

GENERAL ELEMENTS OF MARKET ANALYSIS FOR CUSTOMER SELECTION CRITERIA USING EXISTING AUTOMOTIVE SALES DATABASES

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Abstract: The important objective of the research is to decide the general framework for smart car production and to identify the corresponding customer, as well as the market trend. The creation of a policy and strategy, which are based on a predictive analysis of the results obtained in the specialized literature, carried out on the automotive sales market, which have integrated artificial intelligence, is an important factor in achieving the objective.

The use of artificial intelligence in consulting platforms or databases from which data are extracted, as well as the profile of each customer generated by artificial intelligence, is a trend in the car sales market in the coming years.

JEL classification: M31, M21

Keywords: strategy, procedure, customer recruitment, artificial intelligence, sales market, automotive client database

1. INTRODUCTION

With the requirements of the Industrial Revolution 4.0, with technologies that automate product manufacturing processes, the customer's requirements have also increased, starting from the production phase. Then, by the transition to the Industrial

Revolution 5.0 with the requirements to implement values in digitalized form, big data, and artificial intelligence, the customer begins to adapt to a new, dynamic, and constantly changing market (Xun, 2021). This is based on computer systems designed for the customer's needs, but especially through the use of intelligent computer systems that learn from his behavior. Thus, the prediction to a virtual consumer that teaches the system (Gangur & Plevny, 2014) to look for the most suitable product variants, in turn intelligent, aligned to demand, is obtained from the consultation of international/national databases with product components requested, but also improvements in how the intelligent system responds to this request.

If this customer is unknown, a customer discovery policy focuses on predictive analytics and then creates a strategy to meet long-term searches related to smart products and the online customer.

All this will result in the implementation of artificial intelligence on platforms that use databases that contain the characteristics and requests of the virtual client. Artificial intelligence will make major contributions on how to present digital values resulting from customer demand.

2. OBJECTIVES

We start from the premise that the car sales market is an evolutionary one from all points of view:

- both products (automotives) that start to include technologies from Industry 5.0, either green energy or smart components for increased customer comfort,
- of the market, which changes its configuration and mode of customer-seller interaction, by encapsulation of artificial intelligence elements, for an immediate and efficient sale, with a commensurate profit;
- but also the identification of the client, in a virtual way, by using some tools that help the seller to present his product online as close as possible to reality and the concrete needs of the client.

The first element of analysis is closer to the industry side, but we can remember that the connection of the car to centralized maintenance systems has an IT component. The same can be said about cars that have implemented artificial intelligence for easy and relaxing driving. To establish a prediction of the evolution of the product sales market, two elements are necessary, namely, a customer attraction policy and a customer recruitment strategy. Last but not least, it is necessary to consult existing databases, from which we will extract data regarding the customer profile (Hakami & Hosni Mahmoud, 2022).

3. METHODOLOGY

The Industrial Revolution 4.0 has brought technological changes to the automotive industry. Companies have implemented technologies based on digital structures, which has led to the transformation of the business model into an innovative one.

In turn, developed technologies began to rely more and more on digital value in various forms provided by Industrial Revolution 5.0, which led to a synergy between all types of activities within the business, internally.

Real-time production planning, by implementing data collection sensors on the entire technological flow of the manufacture of a car, will lead to a predictive analysis of raw materials, stocks, unsold cars. Thus, it can be predicted which area of the flow requires rapid fluidization or processing.

At the external level, we can talk about business partners, customers, who become the most important values of a company. They are changing the way they present the need, specifically using the digitization of all services and as much as possible the purchase of finished products, and the production is done on demand. This method is a safe one, the customer is mostly the one who launches the production.

The problem that arises is when this client needs to be identified.

EMPIRICAL RESEARCH

Consumer behavior adapts to new technological demands and therefore tries new cutting-edge applications. This behavior is not theoretical; it is already known. Along with the customer, the business model changes its requirements. Attempts to harmonize the two result in experimental data without well-known support. The customer becomes an investment for the company, especially as it brings requirements for the globalization of technological innovations.

Companies invest in the ability of customers to configure their profile and request the implementation of new technologies to achieve sales and, especially, product development goals.

The balance between income and expenses is ensured by valuing human capital, which is no longer seen as a simple executor (demand for a product and the sale of this product) but rather a key factor in achieving profit, through the demand for knowledge and implementation of technology from Industry 5.0. Thus, customers end up being part of the technological process of a car by requesting the implementation of artificial intelligence, in the usual orders. The design of a car is always based on the requirements of the customer.

PREDICTIVE ANALYSIS

In making a customer recruitment policy, the customer's requirements and how he sees the manufacturing of a car are always taken into account. This is a predictive analysis that can be extended to the car sales market which has integrated artificial intelligence. Predictability starts with building, with certainty, a stock that will sell. This stock meets the requirements of the market. Moreover, this market is usually right at the factory gate.

4. ANALYSES

4.1. PROCEDURE FOR CUSTOMER RECRUITMENT

In the research of recruiting clients, we need relationships between companies to generate income, through:

- presentation of the business model, in the relationship with customers through phone calls or emails, video presentations of the products on sale,
- identifying the database of customers and potential customers, personal network of friends, as well as tracking behavior on social networks (if they are expanding and need a new fleet of cars, if they are looking for certain smart components, etc.),
- online presentation of the offer for all customer categories, by creating content and launching it in the virtual environment,
- price negotiation,
- confidentiality related to product presentation, contracting, price negotiation, and delivery.

Table no. 1 presents a proposal of the procedure for customer recruitment.

Table no. 1 Procedure for customer recruitment

Steps	Description of the step	Technology to implement	Comments
Define Business	Describe the product to be sale Describe how to retain customers	artificial intelligence implementation	It is necessary to establish the achievements and to define de requirements for artificial intelligence implementation
Define the profil of the clients	Describe the profile of the client (identify, recruitment, planning, selection process to choose customer, communication with customer, placement, engagement in promote and sale, etc.).	artificial intelligence implementation	Implement an artificial intelligence, preferably a robot, who can identify the customer profile in international databases and keep a permanent communication with customer
Relationship between companies	Terms of the contracts, partnership, commitments	Create inquiry in an information system seen by clients (databases)	Establish the conditions of the contract by fill in an inquiry
Meetings with clients online or offline	Describe the request of the client, be proactive	artificial intelligence implementation	Return the conversation with a chatbot or a movie in which the product and the new facilities
After sales	Client satisfaction Retain clients	artificial intelligence implementation	Establish the limits of the sale Free services Discounts for other products Clients are part of the business innovation

Source: Own adaptation based on information from empirical research

4.2. CUSTOMER IDENTIFICATION STRATEGY THROUGH THE INTEGRATION OF ARTIFICIAL INTELLIGENCE

This strategy is necessary to identify potential customers, according to the previous policy, to identify the products to be manufactured, as well as the implementation of advanced technologies based on artificial intelligence.

The stages of the strategy are:

- 1) Customer analysis. Feedback analysis is essentially the foundation of the strategy; it checks the breaks, but especially how the customer perceives the finished product. These operations are done with the help of a computer system that contains artificial intelligence and that learns the customer's preferences, creates links between the company and the customer, and personalizes the offer. Initially, it can be seen from practice that a customer who is not provided with information about his preferences will abandon product research. Therefore, it is necessary to identify all the ways to attract the customer and, moreover, his product selection preferences. Personalized offers are analyzed by the company to see how much sales increase.
- 2) Applying internal rules to keep a customer loyal. The offer made to the customer must be rational in terms of profit for the company and extend to a package of

services. The categories for customer that are buying products are made by customer power of buying. Therefore, for an advantageous price, as many customers as possible are needed, and this is obtained from as many databases with customers approached through all means of communication and socialization. Most of the time, the client is invited to the promotion and launch events of a new product. Testimonials, reviews, influencers, and case studies are part of client marketing.

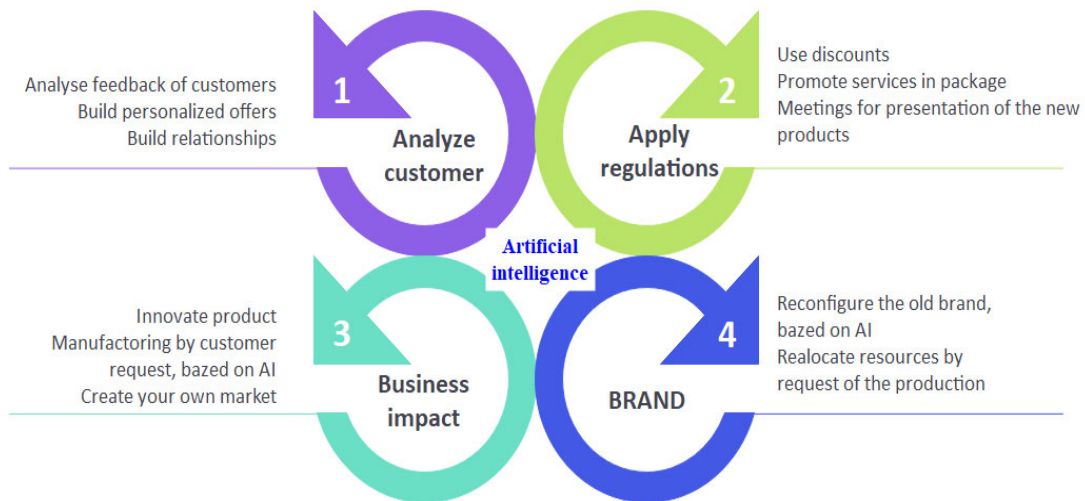
- 3) Business. The complex decision-making model is a vital component for the business, especially when talking about discounted or service/product packages. In this sense, the emphasis is on the well-known Business-to-Business (B2B) - Account-Based Marketing (ABM) marketing and sales strategy, which ensures automation in the relationship with customers, radically changing the typology of sales, but maintaining a balance between personalization packages and automation. It is not competition that leads to failure in this case, but the manager who intervenes in this whole ensemble and who did not understand the solution required by the client.
- 4) Brand. Brand building is done over time. Customizing some objects with the business brand will lead the customer to recall a product. If this product has been identified by the customer as important for their living, then from the previous experiences of the company, they will definitely return to upgrade the product.

5. RESULTS

The strategy that contains the customer recruitment policy in the car sales market, with integrated artificial intelligence, the advertising of intelligent car products, and the identification of the corresponding customer, as well as the new electronic market trend, is an important result that can be implemented in the innovative business model. In summary, the strategy looks as in Figure no.1.

Strategy for customers recruitment

Artificial intelligence implementation



Source: Own adaptation based on information from empirical research

Figure no. 1 Identify the right customer for business

The integration of artificial intelligence into production mechanisms will support business by creating automations that ensure fluidity of production. The data collected on the stream are sent to databases and data will later be extracted from them, for each customer. From this will result the documentation and analysis of Big Data models.

The use of artificial intelligence in consulting the platforms/databases from which data is extracted, for each client, should contain mechanisms to accelerate or decelerate innovation (Ozdemir & Hekim, 2018).

Artificial intelligence influences not only the way the consumer receives the requested data (Jarek & Mazurek, 2019), but also the way it is searched for.

The behavior of the consumer should be identical both in the virtual environment and in the online environment, even if the language of communication is different. Depending on the organizational culture, the way of selling a product is defined. In this case, artificial intelligence that supports the market environment intervenes. Thus, the resulting data is collected and stored in databases as and when needed.

The SWOT analysis highlights the requirements formulated by the client, and these are found in the platforms / databases supplemented by artificial intelligence.

Table no 2. SWOT analysis

Strengths	Weaknesses
In marketing research, data is collected with AI, Market analysis is done automatically with AI, Customer requirements are interpreted and realized with AI (Huang&Rust, 2021). The production of a car in a smart factory has	Customers are reserved about new products if they do not know the technology, innovation (Paschen et al., 2019). Implementing personalized intelligent systems (Dumitriu & Popescu, 2020) is expensive

major benefits bringing production safety (Sjödin et al., 2018). Product sales are assisted by chatbots, which increases sales (Khan, 2020).	Chatbots do not live up to customer expectations (Adam et al., 2021).
Opportunities	Threats
Using autonomous vehicles in day to day activity (Severino et al., 2021) AI is changing strategies and policies through the development of robots (Devenport et al., 2020). Predicting how AI influences the marketing plan (Fayed, 2021) AI identifies customer demand in Big Data databases (Yang et al., 2021).	Customers think chatbots can offer information with errors (Arsenijevic & Jovic, 2019). Changing the business model for the automotive aftermarket that does not use artificial intelligence (Dombrowskia & Engela, 2014) Online orders in increased numbers represent a risk for the company (Vanneschi et al., 2018).

5. CONCLUSIONS

Creating a strategy in which there is a policy based on predictive analysis, has a result of the production of passenger cars, but also in the car sales market, which have integrated artificial intelligence (AI), is the most important result obtained in achieving the objectives.

Business model innovation by adapting the existing business model or creating a new business model with AI integration that better meets the customer's needs is another outcome.

In-depth research on the business model of the car sales industry, in the environment of industrial revolution 4.0, is necessary to detail the innovative business model, based on an existing model, in car sales, with artificial intelligence in the business policies and strategies of the innovative model, and the appreciation critique of the current state of knowledge regarding the conceptualization and implementation of an innovative business model in the automotive industry.

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