Journal of Modern Accounting and Auditing, March 2016, Vol. 12, No. 3, 156-164

doi: 10.17265/1548-6583/2016.03.003



# Negotiation Processes in the Food Trade for Raw Material Supply Transactions

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This scientific study focuses on the economic and especially the psychosocial factors of success in negotiation processes between buyers (procurers) and suppliers (producers) in the food trade. In particular, it examines the economic and mental satisfaction in the decision-making and in the negotiation processes for efficient food supply. It is examined primarily as transparency in addition to Harvard concept at annual meetings (or between the year) favoring a satisfactory result for both negotiators. In a structural equation model, the Harvard negotiating points are brought with transparency in communication and this in terms of economic success experiences and the sociomental satisfaction.

Keywords: decision theory, negotiation theory, negotiation optimization, satisfaction

#### Introduction

## Every Day New Horror Stories Let Us Scare Up...

The number of people on this earth is increasing, but on the other hand raw materials, especially food, are distributed unequally.

A lot of people do not get any of them, or the prices where you still can get them are growing and growing and growing... (Sarris, Conforti, & Prakash, 2011).

#### So We All Believe...

If humans do not have enough to eat or drink, they would become "uncontrollable". It cannot be that many countries are not available to global goods.

With the delivery of food and beverage, people will face survival. It may not be that the levy of a few controls and is impeded from profiteering (Cotula, Vermeulen, Leonard, & Keeley, 2009).

## So Some People and Organizations Go a Further Step With Their Allowances...

A uniform and controlled release must be created; otherwise we face a growing problem. A shortage of plans for other developments, people can do in the back. If the people do not eat or drink enough, they also do not need further plans and lose ambitions and their ideals and standards (World Food Programme [WFP], 2009).

The UN Food and Agriculture Organization (FAO) in early June 2010 in their semi-annual "Food Outlook" recognizes that the costs of food imports are rising, particularly in the poorest countries. This now threatens a famine in Africa, because the poorest countries pay more and more for imports. More particularly, the financial burden on food imports as calculated by the UN organization in the world this year amounts to about \$100 billion (81.8 billion euros) (FAO, 2011).

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In return, however, new debts are created to import the daily needs for the people. In particular, the 10 million people in the eastern Sahel in West Africa, according to the UN WFP, are facing a period of starvation. Already, more than 1 billion people suffer from hunger and malnutrition. Therefore, on a three-day "Conference on Nutrition", FAO, with representatives from the 192 member states in November 2009, set to a five-point plan against hunger (FAO, 2011).

But there are not only reasons of force majeure, such as crop failures and weather conditions, but also political miscalculations and bad decisions, as well as illegal price fixing for ever higher prices (McMichael, 2001).

But the increase in biofuels demand raises prices for cereals and rice. More and more people can afford less and less food. A food crisis is imminent, thus expanding the common social life more and more threatened.

In countries like Egypt, the meat prices have risen by 50% and threaten riot. And an end to price increases is not clear, as the FAO points out. But the fault lies not only in the interests of environmental conditions, but increasingly also in the wrong policy.

#### Price of Rice Doubled!

Other countries in Africa are worse affected by the rising prices. Thus, the price of a kilogram of rice in Mauritania, West Africa, doubled in the last three months. At the same time in Zimbabwe, the price of corn increased by 59% and in neighbouring Mozambique by 57%. In the Democratic Republic of Congo, a portion of fish a year ago costs 10 dollars (8.3 euros), today it costs 25 dollars (20.8 euros). For a 25-kilogram bag of rice, people must now pay 30 dollars - not for many financially viable. The policy is completely overwhelmed with the demand increase in the consumer society and the related allocation problems (FAO, 2011).

#### But What is the Truth...

Famous critics, such as Bjorn Lomborg, criticize these negative attitudes and campaigns.

In addition to individual traders, there are many other winners by rising commodity prices. Therefore, many welcome this development because the higher commodity prices have also reached to a certain extent of producers. A lot of people (Indians, Chinese, etc.) can afford more than ever before (Lomborg, 2002).

#### Many Questions Are Open Now...

Do we lose control over our food supply chain and is there no future for food for all?

Do always get less people something to eat in the future?

Or is that only a horror scene, because with fear it is easy to earn money...

True to the motto: "If people have fears, they can be controlled better".

**Main reasons for agricultural scarcity.** The main reasons for agricultural scarcity, according to Hiebl (2008) and Aalst, Adger, Arent, Barnett, Betts, Bilir, ..., and Yohe (2014), are as follows:

- (1) Micro-economic aspects:
- (a) Climate change and rethinking the ecological issues also leads to changes;
- (b) Storage situation for stackable products, which changes the supply situation (manipulation, storage costs, warehouse conversions and expansions, etc.);
  - (c) Politics, for example, export tax, import bans, etc.;
  - (d) NEW: Speculation;
  - (2) Macro-economic aspects:
  - (a) Developing countries and their increasing demand for meat, vegetable oils, etc.;
  - (b) Emerging markets and their increasing demand for milk, meat, etc..

# Theoretical Foundations and Actuality of the Topic - Literature Review

#### **Problem Statement**

The topics of raw materials, waste, and energy will be the top economic issues of the future, or influence and affect all other subjects (human resources, culture, society, etc.); all combined with technology, IT, and tech communication (see Figure 1).

The shortage of raw materials is one of the central issues from the future perspective and this fact has already influenced the relationship between buyer, producer, and supplier.



Figure 1. Future business triangle of today and tomorrow. Source: by the author.

## Survey of the Current Negotiation Situation Between Buyers and Suppliers

The current shortage of agricultural commodities in the market has begun changing the negotiations and activities of producers, middlemen, wholesalers, retailers, stationary and virtual sales units. Trade will nonetheless continue to operate according to conditions set out by corporations. However, we are currently faced with new scenarios and it will take time to get accustomed and be trained and ready to meet these new challenges (see Figure 2).

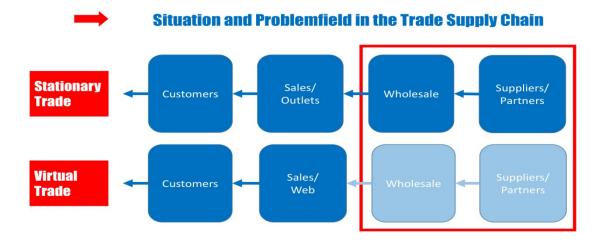


Figure 2. Situation poster about the problems between wholesale and suppliers. Source: by the author.

# **Theoretical Framework and Model Development**

# **Purpose of Study**

The interaction between purchasers, suppliers, and producers with respect to the procurement of raw materials, goods, and products is examined specifically in terms of their economic and psychological satisfaction. Is it possible to satisfy all parties not only in an economical way, but also in their mental satisfaction?

The question of this paper is as follows:

How to run the negotiations between purchasers, suppliers, and producers, so that both parties are really satisfied (economically and mentally)?

The answer is the following:

The negotiations must be transparent in relation to prices, quantities, etc., because in the way of approaching the interests, the satisfaction will increase consequently.

There must be created a new relationship, to create common solutions.

The survey of the current negotiation situation between buyers and suppliers (Volker, 2006; 2013) is as follows:

- (1) The demands of commercial enterprises towards their supply chains are that prices must fall, and the amounts have to increase in the following years;
- (2) The reality in trade is that the production quantities are stagnating and grow only in the range of widths. The prices are rising due to direct and indirect depletion rates;
  - (3) A decade's working habits come to falter, etc.;
  - (4) Stress among all participants in the negotiations and the annual meetings is the result, etc.;
- (5) The current culture of dialogue and objective needs to change a common objective must be the result, in order to ensure the supply to the complete satisfaction of all concerned;
- (6) Instruments or tools for a future-oriented negotiation are missing or be only in a developmental stage, and these data are mostly from historical or contemporary issues, but not future-orientated.

## **Novelty**

The author's research question deals with the topic (see Figure 3):

Analysis of direct and indirect factors influencing the interaction between procurement and suppliers/partners in the food trade and wholesale.

It is requested on the basis of a structural equation model, such as the negotiations between purchasers and sellers in the optimal case expire have.

How to create an optimal negotiation situation and a common result.

For this, the Harvard concept is used to query the derived ideal negotiation situation.

Respectively, the author of this study focuses on the aspect:

The interaction between procurers and suppliers is analyzed specifically in terms of their economic and psychological satisfaction/variables. Is it possible to satisfy all parties not only in an economical way, but to also provide their "satisfaction" equal?

In previous negotiations, there is usually a loser and sometimes a winner...

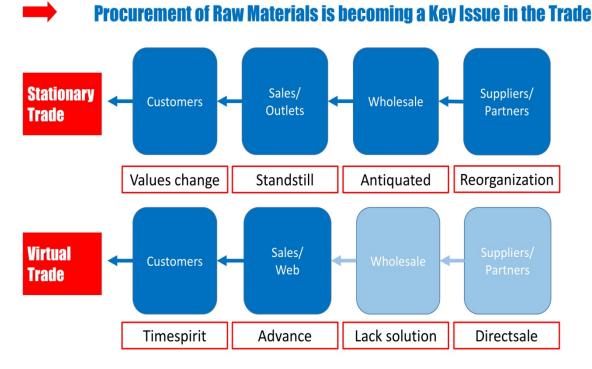


Figure 3. Fact poster of the situation in procurement. Source: by the author.

## **Hypotheses and Propositions**

The main aim of this paper is to create a model that investigates empirically the economic and especially the psychosocial factors of success in the negotiation process between buyers (procurers) and suppliers (producers) in the food trade and in wholesale.

The new model will specifically focus on the economic and mental satisfaction in the negotiating and decision-making processes in an effort to secure sustainable and efficient food supply chains.

It will also examine how greater transparency at annual meetings and negotiations in meetings throughout the year will positively impact on the level of individual satisfaction felt at the end of negotiations.

**Hypotheses.** This study proposes the following hypotheses:

HB1: The structure of the negotiation process has an impact on the outcome of the negotiations.

HB2: The more transparent the negotiating process, the more satisfactory the negotiation outcome from the perspective of both/all negotiators.

# **Propositions.** The question is therefore:

How should negotiations between procurers and suppliers be guided/conducted so that both parties are mutually satisfied?

Concerning this, the answer is the following:

The negotiations regarding prices, quantities, etc. must be transparent, because the satisfaction of all parties involved in the negotiation process is more likely to be achieved, if due consideration is given to each negotiator's interests, demands, and expectations.

# **Research Design and Model Testing**

# Research Design

**Model description.** The descriptions of the model as shown in Figure 4 are as follows:

- (1) AV1 Economic satisfaction:
- (a) Price = P;
- (b) Amount = M;
- (c) Quality of goods = Q.
- (2) AV2 Mental satisfaction:
- (a) Anxiety and tension during negotiations mental well-being = N;
- (b) Opinion and image of the negotiating partner or the company, he or she represents = I.
- (3) UV 1 Harvard negotiating theory Negotiating criteria;
- (4) UV 2 Level of transparency:
- (a) Quantity of annual output = MJ;
- (b) Costing and pricing of goods = VPN;
- (c) Ecological situation Expected product volumes depending on recent ecological developments and the actual situation on the ground..., i.e., destruction and disruptions caused by natural disasters, e.g., earthquakes, floods, how far is the economic reconstruction = QM;
- (d) Raw material situation, e.g., palm oil production, since it is well known that supplies are dwindling yet prices are rising = RS.

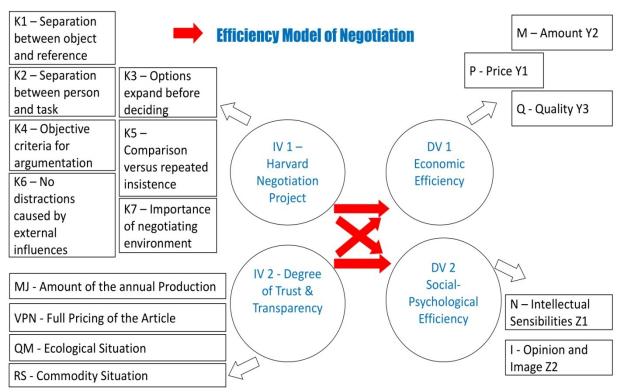


Figure 4. Research design - Efficiency model of negotiation. Source: by the author.

## **Model Testing (see Figure 5)**

This paper investigates by interviews in field experiment - cause-effect relationship - game theory with empirical relining, for a discussion about the satisfaction degrees, depending on the transparency in the communication skills in discussions between buyer side and supplier side.

This paper uses questionnaire to discuss the satisfaction precisely, depending on the transparency in the communication skills, in discussions between buyer side and suppliers/partners:

- (1) Investigation by interviews in field experiment cause-effect relationship game theory with empirical relining: survey of round about 40 suppliers and 40 acquirers;
- (2) Which negotiation with respect to the mutual transparency must be applied in the future to optimize the negotiation situation between "donors and takers" due to the increasingly difficult procurement?
- (3) What form of negotiation needs to be created, in order to improve the situation and to achieve the full satisfaction degree in economic and mental respects?
- (4) What changed the level of disclosure and transparency of all proceedings variables and an open discussion (full transparency) the design of negotiations with respect to economic satisfaction as price, quantity, quality or the mental psychic satisfaction regarding fears, nervousness, satisfaction level, the impact, and image of the acquirer regarding trade outwards?

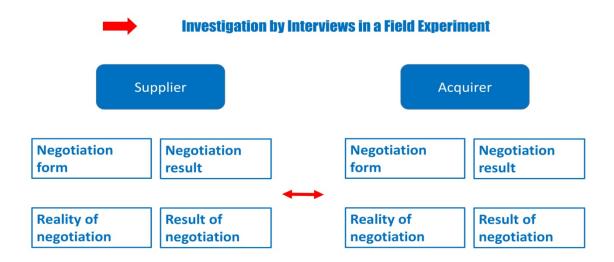


Figure 5. The investigation model for the interviews in the field experiment. Source: by the author.

# **Research Results and Interpretation**

# Aim of Research

The aim of this research is to look at the reality, draw conclusions for all parties to improve the cooperation.

If we could resolve the "fronts" between "procurement" and "donors" for cooperation in the form of a transparency, it would help the entire cycle.

## **Research Object**

The research object of this paper is the examination of annual and negotiation talks in trade between procurement and suppliers.

#### Research Subject

How will complete transparency, in the negotiations with regard to their economic and mental satisfaction, appear for all negotiating parties?

#### **Content Scientific Studies**

Firstly: More in-depth research on the future structures, systems, and procedures of (wholesale) trading houses. The creation of a future "toolbox" and the analysis of the direct and indirect factors influencing the interaction between procurers and distribution in the (wholesale) trading.

Secondly: Evaluation of the procurement market and sources of supply with the new approach of direct and indirect influences on the transparency and the shortage rate. Procurement as today will not be possible for tomorrow. A shortage and an associated reduction of purchasing volumes had already entered. In what way can total transparency and resulting total satisfaction counter controlling forces?

#### **Conclusions and Recommendations**

#### Conclusions

The procurement market needs more knowledge and tools, in the procurement and allocation issues, for a common and transparent review and also analysis tools with regard to the future procurement situation.

The full transparency of prices, quantities, etc. must be given, as thus also the approach to the interests happens and thus consequently increases the economic and mental satisfaction of all parties.

# **Findings and Results**

This means an extension of the Harvard concept with the level of transparency and, consequently, in economic and mental satisfaction for all negotiating parties.

How is changing an open discussion (full transparency) the design of negotiations with respect to economic satisfaction, such as price, quantity, quality, or the mental psychic satisfaction regarding fears, nervousness, satisfaction degree, the impact, and image of the acquirer?

#### **Main Conclusions**

If we could resolve the "fronts" between purchasers, suppliers, and producers for cooperation in the form of a transparency, this would help the entire cycle.

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