

Analysis of the internal strategic alignment of the production strategy: case study in an auto parts company of the municipality of Sorocaba/SP

Análise do alinhamento estratégico interno da estratégia de produção: estudo de caso em uma empresa de autopeças do município de Sorocaba/SP

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Abstract: The auto parts sector plays an important role in the national economy and has the need to become more competitive in face of some difficulties in the current context. In this scenario, it is considered of great importance the alignment of the production strategy and its contribution to the competitiveness of the sector in the country. Thus, the research aims to analyze, based on methods proposed in the literature, the degree of internal alignment of the production strategy in two segments of one company in the auto parts sector. The method adopted was the case study, being the research of combined character that makes use of the qualitative and quantitative approach. Among the main results, it can be seen that, although the organization analyzed has more control over the production process technologies for products that serve the commercial vehicle market, there are efforts to reduce the product portfolio and standardize the products offered in the market. with cost as the competitive priority emerging.

Keywords: Strategic alignment; Production strategy; Competitive strategies.

Resumo: O setor de autopeças tem um papel importante na economia nacional e possui a necessidade de se tornar mais competitivo diante de algumas dificuldades enfrentadas no contexto atual. Nesse cenário, considera-se de grande importância o alinhamento da estratégia de produção e sua contribuição para a competitividade do setor no país. Desse modo, a pesquisa tem como objetivo analisar com base em métodos propostos na literatura, o grau de alinhamento interno da estratégia de produção em dois segmentos de uma empresa do setor de autopeças. O método adotado foi o estudo de caso, sendo a pesquisa de caráter combinado que faz uso da abordagem qualitativa e quantitativa. Entre os principais resultados percebe-se que, embora a organização analisada tenha maior domínio sobre as tecnologias de processo de produção voltados aos produtos que atendem ao mercado de veículos comerciais, existem esforços para a redução do portfólio de produtos e a padronização dos produtos oferecidos no mercado, sendo o custo a prioridade competitiva emergente.

Palavras-chave: Alinhamento estratégico; Estratégia de produção; Estratégias competitivas.

1 Introduction

According to the National Automobile Manufacturers Association - ANFAVEA (2015), the automotive industry currently has 64 plants divided into 52 cities in Brazil and represents almost 25% of the Gross Domestic Product - industrial GDP

and 5% of the national total GDP, with revenues above US\$ 110 billion. Added to this is the expectation that this number will increase further in the coming years with the recent investments made by automakers.

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The importance of the automotive industry manifests itself even more intensely when one notices that it moves a huge production chain, which includes manufacturers, suppliers of raw materials, suppliers companies, distributors, gas stations, insurance companies, mechanical workshops, advertising agencies, among others, generating an impressive amount of jobs in the country.

In addition, the Brazilian federal government, through the Inovar-Auto Program (Incentive Program for Technological Innovation and Automotive Vehicle Productivity Chain), adopted a series of measures aimed at stimulating investment in the national automobile industry. Among these benefits, reduced the IPI for companies that stimulate and invest in innovation and research and development within Brazil.

In parallel, several authors (Hrebiniak & Joyce, 2001; Atkinson, 2006) consider that the formulation of the strategy has received more attention in the literature and, consequently, researches that addresses strategy implementation (or internal alignment) is rarer.

Hill & Cuthbertson (2011) concluded in relation to the internal alignment and level of performance of service providers that well-aligned production strategies are significantly and positively related to the company's market share, while a well-aligned delivery system is related, in the same way, with return on sales. They further confirmed the view of authors such as Smith & Reece (1999) that alignment within certain elements is more important than the overall strategy chosen by the organization.

To effectively link the company's production strategy to the needs of the market, these factors must be understood and agreed by the sectors of a company. Without this alignment, they often operate in the short run in conflict with their long-term goals. This invariably results in a weak positioning between manufacturing activities and the overall strategy (Hill, 1989).

From this perspective, the present work intends to analyze, through a case study, the internal alignment of the production strategy in two market segments of a large auto parts company in the city of Sorocaba/SP. The analysis will be based on the works of Hill (1989),

Hill & Brown (2007) and Hill & Cuthbertson (2011). The central objective is to identify the level of internal strategic alignment of organizations by increasing their work by investigating the relationship between internal strategic alignment level and organizational performance.

For this, the article first presents a bibliographical review emphasizing the internal alignment of the production strategy. Next, it shows the research method used and the analysis of the results of the research. Finally, the final considerations are made.

2 Literature review

2.1 The strategic hierarchy

According to Mintzberg et al. (2006, p. 22), "[...] a strategy is the standard or plan that integrates the main goals, policies, and sequences of action of the organization into a cohesive whole." For authors such as Hayes et al. (2008), there is a consensus in the literature that the strategy is defined in three hierarchical levels: corporate strategy, business strategy, also called competitive strategy, and functional strategy. Figure 1 shows this hierarchy, called the top down perspective (Hayes et al., 2008).

The first level, that is, corporate strategy guides and drives the corporation in its global, economic, social and political environment (Hayes et al., 2008). According to Mintzberg et al. (2006), the corporate strategy is the decision model of a company that determines and reveals its objectives, purposes or goals, produces the main policies and plans to reach those goals and defines the scope of business that the company will adopt, type economic and human organization that it is or intends to be and the nature of the economic and non-economic contribution it intends to make to its shareholders, employees, customers, and communities.

At the intermediate level, the business strategy or competitive strategy is defined by Hayes et al. (2008), as the strategy to be adopted by each business unit (UN) within the corporate group, which will establish its mission and individual objectives. In other words, the business strategy guides the company within the

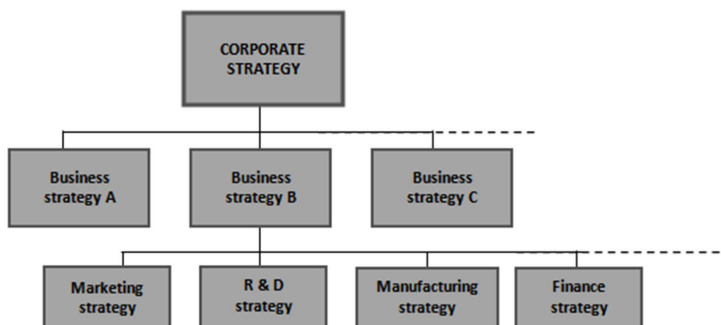


Figure 1. Hierarchy of business strategies.

group of which it is part and in its external environment considering the variables: consumers, markets and competitors (Slack et al., 2007).

At this level, Porter (2004), based on a market-based view, proposes that firms can compete via differentiation or leadership in total cost, industry-wide or only in a particular segment (focus). Such strategies are chosen from the structural analysis of the industry to which the organization belongs.

In contrast to Porter's (2004) view that strategy is shaped from an industry analysis, the Resource Based View (RBV) proposes that the source of competitive advantage is internal to the organization. For Barney (1991), to gain sustainable competitive advantage, internal resources need to have four fundamental characteristics: they must be valuable, rare, imperfectly imitable and non-replaceable.

For Maia & Alves (2015), RBV considers that there is a heterogeneity when it comes to the distribution of resources among firms, and that this heterogeneity can last for a long period, since these resources are not perfectly mobile and negotiable. Returning to the strategic hierarchy, functional strategies (third level), in turn, refer to the role of each functional area of the company to contribute to its strategic objectives.

The production strategy is the functional focus strategy of this article and is defined by Hayes et al. (2008) as a set of goals, policies, and constraints that describe how the organization plans to direct and develop all the resources invested in production to better meet (and possibly redefine) its mission.

A common way to visualize the production strategy, according to Voss (1995, 2005) and Alves & Vanalle (1999) it has been to separate the approach in two different terms, which for Slack et al. (2007), although different, act in a juxtaposed way.

The first one refers to the "process" of how these strategies are determined and govern the procedures in the company to produce specific decisions. It's the "how-to" questions of strategy. The second refers to the "content" of the strategy, which are the specific actions that constitute the points on which decisions are made. The content of a strategy involves the functional decision areas and the competitive priorities. They are the "what" questions of the strategy (Slack et al., 2007).

For Alves et al. (1995), competitive production priorities (also called competitive dimensions, production missions or performance objectives) need to characterize a consistent set that will guide the programs to be implemented by the production function in an organization.

Each competitive priority is influenced by the particular values of each consumer. Thus, different clients mean different requirements for the same priorities, a fact that requires a useful way of determining the overall importance of each of them. This can be done

through the distinction between winning factors and order qualifiers (Hill, 1989).

The order-winning criteria are those that contribute directly to the realization of a business and are considered as the differentiators of the market for the purchase by the consumer. The qualifying criteria do not include the key elements for negotiation, but they are important in order to guarantee a minimum level, under the penalty of being disqualified by the client (Hill, 1989).

However, customers are not the only determining influence. Even without changes in consumer behavior, the organization may have to change the way it competes (or its competitive priorities) due to a competitor's action, or change its priorities in order to achieve market differentiation (Slack et al., 2007).

Competitive priorities tend to act as criteria for the formation of strategic groups in the analysis of organizational behavior. Its influence plays a decisive role in understanding how companies make decisions in order to align their internal and external actions. The most frequently addressed priorities in both national and international literature are cost, delivery, flexibility and quality (Jabbour, 2010). Christiansen et al. (2003) and Ward et al. (2007) corroborate these four generic priorities, after research in international publications.

In this way, it can be seen that the unfolding of the corporate strategy to the lower hierarchical levels requires an alignment between the decisions related to the organization in a systemic way.

2.2 Strategic alignment

The need for alignment is seen in Chandler's pioneering work (Chandler, 1962), which, through his book *Strategy and Structure*, analyzes changes in organizational structure resulting from changes in the organization's strategic behavior motivated by changes in the environment in which organizations were embedded. His study involved four large American companies in the first decades of the last century. The strategy, in this case, is understood as the plan of allocation of resources against an anticipated demand. The structure refers to the organizational form resulting from the integration of these resources.

Hall & Saias (1980), also analyze the close relationship between environment, strategy and structure. For the authors, among other conclusions, organizational structures may restrict strategic choices. Rajapakshe (2002), in later work, while stressing that there is a mutual influence between strategy and structure, states that previously defined strategies can only be implemented as soon as a sound organizational structure develops.

Selznick, in a book published in 1957, points out the question of the singularity of companies in the face of

the environmental context, that is, of their distinctive competence. It reinforces the need to strengthen the organizational singularity through the analysis of the environment (Vizeu & Gonçalves, 2010).

In the Business Policy: text and cases and The Concept of Corporate Strategy books by Learned et al. (1969) and Andrews (1971) respectively, it is also perceived the need for alignment between strategy and structure. In them, the authors focus on issues related to strategy and strategic planning and address the formulation and implementation of the strategy. In the case of implementation, it is perceived that there must be the alignment between strategy and organizational structure.

Miles & Snow (1978) later emphasize the need for alignment between environmental conditions and organizational behavior. For the authors, the companies present stable strategic behaviors that are accompanied by complementary mechanisms, structure and organizational processes.

In this case, there are four types of generic strategies: prospective, defensive, analytical and reactive. In the first type, the organization is committed to expanding its line of products and services and launching new innovations in the market. In the second (defensive), the organization seeks stability in terms of products, not greatly expanding the line and improving existing products and services.

In the analytical strategy, seen as a hybrid type of prospective and defensive strategies has, on the one hand, the search for the maintenance of a smaller number of products and services already existing and, on the other, it is tried to add products or services that were well in other companies in the segment. Finally, in the fourth type (reactive strategy), we only seek to react to competition and environmental pressures. In the latter type, there is no consistent relationship

between structure and strategy and there is a risk of losing profitability.

The need for alignment is perceived in the works of Henderson & Venkatraman (1999) in that the authors highlight the issue of adjustment in the external (organization and environment) and internal domains, emphasizing that in this sense, information technology plays an important role strategic.

The following section deals with the particular alignment of the production strategy, based on the reference adopted in the present study.

2.3 The alignment of the production strategy - Hill's Method (1989), Hill's and Brown's (2007) Method and Hill's and Cuthbertson's Method (2011)

Hill (1989) proposed the order-winning criteria and qualifiers for managers to better understand the market and therefore prioritize investments that best meet the needs of current and future markets. The definition of qualifying and order-winning criteria helps in making decisions about production strategies.

Hill (1989) defined ideal profiles for each type of organization according to its market. The profile includes aspects of the market, products, operations and investments that are associated as one of three process choices: jobbing, batch or production line. As shown in Figures 2 and 3, for each profile there is a set of ideal decisions in each of the aspects.

Figure 2 refers to an example of the relevant aspects of products and markets.

And Figure 3 refers to a generic example of manufacture.

To measure the adherence of a business unit to the ideal profile, Silveira (2005), for example, mentions that one of the most common approaches is profile deviation. From this perspective the misalignment can

Some relevant aspects		Typical characteristics of process choice		
		jobbing	batch	line
Products and markets	Product range	long		narrow
	Customer order size	little		big
	Level of schedule changes required	high		low
	Winning orders	Speed of delivery/ Single capacity		price

● ○ Position of existing products in each chosen dimension and resulting profile

● ○ Position of new products in each chosen dimension and resulting profile

Figure 2. Example of alignment to the production strategy - products and markets (adapted from Hill & Brown, 2007).

be measured by the Euclidean distance between the ideal profile and the decisions made. Consequently, the alignment is greater the smaller the distance between the organization's production strategies and the ideal profile.

Figure 4 explains the profile deviation approach.

Thus, in Figure 2, processes for the production of low volumes (jobbing), for example, would have speed of delivery as an order-winning criterion, would offer a greater variety of special products, customized, constituting in highly flexible processes.

In this sense, Hill & Brown (2007) also adapted the tool for their application in service companies allowing, thus, the organization to know its level of internal alignment. Also, they determined a scoring scale that would be possible to measure the internal alignment. For this, two works already existent in

the literature were combined in the Hill & Brown (2007) technique: Hill (1989) about the qualifying criteria and request winners and Heskett (1986) on the strategic vision of service.

The work used as a basis contributed to the evaluation of three aspects: the importance of different competitive criteria in the market in which the organization is inserted, the production strategies and the delivery service system (Hill & Brown, 2007).

The method of development of the Hill & Brown analysis (2007) consisted of interviewing different managers at each level of the hierarchy in order to analyze each one's opinion on the importance of different competitive criteria in the competitive environment of his organization (Hill & Brown, 2007). From this, three steps were proposed to measure the internal alignment level of each company:

Some relevant aspects			Typical characteristics of process choice		
			jobbing	batch	line
Manufacture	Process	Technology	General purposes		Dedication
		Flexibility	High		Low
	Production volumes		Low		High
	Key manufacturing task		Specification changes and lead time		Low manufacturing cost

- Position of existing products in each chosen dimension and resulting profile _____
- Position of new products in each chosen dimension and resulting profile - - - - -

Figure 3. Example of alignment to production-manufacturing strategy (adapted from Hill & Brown, 2007).

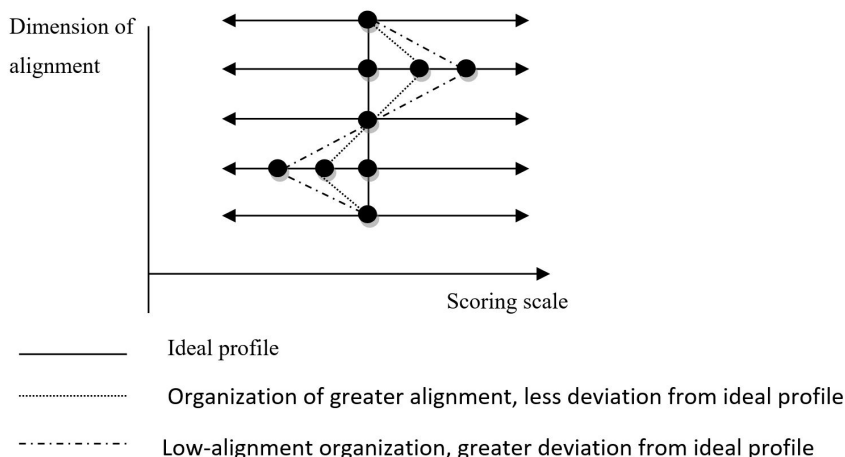


Figure 4. Profile deviation approach (adapted from Silveira, 2005).

1. Categorize the competitive criteria identified by executives: the criteria identified as important are allocated in groups predefined by the authors;
2. Summarize the dimensions of production strategies and the delivery service system to give a cross-functional perspective to the entire organization;
3. Compare the production strategies and the delivery service system with the categories of the competitive criteria in order to answer questions such as: “Are the production strategies aligned with the competitive criteria? The delivery service system is in line with the criteria competitive?” (Hill & Brown, 2007).

The level of alignment is finally calculated based on the percentage of the total groupings of the competitive criteria that corresponded to the production strategies and the delivery service system. The company’s strategic alignment profile is then plotted in a framework that visually represents the organization’s alignment level (Hill & Brown, 2007).

Figure 5 shows an example of the application of the Hill & Brown (2007) technique in a company with a low level of strategic internal alignment.

Hill & Cuthbertson (2011), in turn, used the same technique as Hill & Brown (2007) to identify the level of internal strategic alignment of organizations by increasing their work by investigating the relationship between internal strategic alignment level and performance of the organization.

The authors also added six different classifications of the degree of alignment and suggested how

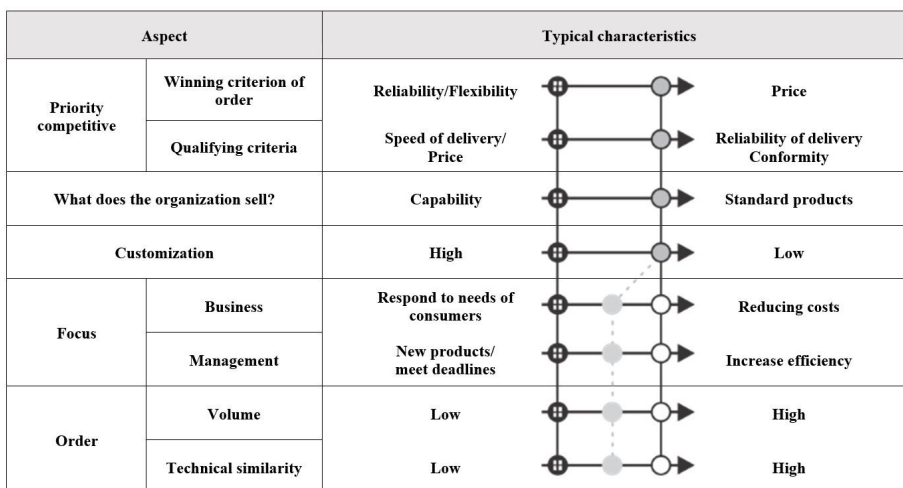
companies could move from one rating to another and what the impact would be on their performance. However, the proposed classifications are applicable to companies that provide services.

In addition, organizations may have low, medium or high level alignment. Organizations that have a low level of alignment can be classified in two different ways: those that understand the market and those that understand processes. Market-priority ones use performance measures based on customer requirements and are concerned with how well customers are being served; those that prioritize processes, generally focus on the engineering of production processes, reduce the level of customer interaction, and have their process-based performance measures (Hill & Cuthbertson, 2011).

Highly aligned organizations are leveraging services and process capabilities to increase sales and enter new markets, these organizations not only understand the productive processes and manage them well, but use their structure to gain competitiveness. Some organizations also use their structure to increase sales, however, they succeed by leveraging their existing customers offering restructured services (Hill & Cuthbertson, 2011).

3 Methodological procedures

For Gunther (2006), in order to structure the similarities and differences between qualitative research and quantitative research, some factors must be considered, such as the researcher’s posture, data collection strategies and the applicability and use of research results, among others.



Legend
 ⊕ Market segment 1
 ● Market segment 2
 ○ Market segment 3
 ● Overview of all business functions

Figure 5. Example of management application in a company with a low level of strategic internal alignment (adapted from Hill & Brown, 2007).

The basic concern of the present research is to deepen the internal alignment of the production strategy, opening up this relation to a social reality, within a specific context, to better learn and understand it, a fact that, according to Martins (2004), characterizes a qualitative research approach.

For both Martins (2004) and Gunther (2006), as the qualitative approach always works with social units, it favors case studies. It is understood as case, the individual, the community, the group or the institution, especially for its easiness to fit the object of study (Gunther, 2006).

Thus, the procedure method used in the research will be the case study of a company supplying the automotive chain. To analyze the selected unit according to the research objective, Hill & Brown (2007) and Hill & Cuthbertson (2011) will serve as the basis for the work. The techniques used for data collection were semi-structured interview, direct observation and analysis of documents provided by the company.

To identify the ideal profile, interviews were conducted with the organization's Strategic Planning Director and one of its advisors. Two different market segments were identified: the commercial vehicle segment and the passenger vehicle segment. The central issues applied to top management and production management were grouped taking into account criteria qualifying and winning order; products sold by the company; focus of business and management; and volume of production, as central elements in data collection, identified from the works of Hill & Brown (2007) and Hill & Cuthbertson (2011).

The search for meaning of information collected in the field is guided by the search for consistent patterns based on interviews and confrontation with literature. Even in an isolated instance it is possible to identify a relevant element, even though from a direct interpretation. Thus, from coding categories already established from the literature potential correspondences were established and confronted in the literature.

4 Analysis of results

Broadly speaking, both in the commercial vehicle market and in the sidewalk market, the company in this case study is known for its sophisticated machining, discouraging entry of competitors. Table 1 briefly summarizes the results of the interviews on the competitive market criteria for each segment.

Based on the interviews and the Hill classification (1989) according to the mode of production, the ideal profile was identified based on the dimensions of competitive market criteria. The jobbing profile does not fit as ideal in any of the market segments. Hill (1989) also calls this unit or one-off profile and adds that the companies in this profile require highly skilled employees because the company's success is highly dependent on that factor, especially since the client will often request minor changes.

Batch and line profiles are eligible for this case study. The batch profile enables the production of larger volumes and a wide variety of products. Generally, the production system is the make-to-order, that is, the company only produces upon a previous request of the customer. The business is oriented to sell "capacity", but by means of high volumes, the price can be an order-winning criterion. This profile covers a wide variety of production volumes (Hill, 1989).

The line profile is geared towards producing large volumes in a way that justifies the investment in dedicated production lines. In this profile, the organization sells standardized products and price is the main criterion winning order. High volumes guarantee the organization's revenue (Hill, 1989).

In this context, it is necessary to consider two ideal profiles for the company in its different strategic business units (UEN). For Hayes et al. (2008), a UEN may be a subsidiary, plant, division or product line.

It is worth mentioning that in this research, the ideas found in the literature, specifically those of Hill (1989), are being used, but Hill emphasizes that each organization has its ideal profile represented by the point of agreement between product, market,

Table 1. Competitive market criteria.

Aspect	Segment	Segment
	Commercial Vehicles	Recreational Vehicles
Qualifying criteria (in order of importance)	Quality	Velocity
	Conformity	Delivery reliability
	Reliability of delivery speed	
Award winning criteria (in order of importance)	After sales service	Cost
	Flexibility	Quality
	Cost	
What does the company sell? Customization (Flexibility)	Semi-custom products	Standard products
	Medium to high	Low
Business focus	Meeting customer needs	Reduce cost
Management focus	New products and services	Improving efficiency
Volume	Medium	High

manufacturing and investments. Silveira (2005) considered the calculation of the ideal profile using a large sample of companies in the same industry according to the International Standard Industrial Classification (ISIC) classification.

After defining the ideal profiles, the next step is to investigate whether the organization adheres to the company profile and, consequently, if the organization is meeting the market requirements in which it is inserted. The following variables were investigated through data obtained in the organization, systemic observations and interviews with those involved in each variable to investigate the internal alignment. For this second stage, the variables defined in the work of Hill & Cuthbertson (2011) were used as well as the scoring presented by the authors.

According to Hill & Cuthbertson (2011), the scale is based on each of the profiles, however, should not be considered as discrete, that is, the scale is continuous, the score can be of any value. However in this work the scale was considered as being discrete to facilitate the score of the variable. The score represents the current situation of the organization.

The misalignment is measured by the Euclidean distance between the position of the current profile and that of the ideal profile for each variable in a given organization. Then, the degree of alignment

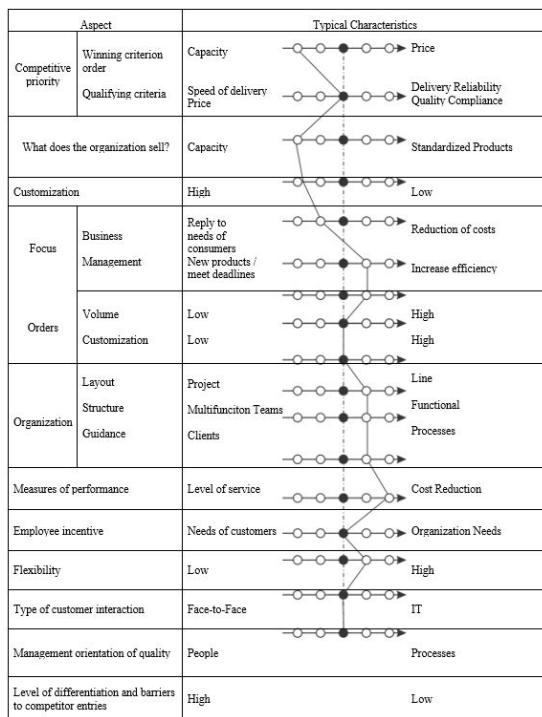
of each variable is measured by subtracting the misalignment obtained previously by the maximum possible Euclidean distance, which in this case is 4. In the end, the mean is calculated to express the degree of alignment of the company, all variables have the same weight. Thus, the highest possible degree of alignment is 4, which indicates that the company's current situation is at the exact point of its ideal profile (Hill & Cuthbertson, 2011).

Tables 2 and 3 show, respectively, the score of each variable and the degree of alignment of this variable with the ideal profile degree for the competitive market criteria and for the production strategies: the degree of alignment 4 indicates that the company is aligned with your ideal profile. VC was considered for the segment of commercial vehicles and VP for the passenger vehicle segment.

And Table 3 presents the ideal profile for production strategies.

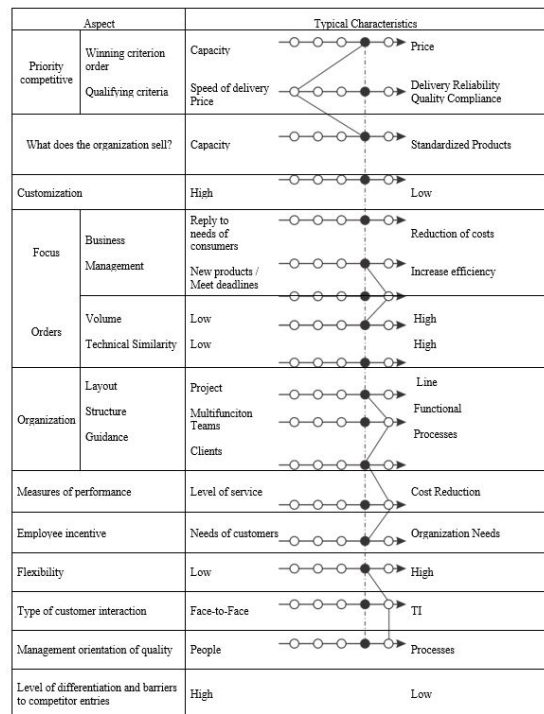
Table 4 shows a simple average of the degree of alignment for the variables of competitive market criteria and production strategy.

Thus, to visualize the obtained results and the degree of alignment, the ideal profile and the current profile of the company were plotted for the segments of commercial and touring vehicles, as shown in Figures 6 and 7, respectively.



Legend
 ● current profile position
 ○ ideal profile position

Figure 6. Internal segment alignment of commercial vehicles.



Legend
 ● current profile position
 ○ ideal profile position

Figure 7. Internal alignment of the passenger vehicle segment.

Table 2. Ideal profile for competitive market criteria.

Dimension	Rating <i>Ideal Profile</i>	Scale	VC 3	Degree of Alignment	VP 4	Degree of Alignment
Criteria for winning orders	How important is it to offer fast deliveries?	1 (very important) 5 (not so important)	3	4	1	1
	How important is it to offer new products more often?	1 (very important) 5 (not so important)	2	3	5	3
	How important is it to have lower selling prices?	1 (very important) 5 (not so important)	2	3	5	3
Product sales process	What is the importance of having unique capability compared to competitors?	1 (very important) 5 (not so important)	1	2	4	4
	How similar is the product of this company to that of its competitors?	1 (not similar) 5 (very similar)	2	3	5	3
Customization	How often are products subject to change?	1 (all the time) 5 (never)	1	2	4	4
<i>Key Business task</i>	How important is it to respond to customers' needs to keep the business going?	1 (very important) 5 (not so important)	1	2	4	4
	How important is it to reduce costs to maintain the business in the future?	1 (not so important) 5 (very important)	2	3	5	3
<i>Key management task</i>	What is the degree of managerial dedication in developing new products / solutions?	1 (very significant) 5 (not so significant)	1	2	4	4
	What is the degree of managerial dedication in improving processes through increased efficiency?	1 (not so significant) 5 (very significant)	5	2	5	3
Volume	What is the volume of similar products sold in one year?	1 (very low) 5 (very high)	4	3	5	3
Technical similarity	What is the level of technical similarity of products sold within orders from different customers?	1 (not similar) 5 (very similar)	2	3	3	3

VC - segment of commercial vehicles and VP - segment of passenger vehicles.

Table 3. Ideal profile for production strategies.

Dimension	Evaluation <i>Ideal profile</i>	Scale	VC 3	Degree of Alignment	VP 4	Degree of Alignment
<i>Layout organization</i>	How many activities are performed on the production on the production line?	1 (none) 5 (all)	3	4	3	3
Organizational Structure	What is the amount of activities performed by multifunction teams?	1 (all) 5 (none)	4	3	4	4
Organizational Guidance	Organizational Guidance How much activity is structured around clients rather than processes? 1 (all) 5 (none)	1 (all) 5 (none)	4	3	4	4
Orientation of performance measures	How many performance measures are used to monitor and improve customer service?	1 (all) 2 (most) 3 (half) 4 (the minority) 5 (none)	4	3	4	4
	How many performance measures are used to monitor and reduce operating costs?	1 (none) 2 (the minority) 3 (half) 4 (most) 5 (all)	4	3	4	4

VC - segment of commercial vehicles and VP - segment of passenger vehicles.

Table 3. Continued...

Dimension	Evaluation	Scale	VC	Degree of Alignment	VP	Degree of Alignment
<i>Ideal profile</i>			3		4	
Incentive and reward method	What is the percentage of incentives or rewards for employees linked to customer support improvements?	1 (100%) 5 (0%)	5	2	5	3
	What is the percentage of incentives or rewards for employees involved in reducing operating costs?	1 (0%) 5 (100%)	5	2	5	3
Flexibility	How much investment do you need to offer new designs?	1 (not so significant) 5 (very significant)	3	4	5	3
Interaction with customers	What is the number of face-to-face interactions with customers?	1 (all) 5 (none)	4	3	4	4
Quality management guidance	What is the amount of inspection done by equipment (automatic)?	1 (none) 5 (all)	3	4	4	4
Level of differentiation	What is the quantity of similar products also offered by competitors?	1 (none) 5 (most)	3	4	4	4
Barriers to Entry	How many products could be offered by competitors?	1 (none) 5 (most)	3	4	5	3

VC - segment of commercial vehicles and VP - segment of passenger vehicles.

Table 4. Degree of internal alignment for the market segments of commercial vehicles and passenger cars.

	VC	VP
Competitive market criteria	2.75	3.20
Production Strategy	3.07	3.38
Overall average	2.92	3.28

VC - segment of commercial vehicles and VP - segment of passenger vehicles.

It can be seen from the results presented that the degree of internal alignment in this case study is greater for the segment of passenger cars than for the segment of commercial vehicles. Analyzing the variables that have the alignment of less than or equal to 2, are the importance of having unique capability against competitors, the frequency with which products are subject to change, the importance given in responding to the needs of customers to maintain the future business, the level of managerial dedication in developing new products and improving process efficiency and incentive and reward methods.

Profile 3 was attributed mainly due to production volumes, however, the variables showed that the company prioritizes too much customization. The importance of having unique capacity against competitors was perceived to be as important as in single-project companies.

As a consequence, the frequency with which the products are subject to changes is high, and thus the

degree of managerial dedication in the development of new products becomes greater than necessary in relation to the ideal profile. In addition, it was emphasized that it is more important to respond to customers' needs to maintain the business in the future in relation to cost reduction, unlike companies in profile 3 that rank both equally, according to Hill & Cuthbertson (2011).

In this sense, the fact that respondents emphasize that in the near future the competitive criterion would be cost rather than flexibility corroborates this perspective. As a consequence, the managerial dedication to improving processes through increased efficiency should be greater than the current situation today.

The indicators of the incentive and reward method are totally process-oriented and there is no indicator linked to improved customer service. These indicators are: total volumes, frequency rate, test rejection and scrap rate.

Unlike the segment of heavy vehicles, the segment of vehicles of walking has greater internal alignment. The variables that are internally misaligned with the commercial vehicle segment, such as the incentive and reward method, are more aligned with the ideal profile 4. The variable that has the lowest level of internal alignment with profile 3, vehicles of walking, was the importance of fast deliveries.

When you rate this variable, the importance of fast deliveries, as being "very important", it is understood that the delivery is subject all the time

to extra costs of extra freight. However, profile 3, which has cost priority, does not provide for this increase in operating cost.

According to Hayes et al. (2008), the choices made in each of the decision areas, generate variable operating costs. The company in question adopts a policy of low inventory level and its production index is adjusted to follow customer demand, thus, the company does not use mattresses to absorb the fluctuations of the demands.

In order for the organization to opt for non-absorption of demand variations through inventories, it should not operate at full capacity, production should be organized in a job shop so that production could respond rapidly to variations (Hayes et al. 2008). The above description is not observed in the collected evidence.

Regarding the alignment of the UEN of commercial vehicles, the main criterion winning the orders “after-sales service” is not under the competencies of the manufacture, as suggested by Hill (1989). Analyzing the second criterion, “flexibility” concludes that this is in disagreement with the ideal profile 4, that is, the flexibility of products is seen as primordial, but the production strategies are not configured for a rapid response to the variations of demand and the volumes are not in agreement with the variety of products that the company wants to offer.

However, the organization understands how this misalignment is perceived. During the interviews, efforts were made to reduce the product portfolio and standardize the products offered in the market, with cost as an emerging competitive priority.

It can be observed from the answers obtained that there is a greater alignment to the UEN profile of walking vehicles in relation to the UEN of commercial vehicles. Because the organization has more control over the production process technologies for products that serve the commercial vehicle market, it can be associated with less adherence to profile 3 by associating the classification of the degree of alignment of Hill & Cuthbertson (2011).

According to the authors, companies that have low level of alignment either understand the market or they understand the process. In this case, the organization is more process oriented, which is more in line with the commercial vehicle market profile than with the heavy vehicle profile.

5 Final considerations

The study of the process of the production strategy is consolidated both in the international literature and in the national literature. The study of the national automotive chain, given the particularities of the dependence of large automakers (Bourguignon & Botelho, 2009), emphasize the importance of research that involves the internal alignment of the production

strategy in order to favor the competitiveness of these companies.

Thus, the research sought to identify the level of internal strategic alignment of organizations and how this interferes and is reflected in the level of performance of the organization. To that end, the literature was reviewed on the topics involved, as well as measures were developed that composed an instrument to evaluate them from Hill (1989), Hill & Brown (2007) and Hill & Cuthbertson (2011).

Among the main results, it can be seen that, although the organization analyzed has more control over the production process technologies for products that serve the commercial vehicle market, there are efforts to reduce the product portfolio and standardize the products offered in the market, with cost as the competitive priority emerging.

The methodology applied brings a contribution to the literature by adding the relationship between internal strategic alignment level and organizational performance, bringing to the discussion a profile deviation approach.

It is believed that the great challenge faced by the researchers and the area managers in the present research refers to the operationalization of the alignment. In this sense, the research corroborates the perspective of Hayes et al. (2008), showing that the choices made in each of the decision areas generate variable operating costs in the analyzed case.

It should be emphasized that this exploratory research does not allow the generalization of its results to any companies in the various sectors of activity. To that end, it is suggested to the researchers of the area to carry out a sample procedure and replicate this work in the various sectors of activity.

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