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**ANALYSIS OF CUSTOMERS SATISFACTION OF AGRICULTURAL  
MACHINERIES FROM THE LEVEL OF PRODUCERS  
AND TRADERS IN GERMANY**

*ANALIZA SATYSFAKCJI UŻYTKOWNIKÓW MASZYN ROLNICZYCH  
Z PUNKTU WIDZENIA PRODUCENTÓW I HANDLOWCÓW W NIEMCZECH*

**Key words: agriculture machineries, customers satisfaction, Germany**

*Słowa kluczowe: maszyny rolnicze, satysfakcja użytkowników, Niemcy*

**Abstract.** The German agricultural machinery market is stagnating. This is the reason why it is difficult for German agricultural machinery manufacturers to increase their sales. In spite of this critical situation, the German agricultural machinery enterprises found a solution to the outlined problem: The improvement of the customer care which can largely contribute to customer contentment. The different dimensions of customer contentment are suggested by exploratory factor analysis in the SPSS-program and by additional considerations related to affinity. These dimensions are confirmed by means of factor analysis and the influence of these dimensions on the total contentment is quantified by applying structure equation models. By means of structure equation analysis, it becomes clear that several dimensions contribute to the total contentment of the customers. However, not all of these dimensions determine the origin of customer contentment to the same extent. The manufacturer's goal is to increase the total contentment of the customers. In order to reach this goal, these dimensions need to be focused on. In my dissertation I pay attention to these questions more deeply.

### **Introduction**

The term 'marketing' should not be exclusively interpreted as selling in the traditional sense, because, according to the new interpretation, the expression refers to the satisfaction of the customer's desires as well. No wonder that many people think that marketing is only about selling and advertising, since we are bombarded every day by TV spots, advertisements in newspapers and bulk email advertising.

The competition that is characteristic to the European car trade nowadays is also observable in agricultural machinery trade. Only those traders can succeed who work professionally in every business process and can tie the customers to themselves by convincing achievements. The quality of the cooperation between manufacturers and traders is of primary importance.

The aim of paper was the determination, as an empirical elevation of the customer satisfaction in the agricultural machinery branch looks. How satisfied are the Hungarian farmers with products from Germany? The data became with the aid of the questionnaires of the farmers, bought the agricultural machineries refurbished with the help from SPPS.

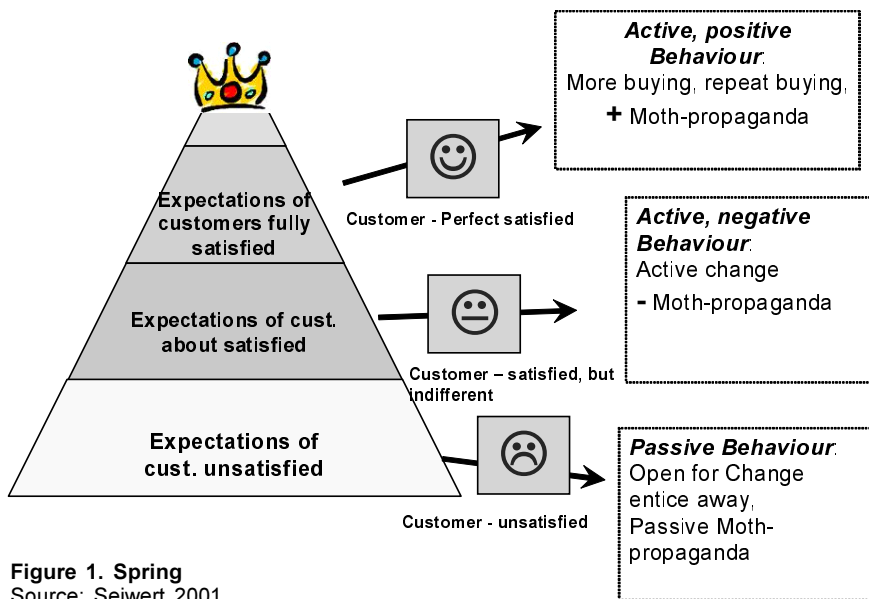
### **Customer satisfaction**

Previously, marketing did not use to be as significant a task as it is today, because a large number of sales assistants used to be in daily contact with providers and buyers. Since then, however, many enterprises have become large-scale enterprises and we can talk about national and international markets. Many providers do not have any immediate contact anymore with the buyer. Therefore, in order to find out what the buyers would like, they have to use market analysis. Today a lot of money is invested in market analysis in order to find out as much as possible about consumer behaviour.

Enterprises nowadays are in extremely hard competition and this can become only harder. Consequently, enterprises producing certain products, besides being sales-oriented, should act in a customer- and market-oriented way if they want to keep their present markets. More than 40 years ago a well-known management author, Peter Drucker wrote that winning 'customers' was the primary task of enterprises. Nowadays, prospective buyers assign a value to the prices of different

brands and products. They ask themselves the question: -which product is suitable for me? Buyers form their own ideas about value expectations and act accordingly. After the purchase they draw a comparison between their value expectations prior to the purchase and the actual value they received after using the product. These considerations determine their contentment or dissatisfaction, and considerably influence their repurchase behaviour.

Customer contentment determines the quality of a business's relationship to its customers and the assessment of its services. Customer contentment contributes to the success of an enterprise and should be treated as an important business objective in order to preserve the competitiveness of the enterprise [Reichardt 2004]. Satisfied customers show the following behaviour [Seiwert 2001]:



**Figure 1. Spring**  
Source: Seiwert 2001.

- In case of very satisfied customers, the probability of a repeat order is considerably higher than in case of only satisfied customers, whereas a dissatisfied customer changes the provider as soon as he meets a better alternative. On the other hand, satisfied customers show a stronger attachment to the enterprise and, as regular customers, they are less price-sensitive.
- Satisfied customers become good advertising media for the enterprise (word-of-mouth recommendation), which leads to lower advertising costs (Fig. 1).

By the measurement of customer satisfaction the following questions can be answered [Reichardt 2004]:

- how satisfied is the customer on the whole and how satisfied is he/she with the achievement components?
- what does the contentment of the customer depend on and where can the starting points for the increase of the customer contentment be recognized?

The customer's feeling of satisfaction arises from his/her comparison of the perceived value of profit (as a result of the purchase) and the expected value of profit (prior to the purchase). This contributes to:

- customer dissatisfaction,
- customer satisfaction,
- customer enthusiasm [Simon, Homburg 1997].

Customer satisfaction has an objective and a subjective part and the difference can be explained by the term "now-achievement": While the objective achievement (that is the actual power) is identical for all customers, the subjective achievement varies due to different perception effects. Customer contentment results from subjective matching: The customer compares his personal expectations with the perceived quality of the products or services. If his expectations are met by

the achievement, namely the „now-achievement” corresponds to the „target-achievement”, the customer is satisfied. If his/her expectations are surpassed, the customer is enthusiastic. On the other hand, however, if his/her expectations are not met, namely the „now-achievement” does not reach the „target-achievement”, the customer is disappointed [Tse, Wilton 1988].

### The results of the interviews

The data evaluation was carried out in a partnership with a German company (hereinafter: Company „A”) which is also active in Hungary. Customers, who had bought agricultural machinery between 2003 and 2006, were contacted by mail and were asked to fill in a questionnaire. The return rate in 2006 was mediocre, 34% of the interviewees returned the questionnaires. The moving letters were sufficient to get representative results, and the 248 customers supported the research well. No further steps were taken to encourage the customers to return the filled-in questionnaires. As compared with the 2003 research, the following changes occurred: In 2003, a research institute was charged with the questioning and every participant who had failed to return the filled-in questionnaires by mail was asked by telephone to do this. As a result, the return rate was 76%.

The agricultural machinery manufacturer measures customer satisfaction every year. Every time the questionnaires are improved, refined, therefore the comparison is drawn only on the basis of the identical questions. I used the software SPSS for the data input and for the data reappraisal.

The measurements were carried out in order to find the objective rate of customer contentment, in my case in Hungary for the period between 2006 and 2003. The questionnaire consisted of the following fields:

- for Hungarian manufacturers: planning/consultation, delivery, machine achievement, spare part supply, after sales service and total power,
- for traders/resellers: offer-/purchase phase, customer service/work place power, spare parts and total power.

The displays some of the evaluation results.

The use of market analysis speaks for itself as figure 2 and 3 show. We can see that Company 'A' not only maintained the results of the previous questionnaire, but they managed to outdo them. The number of satisfied customers who would recommend the company to others has increased by around 2%.

In the case of In reaching so good results, it is decisive how the enterprise is able to keep and even increase a certain level of performance.

As for financing costs, the results were weaker, since the offers of the banks meant very severe obstacles this year. All other results in 2006 were better than the results related to the financial costs. For

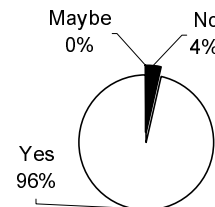


Figure 2. Recommendation of Company „A” in 2006  
Source: own study.

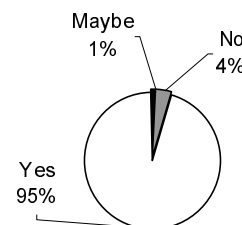


Figure 3. Recommendation of Company „A” in 2003  
Source: own study.

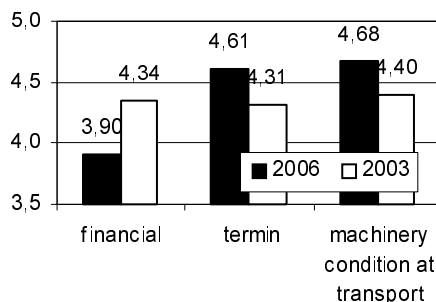


Figure 4. How satisfied were you with...?  
1 – spring  
Source: own study.

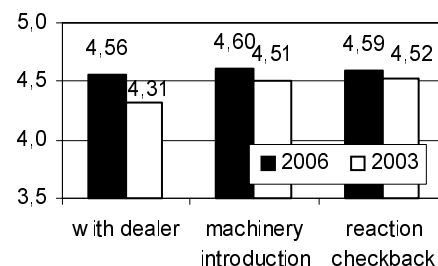
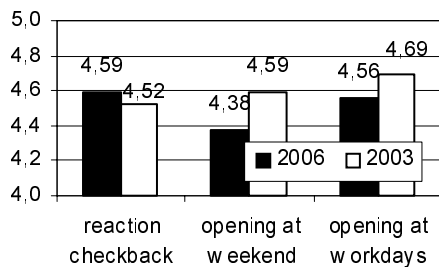
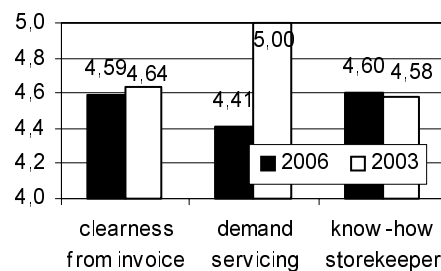


Figure 5. How satisfied were you with...?  
1 – spring  
Source: own study.



**Figure 6. How satisfied were you with...?**  
1- spring  
Source: own study.



**Figure 7. How satisfied were you with...?**  
1- spring  
Source: own study.

a manufacturer it is very important that the trader represents the products faithfully (Figs. 4-7).

The individual question immediately explain certain changes in the results. Changes in opening time also contributed to these changes. Cultivating contact with current end users is of special importance, since in satisfied markets competitors can win new end users mainly by enticing them away.

First buyers are not to be neglected [Dichtl, Schneider 1994]. Winning new end users, however, requires clearly more expenditure than cultivating contact with current end users. The cultivation of contact with current end users is therefore a common challenge for agricultural machinery manufacturers as well as for the marketing divisions of the respective trader companies. This contact-oriented approach should mean lifelong care, especially when it comes to the selling of good quality machines whose life-span is long and the costs arising from amortization are low. The customer will remain the trader's partner only if appropriate contact cultivation exists. Despite the fact that the number of sold machines is relatively low, the traders can profit a lot from this partnership, since the accessories business has great profit potential.

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### Streszczenie

Pojęcie „marketing” nie powinno być interpretowane wyłącznie jako sprzedaż w tradycyjnym znaczeniu, ponieważ zgodnie z jego nową interpretacją, pojęcie odnosi się do zadowolenia, a także pragnień klienta. Wiele ludzi myśli, że marketing mówi jedynie o sprzedaży i reklamie, ponieważ jesteśmy bombardowani codziennie przez spoty telewizyjne, reklamy w gazetach i internecie. Konkurencyjność, charakterystyczną dla handlu samochodowego w Europie, można zaobserwować także w handlu maszyn rolniczych. Tylko ci handlowcy mogą odnieść sukces, którzy pracują profesjonalnie na każdym etapie procesu sprzedaży produktu. Niemiecki rynek maszyn rolniczych znajduje się obecnie w stagnacji, dlatego jest to przyczyną spadku sprzedaży maszyn rolniczych. Pomimo tej krytycznej sytuacji, niemieckie przedsiębiorstwa znalazły rozwiązanie dla przedstawionego problemu: poprawiają obsługę klienta, która w dużym stopniu może się przyczynić do zwiększenia sprzedaży.

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