

TABLE OF CONTENTS

ACKNOWLEDGEMENT	i
List of Tables	vi
Table of Figures	vii
1 INTRODUCTION	1
1.1 Background of the study.....	1
1.2 Statement of the Problem	3
1.3 Objectives of the study	4
1.4 Conceptual framework for the study	4
1.5 Organization of the study	7
2 LITERATURE REVIEW ON INSTITUTIONAL ARRANGEMENTS AND TRANSACTION COST	8
2.1 Understanding agricultural transformation in developing economies; Theoretical perspectives	8
2.2 Concepts of Institutional environment and Institutional Arrangements.....	9
2.3 Theoretical concepts on transaction cost	10
2.3 Factors determining transaction costs	13
2.4 Understanding Institutional Arrangements.....	15
2.4.1 Spot market arrangement	15
2.4.2 Contractual arrangements	16
2.5 Contractual arrangements; models and types	17
2.6 Role of contractual arrangements in minimizing transaction cost	19
2.7 Marrying contractual arrangements and trader cooperation.....	21
2.8 Transaction costs, contractual arrangements, and welfare of agricultural producers....	22
2.10 Conclusion	24
3 STUDY AREA AND DATA COLLECTION	25
3.1 Brief overview of the study area	25
3.1.1 Camel rearing in the study region.....	25
3.1.2 Camel Milk Production and marketing.....	28
3.1.3 Camel milk marketing in the study area	29
3.1.4 Sampling procedure	30
3.1.5 Data type and collection methods.....	30
3.2 Concluding Remarks	32

4 DESCRIPTIVE ANALYSIS	33
4.1 Producer attributes and institutional arrangements	33
4.1.1 Households milk production Characteristics	37
4.1.2 Households milk handling characteristics at the farm level	40
4.1.3 Milk storage at farm level.....	44
4.1.4 Camel Milk marketing and transaction cost characteristics	46
4.2 Camel milk traders' attributes and institutional arrangements	52
4.2.1 Structure of camel milk market and transaction characteristics	54
4.2.2 Transaction cost-related characteristics	58
4.3 Concluding remarks	60
5 IMPORTANT TRANSACTION COSTS IN THE CAMEL MILK TRADE	61
5.1 Conceptual framework	61
5.2 Empirical literature on marketing decisions.....	62
5.3 Analytical framework	64
5.4 Description of variables used in the analysis	66
5.4.1 Transaction costs.....	66
5.4.2 Household demographic and socioeconomic attributes	68
5.5 Descriptive statistics of the variables used in the analysis	71
5.5.1 Econometric estimation results and discussions.....	72
5.6 Concluding remarks	75
6 TRANSACTION COSTS, CONTRACTUAL ARRANGEMENTS AND INCOMES	76
6.1 Analytical framework	76
6.2 Results and discussions	80
6.2.1 Results of incomes of traders and milk producers	80
6.2.2 Econometric analysis	81
6.3 Conclusion	86
7 SCOPE FOR EFFICIENCY IMPROVEMENT WITH INSTITUTIONAL INNOVATIONS	87
7.1 Conceptual Framework	87
7.2 Determining the efficiency of transport; returns to transportation cost	89
7.3 Economies of scope	93
7.4 Summary and policy Recommendation	97
8 MODELLING CONTRACTUAL PREFERENCES IN CAMEL MILK TRADE; TRANSACTION COST AND RISK	99
8.1 Conceptual framework	99
8.2 The market decision problem	100
8.3 Data used in the analysis	103
8.4 Model Results and discussions.....	104

8.4.1 Effect of the procurement price on volume allocation and income	104
8.4.2 Effect of farmer's monitoring and transport costs	106
8.4.3 Trader cooperative's transport and cost of organizing collective action.....	111
8.4.4 Effect of risk averseness of farmers	113
8.5 Discussion and conclusion	114
9 CONCLUSIONS AND POLICY RECOMMENDATIONS	116
9.1 Summary of key findings	116
9.1.1 Research problem and approach	116
9.1.2 Overview of camel milk production and marketing at the farm level	117
9.1.3 Camel milk traders' attributes and institutional arrangements	118
9.1.4 Important transaction costs in the camel milk trade	119
9.1.5 Transaction costs, contractual arrangements and incomes	120
9.1.6 Estimating the scope for efficiency improvement with institutional innovations.....	120
9.1.7 Modelling Contractual preferences in the camel milk trade.....	121
9.2 Policy Implications and general recommendations	122
9.2.1 Support for agricultural market information.....	123
9.2.2 Improvement of road infrastructure	123
9.2.3 Support for storage in milk production areas	124
9.2.4 Streamlining storage and transportation	124
9.2.5 Organizing collective action at farmer level.....	124
ZUSAMMENFASSUNG	126
REFERENCES	133