How the customer satisfaction in function of the Kano Model is used to have a better competitive advantage within the car industry?

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Abstract:
This article has as objective, to show and analyzing how the customer satisfaction in function of the Kano Model is used to take a competitive advantage within the car industry. Some results show that the impact of the customer satisfaction surveys account for 8 to 10% of the turnover of the major European car companies. In fact, in the 5 past years, the profitability of the leaders in customer satisfaction have surpassed the laggards. Leaders had a cumulative total return of + 22.5%, the SP 500 experienced a decline of -1.3% during the same period, latecomers lost - 46.3%. Therefore, these figures demonstrate how it’s important to set up a good strategic customer listening in order to take advantage on competition.

Keywords: Kano model, car industry, customer satisfaction, competitive advantage

Introduction
Customer listening is crucial to know the needs of the customer and to delimit its priorities and constraints. On the basis of this knowledge, the vendor offers an offer adapted to the expectations that satisfies customers (Saxe & Weitz. 1982) and creates a relationship based on dialogue and understanding.
If the customer perceives a seller listening to what he is saying and trying to meet his needs, he feels that the seller is interested in him and his confidant (Swan and Oliver. 1991) justifying a Positive relationship between the seller (Tracy. 1995, Ramsey & Sohi. 1997). Thus, sellers contribute strongly to establishing and building trust with customers (Akrout 2010). Listening is the basis for successful negotiation-selling (Moore, Eckrich & Carlson. 1986). It ensures the success of a sale (Saxe & Weitz, 1982, Castleberry & Shepherd. 1993); Its absence is the main explanation for the failure of a sale (Ingram, Schwepker & Hutson. 1992).
Today, a lot of scientific articles and papers say that all the strategies of the company are oriented towards the customers who use the services and consume the products provided by it (Gino Gramaccia, Dominique Beau & Sylvain Daubel. 1992), (Pierre-Jean Benghozi 1998).

Indeed, from the conception of the project and the design of commercial offers, the company's manager must think about the customers and their satisfaction, as well as the future development of its industrial and commercial strategies. Moreover, the customer must be listened to know his expectations and requirements. Its needs are changing according to behavior and markets. The company must then be oriented towards listening to the customer and taking account of its requirements of the future. These strategic elements form a whole: the company needs its customers to keep its durability and efficiency and customers need satisfaction (quality, price and time). If customers are not satisfied and loyal they are looking for other competing suppliers of the former. This means that the company must put in place a strategic vision to meet the expectations of its customers and tries to create more added value through its response to the requirements of its customers. In most companies, at least two types of voice must be taken into account: the voice of managers (the development orientations of a company are decided or strongly influenced by the will and personality of the managers), and that of the clients (client have an impact on the fate, existence and development of the company).

In the early 1980s, Noriaki Kano developed a conceptual model of representation of customer satisfaction (Kano et al. 1984). The Kano model is based on the fact that there is no real symmetry between satisfaction and customer dissatisfaction. Some factors or components of a product/service can strongly influence customer dissatisfaction when they are absent without generating satisfaction when they are present and vice versa. Indeed, the basic factors or "Must Have" are attributes that the customer expects. Customers will be much less satisfied if the basic factor is not present, but will be totally indifferent when it is present. Performance factors or "Key Drivers" are attributes that make customers more satisfied when they are present, and less satisfied when they are not. They generate symmetrically from customer satisfaction or dissatisfaction and are often points of competitive differentiation. The competitive differentiation, more known as the competitive advantage is the offer proposed by a company to differentiate itself from the others by offering a better good/services in terms of value (Michael E.P 1998).

Nowadays, who can do without a car? Whether it's to work, to go on vacation ... To have a car is a quasi-necessity if only to go to his place of work. The liberalization of our market economies has considerably increased the competitive intensity of many sectors. The European car industry cannot escape to this phenomenon, which is already highly competitive in a European market that is tending to stagnate. It is now threatened by the rise of competitors formerly much less present (Daewoo, Hyundai, Kia, ...).

This new environment must force companies to maintain its strategy. In fact, a lot of researchers tried to improve the efficiency of loyalty and customer loyalty (Fornell 1992, Anderson and Sullivan 1993, Bolton. 1998). Thus, face to the increasing number of offers, we believe that the objective of industrial companies is no longer to meet demand, but to meet the different demands coming from consumers of different requirements.
What types of customers to consider? Indeed, each customer is important for each company or organization. In order to increase revenues and maximize profits, companies need to listen to all categories of customers through different listening methods. Careful choice of key customers, listening to their current and future needs, pursuing strategic and efficient efforts in terms of management and customer relations, choice of main listening methods. Therefore, this paper has as objective to study and analyze how the customer satisfaction in function of the Kano Model is used to have a better competitive advantage within the car industry?

We will divide the work as follow: the second part is a straightforward description of how we generated the empirical material in order to know the advantages and disadvantages of the Kano model. The third part will be an explanation of how we explained the link between customer satisfaction and competitive advantage. Then, the analysis in the fourth part talk about the results we get after the empirical material to see the impact of customer satisfaction within the car industry. To sum up, the last part will bring conclusions to this work.

1. Method

In order to improve and better understand the advantages and limitations of the Kano model, we focused on a quantitative survey and used as a base and some interviews and scientific articles to support our work.

Thanks to this support, we wanted to demonstrate that there is some links between a good customer satisfaction and competitive advantage. Then, we decided to look for information about the Kano model and his impact on customer satisfaction and we found out that there are some weaknesses on this model. We’ve so tried to solved them and improve the Kano model in order to adapt itself within the car industry.

In parallel to this survey, we asked 200 people and decided to make a quantitative research more focus on the satisfaction survey itself. This was made to see the point of view of different kind of people in order to improve the Kano Model.

Therefore, this customer survey facilitated our understanding of the relationship between customer satisfaction scores (Kano model) and the importance of the stated requirements. To get the answers of this survey, we were interested in students, family, friends and professionals. We used social networks such as: Facebook, LinkedIn, Viadeo, Salezeo, Google and our school network (Esc Troyes). In order to collect all the data, we used Google software and the results of this survey either for the theory and analysis.

2. Empirical material

We trying to demonstrate a link between a good customer satisfaction and competitive advantage. To make it well, we will compare two documents. The first one is the result of a study conducted by (D3 Intelligence & AAA-Data. 2015) This study was carried out in 2015 by retail customers in Europe on 115,010 purchases of new vehicles from the top 30 automotive brands.

You can see in appendix 3 which brands have the most loyal customers. We also note that two brands are distinguished from the others. Toyota with 68.2% of loyalty and 69.6% for Volkswagen group.

In the following diagram (Appendix 4), the study focuses on the world market share of the automotive industry ranked from the largest seller to the lowest (Stephan Bratzel 2015).
The Toyota Group has a market share of more than 10% and the Volkswagen Group is second with 9.96%. These two companies have both increased their market share by more than 2% for VW Group and more than 4% for Toyota.

Companies in the automotive industry have widely focused their marketing strategy on the customer. Like Philippe Clogenson, director of customer relations at Renault, says: "The customer is now an integral part of the company's strategy and contribute to improve the attractiveness of products". (Philippe Clogenson 2008).

The scandal of the German brand Volkswagen from 2009 to 2015, has used various techniques to reduce fraudulently the polluting emissions. Therefore, they lost 23.9% of market share compared to 25.3% in February 2015.

This news has strongly affected the relationship established between the brand and its customers all over the world. Indeed, after a study realized by web users from different online French car buying sites (lacentrale.fr, leboncoin.fr, promoneuve.fr) which are very appreciated, we can notice that it’s an erosion of 10% that affected Volkswagen since the scandal. And this is not a global trend, but a decline of Volkswagen as the same figures are in front of other brands: -10% against Research from Renault, Audi, Nissan and Ford and even -12% compared to Peugeot / Citroën.

Shortly after this scandal and since the brand has been afraid that this customer dissatisfaction will keep impact its market share, the company has completely changed its communication methods and its vision of the brand: Interview with (Thierry Sybord 2016):

- Removal of the slogan "Volkswagen Das Auto" to leave only "Volkswagen" see (Appendix 1 & 2)
- Advertising campaigns which are more focused on human and more focused on product (Appendix 1 & 2).
- Communicate on the actual consumption and emissions of their cars

As Paul Valentin Ngobo says (Paul-Valentin Ngobo 2000): "According to the marketing literature, customer satisfaction allows a company to increase its sales or its market share."

The Kano model is an interesting and useful model because it is durable in time and can be perfectly adapted to all types of products, (Wikilean 2007).

Moreover, the book (Kano et al. 1984), by 1980s, Noriaki Kano says that its model is a real asset to quantify the possible success of an innovation on a product according to the customer's opinion.

"In other words, there is a level of performance to be achieved (in terms of satisfaction) relative to competitors so that satisfaction yields appreciable results in terms of market share." (Paul-Valentin Ngobo 2000).

In order to obtain an opinion on the effectiveness and usefulness of the Kano satisfactions questionnaires, we carried out a study:

Our questionnaire (200 responses, with the aim of knowing the advantages and disadvantages of customer satisfaction surveys, Appendix 5) we learned that:

- More than 50% of people are willing to recommend this type of questionnaire to their loved ones
- 80% of the population studied is confronted less than three times a month with this type of satisfaction questionnaire
- 90% have already been confronted with a satisfaction questionnaire
- Concerning the advantages of the Kano questionnaire: 62% think that these questionnaires allow to know their weaknesses in order to improve them, 55% think that they give a real and useful opinion on the population studied, and 50% think that it allows to have a notice of the customer after the sale of the product.
- 70% think it is more advisable to make a questionnaire before the sale of the product rather than after.
- 50% think it is possible to "measure and/or quantify customer satisfaction precisely
- 40% think that questions of the Kano type (based on the feeling of the consumer are the most effective, 30% think that it is necessary to mix between answers on the sentiment as well as open questions but also answers or one answers by yes or not.
- 90% of the population studied did not know the Kano Model.

We can see in what the Kano model looks like. For instance, we can notice that the table is made for imposed questions but also for imposed responses. That is to say that the client will not be able to explain a "dislike" response. Therefore, the company will know that the customer will not like this "option" but this one will not know why. We asked in our survey "what are the limits of this type of questionnaire":
- 65% of the population studied said "not taken seriously by the individual questions
- 55% found these questionnaires too long
- 50% think that they cannot really give their opinion (because of imposed answers there is no possibility to writing observations).

One of the Kano model’s limitations is that it does not take sufficient account of the degree of importance attached to certain quality elements. As a consequence, Yang C.C propose to use the Kano model accompanied by the I-S (importance-satisfaction), another model to analyse the customer satisfaction (Yang C.C 2005).
This would allow companies to "gather even more valuable information about quality decisions". Moreover, Kano model takes into account a projection of "future or expected satisfaction" and not "satisfaction of experience or experience." It is closer to what we call analyses of "declared importance” (Christian Barbaray 2015). This tool "measures well the" a priori " and not the" a posteriori ". It is then possible to ensure that the Kano model is improved and adapted to better meet customer’s satisfaction in the automotive industry. (Burchill, G., Shen, D., Walls, T. and Walden, D. 1994).

3. Analysis

The full research shows the link between customer satisfaction and competitive advantage. The first result that appears after researches ‘analyse, is the real impact of customer satisfaction on the competitive advantage, especially in the car industry (Philippe Clogenson 2008). To create a good customer satisfaction, you need to have the point of view of your customer to better understanding what they want and what they need.
We can see it in our survey with the following question: According to you, is it more judicious to make a survey:

- Blue: Before the launch of a product/service
- Red: After the launch of product/service

Making a survey before the product launch is the best way to know it. That is why more than 63% of asked people think it is. Therefore, you can have a good idea about the desires and feelings of the consumer on your product/services. As a consequence, in function of their point of view, car company will be able to satisfy them, adapt their innovation and being more competitive on the market. The real challenge for the car company is to find out the best way to make this kind of questionnaire (not too heavy or difficult to analyse).

How often are you confronted with this kind of questionnaire?

- Blue: Less than three times a month
- Red: Between 3 and 10 times a month
- Yellow: More than 10 times per month

It can be a good idea for car dealers to create a “funny” survey or something different from the other car dealership survey. The objective is to create an interest for the customer to answer the survey, because more than 57% (figure below) of asked people would be ready to share this survey to their friend, family if it was taken seriously by the asked people and not too boring to do it.
Would you recommend your family, colleagues and friends to answer these types of surveys?

Furthermore, set up a system with customer to make them envy to answer seriously the survey by improving some question. On the figure below, we asked what are the most disadvantages of a survey like Kano, 64% of them said that this kind of survey is not taken seriously. To incite them, car dealers can propose something to give them interest. In fact, the best way is to ask question based on the client’s emotions, on a special aspect of your product and also give them the ability of writing what they think. With the KANO model, you can only know what people do not like and that’s it. That is why 46.6% of them said that with the questionnaire like KANO, you cannot give your opinion, but only reply to the imposed answer. It could be effective if car dealers say at the end of the questionnaire link to this question: give your feedback/comment

What are the disadvantages of these satisfaction questionnaires?

52.8% of them think it is too long and sometimes incomprehensible (16.8%) and 44.1% of them think that the answers are imposed.
The main problem of Kano model is to analyse the answers. It is complicated with the letter and the special meaning for each letter. You need special people to handle the questionnaire and analyse it and it’s very costly for those who pay for it.
According to you, what are the advantages of the customer satisfaction questionnaire?

The two first are “know his weaknesses in order to improve it” with 63.6% (before selling the product) and the second with 53.7% is to have a real and useful opinion on the population studied. Thus, using a questionnaire like Kano is beneficial only if the questionnaire is done correctly.

Thanks to our survey and research, we can propose an improvement of the Kano model which can be integrate to the car industry in order to have a better customer satisfaction and competitive advantage.

To prove it and know the customer feeling, we asked:

According to you, what are the most effective questionnaire in order to know the feeling of a customer before the launch of a product/service?

Blue: Multiple choice questionnaire on emotions felt by clients (like, expect, neutral, live with, dislike)
Red: Questionnaire with two possible choices: yes or no
Yellow: Questionnaire with redaction of his/her answer
Green: The three together (blue+red+yellow)
Purple: Others

- 40.1% of them think that a survey like KANO is the best.
- 28% of them think that the three categories together are the best.
So far, we know that it is more appropriate to conduct a satisfaction survey before the product launch, while at the same time, ensuring that it is of interest to the consumer and involving him so that he can give his/her opinion on a given issue. Indeed if he finds an interest, he will do this study seriously and will be willing to share it with his entourage. The Kano questionnaire, judiciously explained as previously, can therefore be a useful and effective tool to improve customer satisfaction and as a consequence, the competitive advantage in the automotive industry. Nevertheless, we have seen in the theory that the Kano model had some limitations. We can propose a questionnaire with a majority of question like Kano, and some precise question where the customer can put his/her own opinion, give advice, give idea, … Moreover, question where you can just answer yes or no. To improve the Kano model in the car industry, we propose some modification.

We used the same form as Kano (functional and dysfunctional question) but in order to be more precise, we added other question just after the first question of Kano. These new questions are based on the answers of the customer. If the customer’s answer is: “I dislike It that way “and “I am neutral” for example, we know that after analysis, the product/service or innovation is reverse but we don’t have more details about the customer’s point of view like why he doesn’t like the product or what is the best way to improve it?

That’s why decided to asked more precisely the client.

<table>
<thead>
<tr>
<th>In case of: Functional question “dislike”:</th>
<th>- ° YES °NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Does our product/service is not innovative enough?</td>
<td>- ° YES °NO</td>
</tr>
<tr>
<td>- Is it useless?</td>
<td>- °YES °NO</td>
</tr>
<tr>
<td>- Explain your opinion</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In case of: Dysfunctional question “I like it that way “:</th>
<th>- °YES °NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Is it too much?</td>
<td>- °YES °NO</td>
</tr>
<tr>
<td>- Do we have to forget the idea?</td>
<td>- FORGET DO NOT</td>
</tr>
<tr>
<td>- Explain why you prefer like that?</td>
<td>-</td>
</tr>
</tbody>
</table>
Therefore, this will help us to know what the customer dislike to improve our weaknesses. Then we mix in the new model question like Kano (I like it that way, it must be that way…), question where your answer can be yes/no and question where you can give your opinion. This kind of questionnaire is the most useful kind of survey (Refer to: “According to you, what are the most effective questionnaire in order to know the feeling of a customer before the launch of a product/service?”).

According to the results obtained (Must Be, One Dimensional, Attractive, Indifferent, Reverse, Questionable), it would be advantageous to have a complementary opinion in order to have better information concerning the client. It will also show that his/her opinion impacts the decision of the company and will give them the feeling of belonging toward this company.

<table>
<thead>
<tr>
<th>In case of MUST BE:</th>
<th></th>
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<tbody>
<tr>
<td>1- How can we add value to our product/service?</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>In case of One- Dimensional:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1- How the product can be more efficient?</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>In case of Attractive:</th>
<th>-YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Will you buy this new product/service?</td>
<td>-NO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In case of Indifferent:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1- Is this product need more innovation? On Which aspects?</td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>In case of Reverse:</th>
<th>- YES (if yes, why?):</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Is it too much?</td>
<td>- NO</td>
</tr>
</tbody>
</table>

(We do not put the box "questionable" because it means that our question was bad or badly formulated, so no additional answers are useful).

To encourage customers to reply again to this questionnaire, we propose to put in place lottery or loyalty card system, with a real interest for the consumer like good buy in the brand shop, lottery with jackpots; for each two-questionnaire answered. They would do it with great interest and we already proved that when it’s the case, they reply it honestly and do it in a good way. (Refer to the analysis “what are the disadvantage of the questionnaire like Kano?”; 64% of them do not taking it seriously).
4. Conclusion

In the automotive industry, the possibilities for innovation are many and varied. A good image and a good satisfaction on new products are therefore necessary in this sector of activity. Customer satisfaction analysed according to the Kano model allows to divide the consumer's point of view regarding an "innovation" into six categories: Must Be, One Dimensional, Attractive, Indifferent, Reverse, Questionable. This model will allow the car dealers to have a feedback on the customer's opinion about a question asked in order to improve and understand the problems encountered, or to realize the potential innovation success settled. Knowing what the customer feels if the option in the car is present or not before the launch of the product allows to know in advance if the option presents an advantage or not. This work is at the beginning of researches about how the customer satisfaction in function of Kano is used to have a better competitive advantage in the car industry.

A customer-oriented service strategy is the only sustainable solution in the long term. This scientific article shows that in order to get a real competitive advantage, it must be perfectly aligned with their expectations.

Companies: a necessary optimization of the quality of services ... A customer service of the best possible quality: this is one of the priorities for all companies. In a complex economic context, contact centers are becoming increasingly important: they need powerful tools and working technologies to provide the best possible level of service. If there is an obvious correlation between well-equipped agents and satisfied customers, is this sufficient to be efficient and maintain productivity? Customers, as we know, are becoming increasingly demanding, while their interactions are becoming increasingly complex, with the evolution of traditional contact centers to multichannel services. Dealers must be able to adapt to the mode of interaction desired by the customer, but not only. Because it is in detail that the difference is played out: knowing precisely what customers want, companies will be able to make them a perfectly adequate proposal and to differentiate themselves durably from their competition which will constitute a competitive advantage in the target market.

A limitation of current research is that the validity of the changes made to the Kano model has not been validated professionally by different customers and car dealers. Knowing that the Kano model was already a reference, we did not want to change it but adapt it best to the automotive industry.
References


Wikilean. 2015. Les 2 apports du modèle de Kano, Http://www.wikilean.com/Articles/LeanOvation/KANO


Tracy B. 1995. Stop talking... and start asking questions. Sales and marketing management, 147, 2, 79-87.


Appendix

1) [Image of Volkswagen logo]

[https://youtu.be/OmRigch_76o](https://youtu.be/OmRigch_76o) (Volkswagen advertising 2012)

2) [Image of Volkswagen logo]

[https://youtu.be/mg-C_p2YnKE](https://youtu.be/mg-C_p2YnKE) (Volkswagen advertising 2016)

3) [Table]

<table>
<thead>
<tr>
<th>2015</th>
<th>Fidélité</th>
<th>Conquête</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMW Group</td>
<td>55.4%</td>
<td>41.8%</td>
</tr>
<tr>
<td>Daimler AG</td>
<td>45.3%</td>
<td>41.9%</td>
</tr>
<tr>
<td>Fiat Chrysler Automobiles</td>
<td>37.9%</td>
<td>49.7%</td>
</tr>
<tr>
<td>Ford Motor Company</td>
<td>44.2%</td>
<td>35.5%</td>
</tr>
<tr>
<td>Geely</td>
<td>43.6%</td>
<td>45.0%</td>
</tr>
<tr>
<td>General Motors</td>
<td>48.6%</td>
<td>40.5%</td>
</tr>
<tr>
<td>Honda Motor Co</td>
<td>50.7%</td>
<td>44.6%</td>
</tr>
<tr>
<td>Hyundai Motor Company</td>
<td>47.3%</td>
<td>66.3%</td>
</tr>
<tr>
<td>Jaguar Land-Rover</td>
<td>51.7%</td>
<td>64.5%</td>
</tr>
<tr>
<td>Mazda Motor Corp</td>
<td>28.2%</td>
<td>43.6%</td>
</tr>
<tr>
<td>Mitsubishi Motor Corp</td>
<td>25.8%</td>
<td>72.9%</td>
</tr>
<tr>
<td>PSA Peugeot Citroen</td>
<td>77.3%</td>
<td>25.0%</td>
</tr>
<tr>
<td>Renault Nissan Alliance</td>
<td>64.6%</td>
<td>33.5%</td>
</tr>
<tr>
<td>Suzuki Motor Corporation</td>
<td>38.8%</td>
<td>68.6%</td>
</tr>
<tr>
<td>Toyota Motor Corp</td>
<td>68.2%</td>
<td>44.3%</td>
</tr>
<tr>
<td>Volkswagen AG</td>
<td>69.6%</td>
<td>37.0%</td>
</tr>
</tbody>
</table>

4) [Image of bar chart]

5) [https://goo.gl/forms/8Yw865CLz24oJGCh1](https://goo.gl/forms/8Yw865CLz24oJGCh1)