.
Luhmann, N., 1995. Social Systems, Stanford University Press, Stanford, CA.
Luo, Y., 1997. Guanxi and performance of foreign-invested enterprise in China: an empirical inquiry. Management International Review, 37(1), 51-70.
Macdonald, S., 1995. Too close for comfort? The strategic implications of getting close to the customer. California Management Review, 37(4) 8-27.
Magara, E., 2002. Applications of digital libraries and electronic technologies in Uganda. African Journal of Library Archives and Information Science, 12(2), 145-54.
Magara, E., Nyumba, J.B., 2004. Towards a school library development policy for Uganda. Library Review, 53(6), 313-22.
Makadok, R., 2001. Toward a synthesis of the resource-based and dynamic-capability views of rent creation. Strategic Management Journal, 22(5), 387-401.
Malhotra, D., 2009. When contracts destroy trust. Harvard Business Review, 87(5), 25.
Malone, T.W., Yates, J., Benjamin, R.I., 1987. Economic Markets and Electronic Hierarchies. Communications of the ACM, 30(6), 484-497.

Man, A.de., Roijakkers, N., 2009. Alliance governance: Balancing control and trust in dealing with risk. Long Range Planning, 42(1).
Mata, F.J., Fuerst, W.L., Barney, J.B., 1995. Information technology and sustained competitive advantage: a resource based analysis. Management Information Systems Quarterly, 19(4), 487-505.
Mattsson, S-A., 1999. Effektivisering av Materialflöden i Supply Chains, Växjö universitet, Växjö,
McAllister, D.J., 1995. Affect- and cognition-based trust as foundations for interpersonal cooperation in organisations. Academy of Management Journal, 38 (1), 24-59.
McCarthy, T.M., Golicic, S.L., 2002. Implementing collaborative forecasting to improve supply chain performance. International Journal of Physical Distribution & Logistics Management, 32(6), 431-54.
McCutcheon, D. M., Meredith, J. R., 1993. Conducting case study research in operations management. Journal of Operations Management, 11(3), 239-256.
Menard, S., 1995. Applied logistic regression analysis. Sage University Paper Series on Quantitative Applications in the Social Sciences, 07-106. Thousand Oaks, CA: Sage.
Meredith, J., 1993. Theory building through conceptual methods. International Journal of Operations and Production Management, 13(5), 3-11.
Metcalf, L.E., Frear, C.R., Krishnan, R. 1992. Buyer-seller relationships: an application of the IMP model. European Journal of Marketing, 26(2), 27-46.
Meunier-FitzHugh, K.L., Piercy, N.F., 2007. Exploring collaboration between sales and marketing. European Journal of Marketing, 41, (7/8), 939-955.
Meyer J.P., Stanley, D.J., Herscovitch, L., Topolnytsky, L., 2002. Affective, continuance and normative commitment to the organisation. A meta-analysis of antecedents, correlates and consequences. Journal of Vocational Behaviour, 61, 20-52.
Meyer, J.P., 1997. Organisational commitment. In Cooper, C.L., Robertson, I.T. (Eds.). International Review of Industrial and Organisational Psychology, 12, 175-228.
Michelle, K., Kenneth, F., 2008. Crime and trust in political and legal institutions in the developing countries: ASC annual meeting, St. Louis (Missouri).
Miles M.B., Huberman, A.M., 1984. Qualitative Data Analysis: A Sourcebook of New Methods, Sage Publications, Beverly Hills.
Miles, M.B., Huberman A.M., 1994. Qualitative Data Analysis: Newburry Park: Sage Publications, Beverly Hills, CA.
Miller, G.J., Whitford, A.B., 2002. Trust and incentives in principal-agent negotiations. Journal of Theoretical Politics, 14 92), 231-267.
Milliken, J., 2001. Qualitative research and marketing management. Management Decision, 39(1), 71-77.
Mintzberg, H., 1983. Structure in Fives: Designing Effective Organisations. Prentice-Hall, Englewood Cliffs, N.J.
Mitchell, K.D., 2000. Knowledge management: the next big thing. Public Manager, 29(2).
Mitchell, R.K., Agle, B.R., Wood, D.J., 1997. Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts. Academy of Management Review, 22(4): 853-886.
Mitchell, S., and S. Shortell., 2000. The Governance and Management of Effective Community Health Partnerships: A Typology for Research, Policy, and Practice

Mitchell, V., 1996. Assessing the reliability and validity of questionnaires: an empirical example. Journal of Applied Management Studies, 5(2), 199-207.
Mitiku, A., Wallace, J.B., 1999. Preparing East African managers for the twenty twenty-first century Journal of Management Development, 18(1), 46-64.
Mohr, J., Nevin, J.R., 1990. Communication strategies in marketing channels: a theoretical perspective. Journal of Marketing, 54(4), 36-51.
Monczka, R., Trent, R., Handfield, R., 1998. Purchasing and supply chain management, South-Western College Publishing, Cincinnati
Monczka, R.M., Petersen, K.J., Handfield, R.B., Ragatz, G.L., 1998. Success factors in strategic supplier alliances: the buying company perspective. Decision Sciences, 29(3), 553-577.
Montgomery, J., 1998. Toward a role-theoretic conception of embeddedness. The American Journal of Sociology, 104(1), 92ï 126.
Morgan, D.L., 1988. The Focus Group Guidebook, Sage, Thousand Oaks, CA, .
Morgan, G., Smircich, L., 1980. The case for qualitative research. Academy of Management Review, 5(4), 491-500.
Morgan, R.M. and Hunt, S.D., 1994. The Commitment-Trust Theory of Relationship Marketing, Journal of Marketing, 58(3), 20-38.
Mudambi, R., Schrunder, C.P., Mongar, A., 2004. How Co-operative is Co-operative purchasing in Smaller Firms? Journal of Long Range Planning, 37, 85-102.
Mugisha, A., 2007. Application of the supply chain management concept in educational institutionsô activities. M.A. dissertation, Makerere University.
Mukherjee, A., Nath, P., 2007. Role of Electronic Trust in Online Retailing. A Re-examination of the Commitment-Trust Theory. European Journal of Marketing, 41(9/10), 1173-1202
Mukherjee, S., Lightfoot, J., Sloper, P., 2000. Improving Communication between Health and Education for Children with Chronic Illness or Physical Disability, Social Policy Research Unit, The University of York.
Myers, R., 1990. Classical and Modern Regression with Applications. 2nd Edition, Boston, MA: Duxbury.
National Public Procurement Integrity Survey Report, 2007. Ministry of Finance Planning and Economic Development. The Government of the Republic of Uganda, 2004.
Naut, B.R., Tyagi, R.K., 2001. Implementable mechanisms to coordinate horizontal alliances. Management Science, 47(6), 787-799.
Naylor, J.B., Naim, M.M., Berry, D., 1999. Leagility, integrating the lean and agile manufacturing paradigms in the total supply chain. International Journal of Economics, 62, 107-118.
Nguyen, T.V., Rose, J., 2009. Building trust ï Evidence from Vietnamese entrepreneurs. Journal of Business Venturing, 24, 165-182.
Nicholas, E., 1999. Quality choice and vertical integration. International Journal of Industrial Organisation
Nohria, N, Eccles, R.G., 1992. Networks and Organisations: Structure, Form and Action, Harvard Business School Press, Boston, MA.
Nohria, N., Gulati, R., 1994. Organisations and Environment. In Smelser, N., Swedberg, R. (Eds.). Handbook of Economic Sociology, Princeton, NJ: Princeton University Press.
Nollet, J., Beaulieu, M., 2003. The development of group purchasing: an empirical study in the healthcare sector. Journal of Purchasing & Supply Management, 9(1), 3-10.

Nollet, J., Beaulieu, M., 2005. Should an organisation join a purchasing group? Supply Chain Management, 10(1), 11-17.
Nooteboom, B., 1996. Trust, opportunism and governance: a process and control model. Organisation studies, 17(6): 985-1010.
Nunnaly, J.C., 1978. Psychometric Theory. New York: McGraw Hill.
Ochola, D.N., 2007. The current status and challenges of collaboration in Library and Information Science (LIS) education and training in Africa. World library and information congress, Durban (South Africa).
Oh, J., Rhee, S.K., 2008. The influence of supplier capabilities and technology uncertainty on manufacturer-supplier collaboration. International Journal of Operations and Production Management, 28(6), 28.
Ordanini, A., Rubera, G., 2008. Strategic capabilities and internet resources in procurement. A resource-based view of B-to-B buying process, 28(1), 27 - 52
Osborn, R.N., Baughn, C.C., 1990. Forms of organisational governance for multinational alliances. Academy of Management Journal, 33, 503-519.
Oum, T.H., Park, J., Kim, K., Yu, C., 2001. The effect of horizontal alliances on firm productivity and profitability: evidence from the global airline industry. Journal of Business Research, 57, 844-853.
Oum, T.H., Park, J.H., Kim, K., Yu, C., 2004. The effect of horizontal alliances on firm productivity and profitability: evidence from the global airline industry. Journal of Business Research, 57(8), 844-853.
Palmer, P.J., 2000. Good talk about good teaching: improving teaching through conversation and community. In DeZure, D. (Eds.). Learning from Change, Stylus, Sterling, VA, 27-28.
Papadopoulou, P., Andreou, A., Kanellis, P., Martakos, P., 2001. Trust and relationship building in electronic commerce. Internet Research: Electronic Networking Application and Policy, 11(4), 322-332.
Park, S.H., Ungson, G.R., 1997. The effect of national culture, organisational complementarity, and economic motivation of Joint Venture dissolution. Academy of Management Journal, 40(2), 279-307.
Parkhe, A., 1993. Strategic alliance structuring: A game theoretic and transaction cost examination of Interfirm cooperation. Academy of Management Journal, 36(4), 794-829.
Passerini, K., 2006. The power of alliances: The case of the Ugandan Infectious Diseases Institute initiative, Society and Business Review, 1(3)
Pavlou, P.A., 2003. Consumer acceptance of electronic commerce ï Integrating trust and risk with the technology acceptance model. Internal Journal of Electronic Commerce, 73, 69-103.
Perry, C., 1998. Process of a case study research methodology for postgraduate research in marketing. European Journal of Marketing, 32(9), 785-802.
Perry, M.L., Sengupta, S., Krapfel, R., 2002. Effectiveness of horizontal strategic alliances in technologically uncertain environments: Are trust and commitment enough? Journal of Business Research, 57, 951-956.
Pesamaa, O., Hair Jr., 2007. More than friendship is required: an empirical test of cooperative firm strategies. Journal of Management Decision, 45 (3), 602 ï 615
Peter, P.J., 1979. Reliability: A Review of Psychometric Basics and Recent Marketing Practices. Journal of Marketing Research, 16, 6-17.
Peteraf, M.A., Bergen, M.E., 2003. Scanning dynamic competitive landscapes: A market-based and resource-based framework. Strategic Management Journal, 24 (10), 1027-1041.

Pett, T.L., Dibrell, C.C., 2001. A process model of global strategic alliance formation. Business Process Management Journal, 7 (4), 349-364.
Pfeffer, J, Salancik, G., 1978. The External Control of Organisations: A Resource Dependence Perspective, Harper & Row, New York, NY, .
Polanyi, M., 1966. The Tacit Dimension. Double Day Anchor, New York.
Polit, D.F., Beck, C.T., Hungler, B.P., 2001. Essentials of Nursing and Research: Methods Appraisal and Utilisation. 5th Ed. Lippincott and Wilkins.
Polychronakis, Y.E. and Syntetos, A.A., 2007. Soft Supplier Management Related Issues: An Empirical Investigation. International Journal of Production Economics, 106 (2), 431-449.
Porter, L., Steers, R., Mowday, R., Boulian, P., 1974. Organisational commitment, job satisfaction and turnover among psychiatric technicians. Journal of Applied Psychology, 59, 603-609.
Powell, T., Dent-Micallef, A., 1997. Information Technology as Competitive Advantage: The Role of Human, Business and Technology Resources. Strategic Management Journal.
Powell, W., 1996. On the nature of institutional embeddedness: labels vs explanation. Advances in Strategic Management, 13, 293-300.
Powell, W.W., DiMaggio, P.J., 1991. The New Institutionalism in Organisational Analysis. University of Chicago Press.
PPDA Act, 2003. Public Procurement and Disposal of Assets Act. The Government of the Republic of Uganda, 2003.
PPDA Annual Report, 2006. Public Procurement and Disposal of Assets. Republic of Uganda, Kampala.
Quinn, J.B., 1999. Strategic outsourcing: leveraging knowledge capabilities. Sloan Management Review, 40(4), 9-22.
Quinn, J.B., Anderson, P., Finkelstein, S., 1996. Managing professional intellect: making the most of the best. Harvard Business Review, March/April, 71-80.
Quinn, R.E., Cameron, K., 1983. Organisational life and shifting criteria of effectiveness: some preliminary evidence. Management Science, 29(1), 33-51.
Rai, A., Borah, S., Ramaprasad, A., 1996. Critical success factors for strategic alliances in the information technology industry: an empirical study. Decision Sciences, 27(1), 141-155.
Raimond, P., 1993. Management Projects. London: Chapman and Hall.
Rawwas, M.Y.A., Vitell, S.J., Bernes, J.H., 1997. Management of conflict using individual power sources: a retailersô perspective. Journal of Business Research, 40, 49-64.
Reichenbach, H., 1938. Experience and Prediction. University of Chicago Press, Chicago.
Remenyi, D., Williams, B., Money, A., Swartz, E., 1998. Doing Research in Business and Management: An Introduction to Process and Method, London, Sage.
Reynolds, L.R., 1996. Reciprocity, redistribution and exchange in US management thought. International Journal of Social Economics 23(8), 3-20.
Ring, P.S., Van de Ven, A.H., 1994. Developmental processes of cooperative interorganisational relationships. Academy of Management Review, 19(1): 90-118.
Rogers, C.R., 1961. On Becoming a Person, London: Constable.
Romano, N., 2003. Customer relationship management for the web-access challenged. A research agenda. Information Technology and Management, 4 (2), 233-256.

Rozenmeijer, F., 2000. Creating corporate advantage in purchasing. Ph.D. dissertation, Eindhoven (the Netherlands): Technical University of Eindhoven.
Rozenmeijer, F., 2000a. How to manage corporate purchasing synergy in a decentralized company? Towards design rules for managing and organising purchasing synergy in decentralized companies. European Journal of Purchasing and Supply Management, 1, 5-12.
Rozenmeijer, F.A., 2000b. Creating corporate advantage in purchasing. Proceedings 9th International IPSERA Conference, London, Canada
Ryan, C., Walsh, P., 2004. Collaboration of public sector agencies: reporting and accountability challenges. International Journal of Public Sector Management, 17(7), 621-31.
Sambharya, R.B., Banerji, K., 2006. The effect of Keiretsu affiliation and resource dependencies on supplier firm performance in the Japanese automobile industry. Management International Review, 46(10, 7-37.
Samiee, S., Walters, P.G.P., 2003. Relationship marketing in an international context: a literature review. International Business Review, 12, 193-214.
Sanders, K., Schyns, B., 2006. Trust, conflict and cooperative behaviour. Considering reciprocity within organisations. Personnel Review, 35(5), 508-518.
Sanjek, R., 1990. A Vocabulary for Field Notes. In Sanjek, R. (Ed.). Field notes, 92-121.
Saunders, M., Lewis, P., Thornhill, A., 2003. Research Methods for Business Students, 3rd ed., Financial Times Prentice-Hall, Harlow.
Saunders, M., Lewis, P., Thornhill, A., 2007. Research Methods for Business Students. FT Prentice Hall London.
Saxton, T., 1997. The effects of partner and relationship characteristics on alliance outcomes. Academy of Management Journal, 40(2), 443-461.
Saz-Carranza, A., Vernis, A., 2006. The dynamics of public networks: a critique of linear process modes. International Journal of Public Sector Management, 19(5), 416-427.
Scanlon, W.J., 2002. Group Purchasing Organisations: Pilot Study Suggests Large Buying Groups Do Not Always Offer Hospitals Lower Prices, GAO, Washington, DC.
Scarnati, J.T., 1997. Beyond technical competence; honesty and integrity. Career Development International, 2(1), 24-27.
Schilling, M.A., Steensma, H.K., 2002. Disentangling the theories of firm boundaries: a path model empirical test. Organisation Science, 13(4), 387-401.
Schotanus, F., 2007. Horizontal cooperative purchasing. Ph.D. dissertation, Enschede (the Netherlands): University of Twente.
Schotanus, F., Telgen, J., 2007. Developing a typology of organisational forms of cooperative purchasing. Journal of Purchasing and Supply Management, 13(1), 53-68.
Schotanus, F., Telgen, J., 2007. Developing a typology of organisational forms of cooperative purchasing. Journal of Purchasing and Supply Management, 13(1), 53-68.
Schotanus, F., Telgen, J., Boer, L. de., 2008. Unfair allocation of gains under the equal price allocation method in purchasing groups. European Journal of Operational Research, 187(1), 162-176.
Schotanus, F., Telgen, J., Boer, L. De., 2010. Critical success factors for managing purchasing groups. Journal of Purchasing and Supply Management, 16(1), 51-60.

Schotanus, F., Telgen, J., Boer, L. De., 2009. Unraveling quantity discounts, Omega, 37(3), 510-521

Schurr, P.H., 2007. Buyer-seller development relationship episodes: theories and methods. Journal of Business & Industrial Marketing, 22(3), 161-170.

Scott, W.R., 1995. Institutions and Organisations. Sage Publications, London.

Senge, P., Kleiner, A., Roberts, C., Ross, R.B., Smith, B.J. 1994. The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organisation. Doubleday, New York, NY.

Shane, S.A., 1998. Making new franchise systems work. Strategic Management Journal, 19(7), 697-707.

Shenhar, A.J., 1998. From theory to practice: toward a typology of project-management styles. IEEE Transactions on Engineering Management, 45(1), 33-48.

Sherman, S., 1992. Are strategic alliances working? Fortune, September, 77-78.

Simatupang, T.M., Sridharan, R., 2002. The collaborative supply chain. The International Journal of Logistics Management, 13(1), 15-30.

Simatupang, T.M., Sridharan, R., 2004a. A benchmarking scheme for supply chain collaboration. Benchmarking: An International Journal, 11(1), 9-30.

Simatupang, T.M., Sridharan, R., 2005. Supply chain discontent. Business Process Management Journal, 11(4), 349-69.

Sin, L.Y.M., Tse, A.C.B., Yau, O.H.M., Chow, R.P.M., Lee, J.S.Y., Lau, L.B.Y., 2005. Relationship marketing orientation: scale development and cross-cultural validation. Journal of Business Research, 58(2), 227-39.

Singh, K., Mitchell, W., 1996. Precarious collaboration: business survival after partners shut down or form new partnerships. Strategic Management Journal, 17(7), 99-115.

Sommer, S., Bae, M., Luthens, F., 1996. Organisational commitment across cultures: the impact of antecedents on Korean employees. Human Relations, 49, 977-93.

Spekman, R., Kamauff, J., Myhr, N., 1998. An empirical investigation into supply chain management: a perspective on partnerships. Supply Chain Management, 3(2), 53-67.

Stalk, G., Evans, P., Shulman, L.E., 1992. Competing on capabilities: the new rules of corporate strategy. Harvard Business Review, 70(2), 54-66.

Stefansson, G., 2002. Business-to-business data sharing: a source for integration of supply chains. International Journal of Production Economics, 75, 135-46.

Stern, L.W. and Reeve, T., 1980. Distribution channels as political economies: a framework for comparative analysis. Journal of Marketing, 47(1), 55-67.

Stevens, J.P., 1992. Applied Multivariate Statistics for the Social Sciences. 2nd Ed, Hillsdate, NJ: Erlbaum.

Stinchcombe, A.L., 1984. Third party buying: The trend and the consequences. Social Forces, 62(4), 861-884.

Stoel, L., 2002. Retail cooperatives: group size, group identification, communication frequency and relationship effectiveness. International Journal of Retail and Distribution Management, 30(1), 51-60.

Strokes, D., Bergin, R., 2006. Methodology or methodolatry? An evaluation of focus groups and depth interviews. Qualitative Market Research: An International Journal, 9 (1), 26-37.

Sukkar, A.A., Hassan, H., 2005. Toward a model for the acceptance of internet banking in developing countries. Information Technology for Development, 11(4).

Sullivan, D.M., Mitchell, M.S., Uhl-Bien, M., 2003. The new conduct of business: how LMX can help capitalize on cultural diversity. In Graen, G.B. (Eds.). Dealing with Diversity, LMX Leadership: The Series, Information Age Publishing, Grennwich, CT, 1, 183-218.

Surana, A., Kumara, S., Greaves, M., Raghavan, U. 2005. Supply-chain networks: a complex adaptive systems perspective. International Journal of Production Research, 43 (20), 4235-68.

Susman, G.I., Evered, R.D., 1978. An Assessment of the Scientific Merits of Action Research. Administrative Science Quarterly, 23, 582-603.

Svensson, G., 2001. Perceived trust towards suppliers and customers in supply chains of the Swedish automotive industry. International Journal of Physical Distribution & Logistics Management, 31(9), 647-662.

Svensson, G., 2002. The measurement and evaluation of mutual dependence in specific dyadic business relationships. Journal of Business and Industrial Marketing, 17(1), 56-74.

Svensson, G., 2004. Interactive vulnerability in buyer-seller relationships: a dyadic approach. International Journal of Physical Distribution & Logistics Management, 34(8).

Swan, J.E. and Trawick, I.F., (1987). Building customer trust in the industrial salesperson: process and outcomes. Advances in Business Marketing, 2, 81-113

Swan, J.E., Trawick, I.F., Silva, D.W., 1985. How industrial salespeople gain customer trust. Industrial Marketing Management, 14, 203-211.

Tabachnick, B.G., Fidell, L.S., 2001. Using Multivariate Statistics, Boston.

Taylor, A., 2006. An operations perspective on strategic alliance success factors. An exploratory study of alliance managers in the soft ware industry. International Journal of Operations and Production Management, 25(5), 469-490.

Telgen, J., (2006). Public Procurement in Perspective, in: International Public Procurement; Cases and Commentary, Knight, L.A., Harland, C.M., Telgen, J., Callender, G., Thai, K.V. and McKen, K.E. (Eds.). Routledge,

Telgen, J., 2007. Public Procurement in Perspective, in: International Public Procurement; Cases and Commentary, Knight, L.A., Harland, C.M., Telgen, J., Callender, G., Thai, K.V. and McKen, K.E. (Eds.). Routledge,

Tella, E., Vilolainen, V.M., 2005. Motives behind purchasing consortia. International Journal of Production Economics, 93-94, 161-168

Tellis, W., 1997. Introduction to case study. The Qualitative Report, 3(2).

Terawatanavong, C., Whitwell, G.J., Widing, R.E., 2007. Buyer satisfaction with relational exchange across the relationship lifecycle. European Journal of marketing, 41(7/8), 915-938.

The Economist, 1999. Mergers and alliances: hold my hand. The Economist, 73-74.

The New Vision, The New Vision Newspaper, 20(198), May 4, 2006.

The New Vision, The New Vision Newspaper, 21(217), September 10, 2006.

Thompson, G., Frances, J., Levacic, R., Mitchell, J., 1991. Markets, hierarchies and networks. London: Sage Publications.

Tigineh, M., 2000. Quality, competitiveness and development in Sub-Saharan Africa.

Triandis, H.C., 2002. Generic individualism and collectivism, in Gannon, M.J., Newman, K.L., The Blackwell Handbook of Cross Cultural Management, Blackwell, London, 16-45.

Trow, M., 1977. Departments as Contexts for Teaching and Learning. In Academic Departments, edited by D.E. McHenry and Associates. San Francisco: Jossey-Bass

Tschannen-Moran, M., Hoy, W.K., 2000. A multidisciplinary analysis of the nature, meaning and measurement of trust. Review of Educational Reserch, 70(4), 547-593

Tucker, L., MacCallum, R., 1997. Exploratory Factor Analysis. Manuscript.

Tumwine, J., 2006. Supplier management in the Ugandan public sector: The case of selected public procuring entities. M.A dissertation, Makerere University.

Turyatunga, B., 2008. Partnership projects in Uganda. MBA dissertation, Uganda Martyrs University, Uganda.

Tyler, B.B., Steensma, H.K., 1995. Evaluating technological collaborative opportunities: a cognitive modelling perspective. Strategic Management Journal, 16, 43-70.

Uhl-Bien, M., Graen, G., Scandura, T., 2000. Implications of leader-member exchange (LMX) for strategic human resource management systems: relationships as social capital for competitive advantage. In Ferris, G.R. (Ed.). Research in Personnel and Human Resource Management, JAI Press, Greenwich, CT, 137-185.

Van Aken, J.E., 1994. De Bedrijfskunde als ontwerpwetenschap, Bedrijfskunde, 66, pp.16-22.

Van de Ven, A.H. 1992. Suggestions for studying strategy process-a research note. Strategic Management Journal, 13, 169-188.

Van de Ven, A.H., Poole, M.S., 1995. Explaining development and change in organisations, Academy of Management Review, 20(3), 510-40.

Van Teijlingen, E.R., 2001. The importance of conducting and reporting pilot studies: the example of the Scottish Births Survey. Journal of Advanced Nursing, 34(3), 289-295.

Van Weele, A.J., 2000. Purchasing and supply chain management: analysis, planning and practice, Thomson Learning Business Press, London.

Varadarajan, P.R., Cunningham, M., 1995. Strategic alliances: a synthesis of conceptual foundations. Journal of the Academy of Marketing Science, 23 (4), 282-296.

Vargas, B., Munoz, F.J., Chinchilla, Z., Herrero, V., 2006. Visualising the marrow of science. Journal of American Society for Information Science and Technology.

Varheim, A., 2009. Public libraries: places creating social capital? Library Hi Tech 27 (3), 372-381.

Varheim, A., Steinmo, S., Ide, E., 2008. Do libraries matter? Public libraries and the creation of social capital. Journal of Documentation, 64 (6).

Vereecke, A., Muylle, S., 2006. Performance improvement through supply chain collaboration in Europe. International Journal of Operations and Production Management, 26(11), 1176-1198.

Vlosky, R.P., Wilson, E.J., 1997. Partnering and traditional relationships in business marketing: An introduction to the special issue, 39 (1), 1-4.

Voordijk, H., 1999. Obstacles and preconditions for logistics and manufacturing improvements in Africa ï a case study. International Journal of Operations and Production management, 19(3), 293-307.

Voss, C., Tsikriktsis, N., Frohlich, M., 2002. Case research in operations management. International Journal of Operations & Production Management, 22(2), 195-219.

Vujnovic, M., Kruckeberg, D., 2005. Imperative for an Arab model of public relations as a framework for diplomatic, corporate and nongovernmental organisation relationships. Public Relations Review, 31, 338-343.

Wagner, S.M., Buko, C., 2005. An empirical investigation of knowledge-sharing in networks. The Journal of Supply Chain Management, 41(4), 17-31.
Wagner, S.M., Lindermann, E., 2008. Determinants of value sharing in channel relationships. Journal of Business and Industrial marketing, 23(8), 544-553.
Walker, R., 1985. Doing Research: A Handbook for Teachers, London.
Walker, H., Knight, L., Harland, C. Fuller, H., Greenwell, Z., 2003. The developing role of purchasing confederations in complex supply networks. Paper presented at British Academy of Management Annual Conference 2003.
Walsh, P.M., Ungson, G.R., 1991. Organisational memory. Academy of Management Review, 16, 57-91.
Wasserman, S., Faust, K., 1994. Social Network Analysis, Methods and Applications, Cambridge University Press.
Wasserman, S., Galaskiewicz, J., 1994. Advances in Social Network Analysis: Research in the Social and Behavioural Sciences, Sage Publications, Thousand Oaks, CA.
Webster, C., 1991. Attitudes toward marketing practices: the effects of ethnic identification. Journal of Applied Business Research, 7 (2).
Webster, F., 1992. The changing role of marketing in the corporation. Journal of Marketing, 56, 1-17.
Weiner, B.J., Alexander, J.A., Zuckerman, H.S., 2000. Strategies for effective management participation in community health partnerships. Health Care Management Review, 25 (3), 48-66.
Werner, N., 2008. Resource dependence theory, how well does it explain behaviour of organisations. Management Review, 19(1), 9-32.
Wernerfelt, B., 1984. A resource-based view of the firm. Strategic Management Journal, 5, 171-80.
Wernerfelt, B., 1994. An efficiency criterion for marketing design, Journal of Marketing Research, 31(4), 462-70.
Whan, G., Taewon, S., 2005. Trust, commitment and relationships in supply chain management: a path analysis, Supply Chain Management: An International Journal, 10(1), 26-33.
Wilding, R., Humphries, A.S., 2006. Understanding collaborative supply chain relationships through the application of the Williamson organisational failure framework. International Journal of Physical Distribution and Logistics Management, 36(4), 309-329.
Wilkinson, I., Young, L., 1999. Conceptual and methodological issues in cross cultural relationship research: a commentary on papers by Ahmed et al., and Coviello. Australasian Marketing Journal, 7, 37-40.
Williams, M., 2008. Building trust and cooperation in boundary spanning teams. ILR Collection Policy and Briefs, 26.
Williamson, O., 1981. The economics of organisation: the transaction cost approach. American Journal of Sociology, 87(3), 548-577.
Williamson, O.E., 1983. Credible commitments: using hostages to support exchange. American Economic Review, 519-538.
Williamson, O.E., 1985. The Economic Institutions of Capitalism. The Free Press, New York, NY.
Wilson, D.T., 1995. An integrated model of buyer-seller relationships. Journal of the Academy of Marketing Science, 23(4), 335-345.

Wynstra, F., van Weele, A., Weggemann, M., 2001. Managing supplier involvement in product development: three critical issues. European Management Journal, 19(2).

Yilmaz, C., Hunt, S.D., 2001. Salesperson cooperation: the influence of relational, task, organisational and personal factors. Journal of the Academy of Marketing Science, 29 (4), 335-357.

Yin, R., 1994. Case Study Research. Beverly Hills, CA: Sage Publications.

Yin, R., 2003. Case Study Research. 3rd Ed. Sage Publications.

Yin, R., 2004. Case Study Methodology. Sage CA.

Yin, R.K., 1989. Case Study Research: Design and Methods, Sage Publications, Newbury Park, CA, Applied Social Research Methods Series, 4

Zineldin, M., Bredenlow, T., 2003. Strategic alliance: synergies and challenges: a case of strategic outsourcing relationship. International Journal of Physical Distribution and Logistics, 33 (50, 449-464.

Zineldin, M., Jonsson, P., 2000. An examination of the main factors affecting trust/commitment in supplier-dealer relationships: an empirical study of the Swedish wood industry. The TQM Magazine, 12(4), 245-66.

Zikmund, W.G., 1997. Exploring Marketing Research, 6th Ed. The Dryden Press, Fort Worth, TX.

Zucker, L.G., 1986. Production of trust: institutional sources of economic structure, 1840-1920. Research in Organisational Behaviour, 8, 53-111.

Appendices

Appendix A: Survey data collection questionnaire

QUESTIONNAIRE

Dear respondent

This questionnaire instrument is to collect data on ***behavioural issues in horizontal purchasing collaboration in developing countries, the case of public units in Uganda.***

In this survey, we examine the behavioural factors and how they influence horizontal collaborative purchasing in Uganda, with a view to applying this knowledge to establishing/improving such initiatives.

Thank you in advance, for accepting to be part of this survey. **Your answers will be treated with strict confidence. You will get a copy of the final results.** Please kindly spare some of your valuable time and answer the questions.

A. General information

Name of Respondent (Optional) é é é é é é é é é é é .....

Name of the entityé ..

Present titleé .....

Does your entity collaborate with other entities? YES / NO

If yes, list the entities you collaborate with

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é .

If yes, in which activities do you collaborate with other entities

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é

Give a brief description on how the collaboration is carried out.

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A. Commitment

Commitment is the belief that the collaborating partners are willing to devote energy to sustaining the relationship. That is through commitment, partners dedicate resources to sustain and further the goals of the collaboration.

Here are some of the indicators of inter organisational commitment. Please kindly tick the appropriate response (1=strongly disagree, 2=disagree, 3=not sure, 4=agree and 5=strongly agree).

Instrumental commitment
Instrumental commitment is where an actor is constrained by the costs and inconveniences of leaving the current collaboration. In our case, the PDE will keep going on, because leaving will be inconveniencing and will involve financial and non financial costs.

Statement	1	2	3	4	5
Changing the horizontal collaborative purchasing with other PDEs now would be too disruptive for our activities, so we continue to work with them.					
We need to keep working with the other PDEs since leaving would create hardship for our organisation.					

Normative commitment
Normative commitment is based on the PDEôs value in the collaboration. A value is a preference of one mode of behaviour over another. Normative commitment is about obligations that members feel to remain with an organisation and build on generalised cultural expectations.

Statement	1	2	3	4	5
Our relationship with PDES we collaborate with is mainly based on the similarity of our values.					
The reason we work with other PDEs is because of what they stand for, their values.					
Our procurement values, and those of the PDEs we collaborate with are becoming more similar.					
The objectives other PDEs stand for are important to us.					
If the values for PDEs we collaborate with were different, we would not be as attached to them.					

Affective commitment
Affective commitment relates to commitment by a PDE in relation to the identification and involvement with the others. It is a feeling of belonging, and a sense of attachment to the collaboration.

Statement	1	2	3	4	5
We take up our collaboration with other PDEs, to friends and acquaintances, as a great relationship to be connected with.					
We feel that the PDEs we collaborate with, view us as being an important team member rather than just being another PDE.					
We are proud to tell others that we are associated with the other PDEs.					

B. Trust
Trust is oneôs belief that the other PDE will act in a consistent manner and do as promised. It gives the confidence that the other PDE can be relied upon. Trust is operationalised in five dimensions: dependable/reliable, honest/candid, competent, partner orientation, and likeable/friendly.
Here are some of the indicators of inter organisational mutual trust. Please kindly tick the appropriate response (1=strongly disagree, 2=disagree, 3=not sure, 4=agree and 5=strongly agree).

Mutual trust

This is about the level of dependability/reliability, honesty, competency, partner orientation and friendliness your PDE has over the collaborating ministries.

Statement	1	2	3	4	5
We have confidence in the PDEs we collaborate with					
The PDEs we collaborate with always inform us immediately if problems occur in their purchasing operations that may have an impact on the collaboration					
The PDES we collaborate with are very competent.					
The PDEs we collaborate with are always obliging.					
The PDEs we collaborate with always provide information we require.					
The PDEs we collaborate with are always cooperative.					
The PDEs we collaborate with always keep their promises.					
We always receive a good response from the PDEs we collaborate with.					
The PDEs we collaborate with are always polite.					

C. Dependence

Dependence is the extent to which a partner provides important and critical resources for which there are few alternative sources of supply. It is the reliance on actions of another party to achieve certain goals or gratification.

Here are some of the indicators of dependence. Please kindly tick the appropriate response (1=strongly disagree, 2=disagree, 3=not sure, 4=agree and 5=strongly agree).

Statement	1	2	3	4	5
Our PDEôs activities have a strong time based synchronisation with the other collaborating PDEsô activities.					
Our PDE has a close relationship with the PDEs we collaborate with.					
Our PDEôs relationship with the collaborating PDEs is regulated in a written contract.					
Our PDE is well aware of the collaborating PDEsô strengths and weaknesses.					
Our PDE has a high degree of technical agreement with the PDEs we collaborate with.					
Our PDEôs activities are developed through the knowledge that is interchanged with the collaborating PDEs.					
Collaborating PDEs influence our PDEôs reputation.					
Our PDE strives to maintain a common information technology standard of hard and soft ware with the collaborating PDEs.					

D. Reciprocity

This is about an actor or an organisation giving to the other one in return for something. Each party gets something from the other.

Here are some of the indicators of reciprocity. Please kindly tick the appropriate response (1=strongly

disagree, 2=disagree, 3=not sure, 4=agree and 5=strongly agree).

Statement	1	2	3	4	5
Our PDE regards ónever forget a good turnô as our motto.					
We keep our promises to each other in any situation.					
If the PDEs we collaborate with give assistance when my PDE had difficulties, then I would be responsible for returning its kindness.					
Even if we donôt anticipate immediate benefit, we offer our service to the collaborating PDEs.					
We donôt have to get a return of equal value as we offered from the PDEs we collaborate with.					
We donôt investigate discrepancies in performance of activities we are involved in with the collaborating PDEs.					

E. Level of Collaboration

Collaboration is the degree to which partners are able to work together in a joint fashion toward their respective goals. Information sharing, decision synchronisation and incentive alignment. We study the level of collaboration by considering the extent to which interaction exists while undertaking the collaboration tasks.

Here are some of the indicators of collaboration. Please kindly tick the appropriate response (1=strongly disagree, 2=disagree, 3=not sure, 4=agree and 5=strongly agree).

Level of information sharing

Statement	1	2	3	4	5
In our PDE, we very frequently share information on suppliers with other PDEs.					
In our PDE, we very frequently share information on product/service specification with other PDEs.					
In our PDE, we very frequently share information on contracting with suppliers; with other PDEs.					
In our PDE, we very frequently share information regarding price changes with the PDEs we collaborate with.					
In our PDE, we very frequently share information regarding supplier performance with other PDEs.					
In our PDE, we very frequently share information regarding on hand inventory levels with other PDEs.					
In our PDE, we very frequently share information regarding market developments with other PDEs.					

Level of decision synchronisation

Statement	1	2	3	4	5
In our PDE, we very frequently jointly carry out plans on needs specification with other PDEs.					
In our PDE, we very frequently use supplier list with other PDEs					
In our PDE, we very frequently jointly carry out plans on contracting with other PDEs.					
In our PDE, we very frequently have common purchasing goals with the other PDEs.					
In our PDE, we very frequently share best practices with other PDEs.					
In our PDE, we very frequently carry out joint training programmes across all collaborating PDEs.					

Level of incentive alignment

Statement	1	2	3	4	5
In our PDE, we very frequently share the savings made on reduced costs with other PDEs.					

In our PDE, we are ready to share risks of the collaboration with the other PDEs.					
In our PDE, we very frequently have made some investments (e.g. in knowledge accumulation) with other PDEs.					

Benefits of individual entity

Our PDE has achieved the following benefits from collaboration initiatives:

Statement	**1**	**2**	**3**	**4**	**5**
Sharing of information reduces transaction costs.					
There is existence of state of the art purchasing process (e.g. through . uniform purchasing procedures and common training)					
There is standardisation of requirements and sharing suppliers across PDEs					
Better purchasing procedures are carried out and at minimal costs					
There are proper quantities of supplies					
Sharing resources (e.g. human resources) with other PDEs					

Thank you for your time

Appendix B: Data collection tool for importance of different factors to horizontal purchasing collaboration in Ugandan PDEs

QUESTIONNAIRE

Dear Procurement officers and members of contracts committees

This questionnaire is part of the on going study to examine the importance of different factors to horizontal purchasing collaboration in Ugandan Procuring and Disposing Entities (PDEs).

Please rate how important each of the named factors is to horizontal purchasing collaboration to Ugandan PDEs.
Note:

1 = Not at all important
2 = Unimportant
3 = Not sure
4 = Important
5 = Very important

	Factor	1	2	3	4	5
1	Collaboration knowledge					
2	Collaboration structure					
3	Commitment					
4	Communication					
5	Dependence					
6	Governance					
7	Government intervention					
8	Internal support					
9	Reciprocity					
10	Sharing mechanism					
11	Size					
12	Trust					
13	Uniformity of the members					

Thank you so much for your participation

Appendix C: List of abbreviations

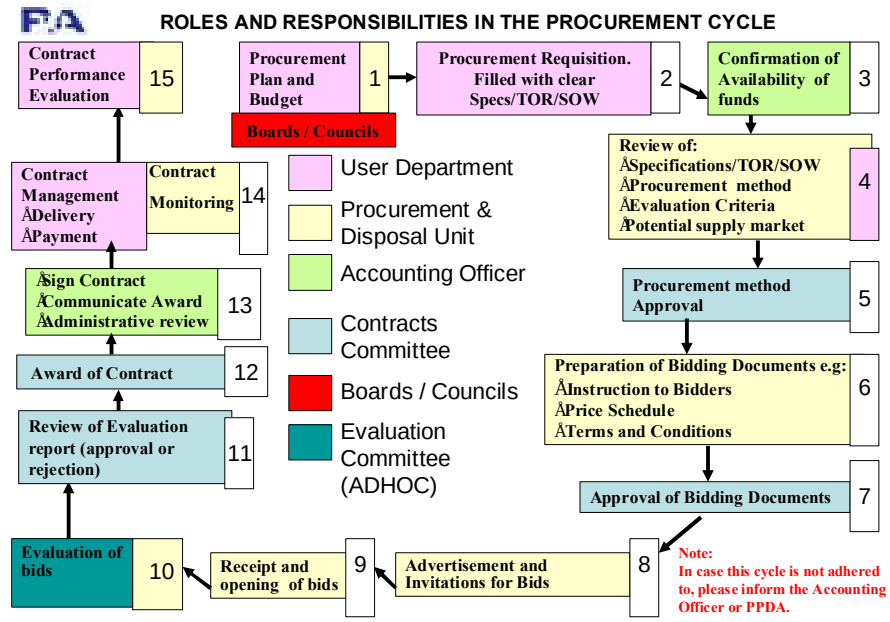
AC	Affective Commitment
ACCA	Association of Certified Chartered Accountants
CHOGM	Commonwealth Heads Of Government and Ministers
CIPS	Chartered Institute of Purchasing and Supply
CTB	Central Tender Board
CVI	Content Validity Index
D	Dependence
DFID	Directorate For International Development
DPP	Directorate of Public Prosecution
DS	Decision Synchronisation
e.g.	For example
Fig.	Figure
GOU	Government Of Uganda
H	Hypothesis
IA	Incentives Alignment
IC	Instrumental Commitment
ICT	Information and Communication Technology
IE	Individual Entity benefits
IFMS	Integrated Financial management Systems
IMP	International Marketing and Purchasing
IRM	International Relationship Marketing
IS	Information Sharing
IT	Interactive Trust
JLOS	Justice Law and Order Sector
JSC	Judicial Service Commission
KYU	Kyambogo University
MAAF	Ministry of Agriculture Animal Industry and Fisheries
MBA	Master of Business Administration
MCIPS	Member Chartered Institute of Supplies and management
MEMD	Ministry of Energy and Mineral Development
MES	Ministry of Education and Sports
MGLSD	Ministry of Gender Labour and Social Development
MILT	Member Institute of Logistics and Transport
MOFPED	Ministry Of Finance Planning and Economic Development
MOIA	Ministry Of Internal Affairs
MOJCA	Ministry Of Justice and Constitutional Affairs
MRO	Maintenance Repair and Operational
MT	Mutual Trust
MUBS	Makerere University Business School
MWHC	Ministry of Housing Works and Communication
MWLE	Ministry of Water Lands and Environment
NC	Normative Commitment
NHPC	National Housing and Population Census
NPPIS	National Public Procurement Integrity Survey
NPT	Netherlands Programme for Institutional Strengthening Post Secondary Education and Training Capacity
NWSC	National Water and Sewerage Cooperation
PDE	Procuring and Disposing Entity

PDEs	Procuring and Disposing Entities
PDU	Procurement and Disposal Unit
PPDA	Public Procurement and Disposal of Assets
R	Reciprocity
RBV	Resource Based View
SWAp	Sector Wide Approach
TCA	Transaction Cost Analysis
TCE	Transaction Cost Economics
TCT	Transaction Cost Theory
UPF	Uganda Police Force
UPS	Uganda Prisons Service
UShs.	Uganda Shillings
VRIO	Value Rare Inimitable Organisational support

Appendix D: Variables and Parameters

Asymp.	Asymptotic
df	Degrees of freedom
N	Total number of units in a group
r	Correlation
Sig.	Significance
std.	Standard deviation

Appendix E: The procurement cycle; roles and responsibilities



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Appendix F: An overview of the multidimensional construct of trust

Trust Dimensions	Source
Ability	e.g. Sitkin and Roth (1993); Cook and Wall (1980); and Deutsch, 1960
Altruism	e.g. Frost et al. (1978)
Acceptance	e.g. Bonoma (1976)
Benevolence	e.g. Mayer et al. (1995) ; Solomon (1996) and Strickland (1958)
Business sense and judgment	e.g. Gabarro (1978)
Character	e.g. Gabarro (1978)
Competence	e.g. Butler (1991); Butler and Cantrell (1984); Lieberman (1981); Rosen and Jerdee (1977) and Kee and Knox (1970)
Confidence	Dwyer and Lagace (1986); Luhmann (1979); and Kwant (1965)
Congruence	Sitkin and Roth (1993)
Consistency	e.g. Butler (1991) and Butler and Cantrell (1984)
Fairness	e.g. Butler (1991) and Hart et al. (1986)
Faith	e.g. Zaltman
Integrity	e.g. Butler (1991); Hart et al. (1986); Butler and Cantrell (1984); Gabarro (1978) and Liebermann (1981)
Intentions or motives	e.g. Cook and Wall (1980); Kee and Knox (1970); Giffin (1967) and Deutsch (1960)
Liking	e.g. Swan and Trawick (1987) and Swan et al. (1985)
Loyalty	e.g. Butler and Cantrell (1984)
Motivation to lie	e.g. Hovland et al. (1986)
Openness of Management	e.g. Hart et al. (1986)
Predictability	e.g. Coleman (1990); Dasgupta (1988); Gambetta (1988); Good (1988); Lewis and Weigert (1985); Luhmann (1979); Deutsch (1973); Rotter (1967); Parsons (1964) and Deutsch (1958)
Respect	e.g. Jackson (1985a, b)
Security	e.g. Zand (1978)

Appendix G: Detailed responsibilities of categories of respondents

Respondents	Purchasing tasks
Procurement officers (PDU)	Manage procurement activities of the entity
	Support the functioning of the contracts committee
	Implement the decisions of the contracts committee
	Liaise directly with the PPDA on matters within jurisdiction
	Act as a secretariat to the contracts committee
	Plan the procurement activities of the entity
	Recommend procurement procedures
	Check and prepare statements of requirements
	Prepare bid documents
	Prepare advertisements of bid documents
	Issue bidding documents
	Maintain a providers list
	Prepare contract documents
	Issue approved contract documents
Contracts committee	Authorise the choice of procurement procedure
	Authorise solicitation documents before issue
	Authorise technical, financial or combined evaluation reports
	Authorise contract documentation in line with the authorised evaluation report
	Authorise any amendment to an awarded contract
	Recommend for the delegation of a procurement function by the accounting officer whenever the necessity arises
	Award contracts in accordance with applicable procurement procedures as the case may be
Finance officers	Participate in procurement plans
	Participate in initiating procurement requirements
	Monitoring purchase deliveries
	Arrange for payments to providers
	Participate in supplier evaluation
Accounting officer	Establishing a contracts committee and appointing members
	Causing to be established a PDU staffed at an appropriate level
	Advertising bid opportunities
	Communicating award decisions
	Certifying the availability of funds to support procurement acataivities
	Signing contracts for procurement activities on behalf of the entity
	Investigating complaints by providers
	Submitting a copy of any complaints and reports of the findings to PPDA
	Ensuring the implementation of the awarded contract is in accordance with the terms and conditions of the award.

Appendix H: Adjustments to the standard research instruments

Variable	Question	Reason(s) for removal
Trust	Even if we wanted to leave our collaboration with other PDEs, we wouldnâ because our losses would be significant	It overlapped with another one in the Ugandan context
Trust	We always get correct information from the PDEs we collaborate with	It overlapped with another one in the Ugandan context
Level of collaboration	In our PDE, we very frequently jointly decide on the inventory order levels of products/services with other PDEs	It is largely not about horizontal purchasing collaboration
Level of collaboration	In our PDE, we very frequently consult on the monitoring systems of the suppliers with other PDEs	
Benefits for individual entity	There is an information centre, which was started as a result of collaboration, which has other benefits for our operations	It largely does not exist in the Ugandan practice

Appendix I: Practical check collaborative initiatives cases

The JLOS PDEs

- Ministry of Justice and Constitutional Affairs
- Ministry of Internal Affairs
- The Judiciary
- Uganda Prison Services
- Uganda Police Force
- The Directorate of Public Prosecutions
- The Judicial Services Commission
- The Uganda Law Reform Commission
- Ministry of Local Government ï Local Council Courts
- Ministry of Gender, Labour and Social Development

The ministry collaboration PDEs

- Ministry of Agriculture Animal Industry and Fisheries
- Ministry of Finance Planning and Economic Development
- Ministry of Water Lands and Environment
- Ministry of Works Housing and Communication
- Ministry of Energy and Mineral Development
- Ministry of Education and Sports
- National Water and Sewerage Corporation

The state enterprises collaboration PDEs

- National Housing and Construction Company
- Uganda Printing and Publishing Company
- Uganda Property Holdings Company
- Uganda Electricity Generation Company
- Uganda Electricity Transmission Company

The statutory bodies PDEs

- Cotton Development Organisation
- Dairy Development Authority
- Uganda Coffee Development Authority
- Uganda Investment Authority

Appendix J: Responses on what were being missed before undertaking purchasing collaborative initiatives

JLOS collaboration	Ministry collaboration	State Enterprises collaboration	Statutory bodies collaboration
• Before collaboration, we could not share information on suppliers, for example other PDEs would buy similar products at cheaper prices. • Costs of operations were higher than now • Activities that require joint effort yet done individually were malfunctioning • There was shortage of supplies because every PDE thought it was the role of others to purchase • Lack of skilled personnel was rampant • There was no harmonisation of specifications • We lacked trust of the donors as they could not trust one PDE • Resources could not be shared • Fewer suppliers with their associated inefficiencies	• Operational costs like for individual meetings were much higher • No known experts in the area of purchasing to consult in case of complications • Information would be with a few PDEs and others would not know • Information got in individual entities would be sometime inaccurate, and there was no other PDE to compare with • Most professionals in purchasing were not known, yet they existed.	• No adequate staffing, so there were a lot of errors in tenders • Lack of consultation created a lot of delays in meeting deadlines • Disclosure culture was a big problem	• Due to lack of technical knowledge, some of the PDEs incurred costs because they were sued of incompetence • Some donor funds were not received because of incompetence by the procurement staff • Different specifications of similar and related products • The low price and high volume suppliers could not work with single PDEs • Resources could not be shared like the IFMS • There was no learning from each other

Appendix K: Responses on what was being missed on our suggestions on how ho handle horizontal purchasing collaboration

	Actions for improvement of factors	Mechanism to start and operate collaborative initiative	Method of public purchasing tender
JLOS	• Set a central office for the collaboration activities • Avoid having main leading PDEs, treat all equally • Coaching should be used to give officers hands on experience • Include opinion leaders in meetings • Take care of existing systems of work	• Handle outcomes of the collaboration • Establishing a conflict resolution committee	• Some aspects of contract management like follow up of contract implementation, certification of work, making variations to the contract and contract clause amendment can be done jointly
Ministries	• Start a forum for brainstorming on collaboration issues • Ensure equal influence from all members • All layers of PDE (top, middle and low) should be involved • Include opinion leaders	• Establishing brainstorming forum is crucial • Balancing of power of member PDEs is important • The opinion leaders miss on stakeholders at all stages of the model	• It is possible to implement central procurement model since the PDEs have same source of funds and all work towards similar government goals.
State enterprises	• Put a conflict resolution structure in initial years before trust develops • Do fewer activities • Put in place physical resources of collaboration like office, chairs, stationery etc • Ensure right timing to start collaboration like CHOGM urgent situations • Accommodate existing methods of individual PDEs	• Prioritising activities of collaboration • Establishing a central coordinating office is important in the tasks at the emergence stage • The opinion leaders miss on stakeholders at all stages of the model	• In addition to joint contracts committee, include advisors from each PDE to the entity, who are specialists in the goods/services/works being purchased • Participating PDEs in a tender should pay some fee in addition to signing a register as a sign of commitment for planning purposes
Statutory enterprises	• Handle adequate tasks according to level of collaboration • Appoint a collaboration coordinator • Sensitisation seminars • Realign mission statements of PDEs	• Prioritising activities of collaboration • Collaboration coordinator should be part of stakeholders • Increase on sensitisation workshops to reduce uncertainties at the emergence stage	• The joint prices data bases should reflect a range, because prices in Uganda are not stable, since they depend on the exchange rates • PDEs should shift to the central contracting model after some three years of group contracting model

Appendix L: Responses on what is least activity to be done on the suggested actions for improving horizontal purchasing collaboration

Suggested action	frequency
Network PDEs for easy information dissemination	4
Increase disclosure and minimize secrets	4
Increase disclosure	3
Transfers to PDEs in same collaborative initiative	2
Update information at least per 14 days	2
Respond to issues within 14 days	2
Sensitise top management to win their support	1
PDEs should be fair to each other	1
Encourage respectful practice	1
Develop and use action plans	1
Do what you say	1
Be consistent	1
Share leisure time e.g. corporate games	1
Mix formal and informal structures	1
Establish personal rapport with each other	1
Align goals of all collaborating PDEs	0
Stay in collaboration for long	0
Upgrade procurement positions to commissioner	0
Monthly check that all promises are met	0
Aim at achieving beyond normal results	0
Have constant interactions	0
PDE officers should not be frequently transferred	0
Set deadlines and cerebrate celebrate when they are achieved	0
Total	**26**

Appendix M: Responses on what in particular would be recommended to new starters

Suggested action	frequency
Sensitise top management to win their support	22
Align goals of all collaborating PDEs	20
Develop and use action plans	19
Establish personal rapport with each other	19
Have constant interactions	18
Respond to issues within 14 days	18
Stay in collaboration for long	15
Mix formal and informal structures	14
Encourage respectful practice	12
Share leisure time e.g. corporate games	12
Upgrade procurement positions to commissioner	11
Be consistent	11
Transfers to PDEs in same collaborative initiative	11
PDE officers should not be frequently transferred	10
Set deadlines and celebrate when they are achieved	10
Increase disclosure	10
Aim at achieving beyond normal results	9
Do what you say	9
Minimize secrets	9
PDEs should be fair to each other	8
Network PDEs for easy information dissemination	8
Monthly check that all promises are met	7
Update information at least per 14 days	7

Appendix N: Recommendations for further research

- **Vertical purchasing collaboration**
  In our thesis, we considered horizontal purchasing collaboration in the public sector, where all PDEs are at the same level and the upward and downward supply chain is not very applicable. It would be interesting for future studies to consider behavioural factors in vertical purchasing collaborations, in the private sector. The private sector especially in the developed countries is not bound by rules like in the public sector, and allows flexibility by procurement officers to take decisions about collaboration; perhaps this would have a different impact on behavioural factors than in the public sector.
- **Holistic way to handle behavioural factors**
  In this thesis, we considered four behavioural factors. These are trust, commitment, reciprocity, and dependence. However, we recognise that there are other factors in the developing countries that could as well explain horizontal purchasing collaboration. These include communication, understanding, conflict, adaptation, satisfaction, et cetera. We also note that most research on behavioural aspects has been fragmented to give concrete and conclusive results on relationships (Leonidou et al, 2006). Future research could study these behavioural factors together and use the structural equation modelling statistical tool to assess the relationships comprehensively in a systematic and holistic way (Hair et al., 2002).
- **Competences and horizontal purchasing collaboration**
  From our study, we found out that competences of the PDEs is one of the main reasons to justify horizontal purchasing collaboration. One would be interested to carry out research to answer questions like: What would happen if after sometime in the collaboration, every PDE has developed minimal competences to enable it to operate on its own? Would there be need for horizontal purchasing collaboration?
- **Relative importance of behavioural factors at emerging and operational phases**
  In our study, we found out that behavioural factors are important at the beginning of horizontal purchasing collaboration. This is because they predict more than half (53.9%) of the variability in the level of collaboration. Operational and financial factors on the other hand may or may not become more important with time. It would be interesting to carry out a longitudinal study to check the relative importance of behavioural, operational, and financial factors in horizontal purchasing collaboration in the developing countries context, over time.
- **Low to medium level of behavioural factors in Ugandan PDEs**
  In the study, a low to medium level of the considered behavioural factors in PDEs in horizontal purchasing collaboration was noted. It would be interesting to study if the level of these behavioural factors will increase after some time. A similar study in a period of about five years would give insightful conclusions, as to whether the low level of behavioural factors on collaboration is because of the time dimension or other reasons.
- **Building behavioural factors**
  In the study, we show how horizontal purchasing collaboration should be handled, by showing how trust, commitment, dependence, and reciprocity should be increased in the collaboration. We derived these actions from our findings. Future

research projects in carrying out large scale surveys to test how these actions can influence each of the factors could be interesting.

- **Personal trust and professional/organisational trust and commitment**
  In our research, and in most existing literature, the emphasis is on organisational trust predicting the level of collaboration. We noted, however, that staff members of a PDE tend to collaborate with the other PDE because of personal qualities of its staff. This is even more relevant for emerging collaborations where there are no sufficient structures for organisational trust. It would therefore be interesting to use the individual staff in collaborating PDEs as the unit of analysis and check whether the improvement of horizontal purchasing collaboration is more related to the personalities than the whole organisational credentials. This is likely to show insightful results as individual behaviours in developing countries may differ from the individual behaviours in the developed countries.
- **Extensions to the conceptual model**
  Our model tests relationships we were interested in, but more relationships can be hypothesized. For example, more moderating and intervening variables can be introduced to better understand the relationships.
- **Model for starting and or sustaining a horizontal purchasing collaborative initiative**
  In the development of our suggested model for starting and or sustaining a horizontal purchasing collaborative initiative, we did not check whether an existing model fits with the Ugandan context. We started developing a new model from scratch. We could not check whether actions that were not mentioned are not important in the developing country context or that the respondents simply did not think of it. This leaves an interesting opportunity for further research.

About the author

Moses Muhwezi was born on December 23, 1970 in Mitooma Uganda. He had his secondary school education at Ntare School. He graduated with a Bachelor of Commerce degree and a Master of Business Administration degree; both from Makerere University.

Muhwezi also completed professional studies in Chartered Institute of Purchasing and Supply Management (United Kingdom) and NEVI (the Netherlands). In 2005, he was awarded a Master of Philosophy degree (Procurement) from Maastricht School of Management (the Netherlands).

In 2006, he started as a Ph.D student of purchasing management at the Faculty of Management and Governance, University of Twente, the Netherlands. His Ph.D project entitled ñhorizontal purchasing collaboration in developing countriesò resulted in this thesis.