

The role of the vertical integration strategy in improving company performance – case study of Brandt Company

دور إستراتيجية التكامل العمودي في تحسين أداء المؤسسة – دراسة حالة مؤسسة

Brandt للأجهزة الكهرومنزلية.

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Abstract:

This study aims to highlight the role of vertical integration, in improving the performance of Brandt Company. The questionnaire was used as a tool for collecting data and information from the study sample of. The study concluded that the vertical integration, with its various types, has a significant role in improving the company performance. The company depends primarily on the front vertical integration to improve its performance followed by the rear vertical integration in the second respect.

.keyword: Vertical Integration, Rear Vertical Integration, Front Vertical Integration, Company Performance.

JEL classification code : L22, L29.

ملخص:

تهدف هذه الدراسة إلى تسليط الضوء على دور التكامل العمودي بنوعيه الأمامي والخلفي في تحسين أداء مؤسسة Brandt، فالتكامل العمودي يعتبر من الجوانب الإستراتيجية للمؤسسة التي تسمح لها بالنمو والاستمرار. ولقد استخدمت الإستبانة كأداة لجمع البيانات والمعلومات من عينة الدراسة، ولقد توصلت الدراسة إلى أن التكامل العمودي بمختلف أنواعه له دور وأهمية كبيرة في تحسين أداء المؤسسة، وأن المؤسسة تعتمد على التكامل العمودي الأمامي بالدرجة الأولى لتحسين أدائها يليه التكامل العمودي الخلفي.

الكلمات المفتاحية : التكامل العمودي الخلفي؛ التكامل العمودي الأمامي؛ أداء المؤسسة.

تصنيف JEL : L22 ، L29.

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1. Introduction :

In fact, the vertical integration strategy is considered one of the most important strategies that better improve the company. This is because the companies, nowadays, are in a highly competitive environment. It is clear that the vertical integration is a significant element in the competitive markets since it affects both the costs and the sales either through the rear vertical integration by controlling the requirements of the production process or through the front vertical integration by controlling distribution channels, respectively.

The problem of the study:

Based on what we mentioned before, we can state the problem of the study as follows:

What is the role of the vertical integration strategy in improving the Brandt Company Performance?

And in order to deeply analyse this main problem, we aroused these important secondary questions:

- **What is the vertical integration and what are its types?**
- **Why is the vertical integration strategy used by a company?**

The Study Hypothesis:

Attempting to answer the main and secondary questions above, we have set the following hypotheses:

- **The main hypothesis:**

The vertical integration doesn't contribute in improving the Brandt Company Performance?

- **The minor hypotheses :**

There are two hypotheses are embedded in the main one:

- The Rear vertical integration doesn't have any role in improving the Brandt Company performance.
- The front vertical integration doesn't contribute in improving the Brandt Company performance?

The purpose of the study:

To be clear, the present study basically aims at reaching several goals which can be summarized as follows:

- Defining the concept of the vertical integration and the performance of the company.

- Understanding which type of the vertical integration is important in improving the Brandt company performance.

The methodology of the study:

In the present study, we focused on the descriptive and analytical method since it is the most suitable for such topics. To do so, we started to collect data from various sources and references in order to have a clear image on the investigated phenomenon. Also, we have come to analyse the results related to the field study and the hypotheses testing.

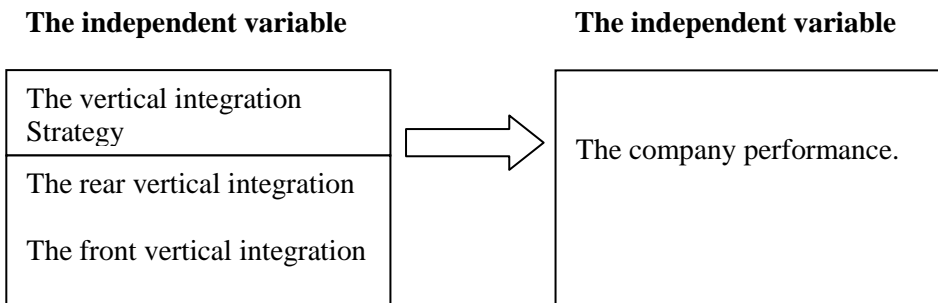
The tool of the study :

Our study focused primarily on the questionnaire as a tool for collecting data. This included two parts. In the first part, there are questions for comprehending the contribution of the rear vertical integration in improving the company performance. The second part discusses the contribution of front vertical integration in improving the company Performance.

The model of the study:

In the present study, the variables are shown in the figure below:

Fig.1: The model of the study.



Source: by the researcher.

2. The theoretical framework of the study :

2.1. Vertical integration :

a. Vertical integration definition:

Vertical integration refers to the process in which several steps in the production and/or distribution of a product or service are controlled by a single company or entity, in order to increase that company's or entity's power in the marketplace. Vertically integrating, forward or backward, makes strategic sense only if it strengthens a company's position via either cost reduction or creation of a differentiation-based advantage (Julius Ochieng, 2008, p 01).

The concept of vertical integration has taken several meanings in the literature with a common idea that the company sometimes chooses to internalize certain operations instead of resorting to an external stakeholder. This integration occurs if the structure includes two stages of production so that all of the upstream stage production is used as input to the downstream stage and all of the downstream stage requirements are provided by the upstream stage (Hamdaoui, Bouayad, 2019, p 61).

The vertical integration can be defined as one of the strategies related to the firm's growth. In fact, it is based on the idea that the company does not engage only in one single manufacturing process. The integration can be backward which means that a company would expand towards its supply sources of the raw materials needed for the production. The integration can be also forward which means that the company would control the distribution of the product which flow to the customers.

b.Types of vertical integration :

There are two types of vertical integration:

- **Rear vertical Integration:**

Is a business model whereby a company takes direct control of how its products are supplied. For example, when a firm buys another company previously supplied its raw material. That is, setting up of another company or creating a subsidiary such as agricultural farms to supply raw materials input for a main company or its group is a typical example of rear integration. It is common to see that business entities both big and small make efforts towards controlling their production input most especially raw materials (Olanrewaju,2016, p 41).

- **Front vertical Integration:**

This is direct opposite of rear integration and it is very common for corporations to acquire their supply chains vendors or create facilities

for the distribution of their products. This process of acquiring existing supplier or creating own distribution chain is referred to as front integration. The process of front integration involves integrating the supply chain within the corporate family.

It is not unusual for firms to distribute or control its final products distribution to the final consumer. While firms like breweries and bottling companies partially control their distribution channels at least to major distributors and encourages these distributors through commission on sales and other incentives, some partake in direct selling of their product to final consumers. Whether complete or partial control of distribution of products to either major distributors or involved in direct selling to final consumers it is regarded as front integration (Olanrewaju, 2016, p 42, 43).

2.2. Company performance :

a. Company performance definition :

Performance is difficult to define, but it can have at least three meanings or connotations (Dobrin and others, 2012, p 311):

- a successful outcome of an action or the action itself;
- performance shows the ability to move, thanks to the constant efforts;
- His word performance is the carrier of an ideology of progress, effort, always make better.

Performance in the enterprise is what contributes to improving cost-value couple and not just what helps to reduce the cost or increase the value". The first stage of the "translation" of the costvalue couple in concrete "pilotable" elements is to describe in global terms how the enterprise creates and will create value. It is, therefore, about defining "value" in the view of future developments. To design the value of tomorrow is to define a strategy. The first stage is therefore to translate the cost-value couple in strategic objectives. The above definition of performance can be translated into another equivalent definition: "Performance in the enterprise represents all that contributes to the achievement of strategic objectives". For the enterprise, performance is only what improves the cost-value couple, which is what contributes to value creation. A company is efficient if it has the ability to create economic value added, that is, a positive value after the remuneration of all factors, including equity (Iuliana, Maria, 2016, p 181).

Company performance is common that the performance is realized when the firm makes use of all the available resources in order to reach the goals and would be sustainable and prosperous in a highly competitive environment.

b. The factors that affect the performance:

There are many factors that, either positively or negatively, affect the performance, among which:

- **Motivation:** Motivating the company's employees enables it to reach the goals and accordingly realize a better performance.
- **Skills:** This includes the imitation or simulation skills, projection skills and innovation skills. All of these skills are important and the most significant ones are innovation skills because they have a great impact on the firm's performance.
- **Training:** Training is considered as an investment in human resources. Thus, it would improve the firm's performance when the employees learned more and developed different techniques required in their jobs and in coordinating the tasks and missions. In addition to that, training helps also the communication and information process.
- **Economical factors:** Economical factors have the greatest impact on firm's performance. These factors consist of general ones like the state's economical approach or philosophy, the averages of the economical growth and the averages of the profit prices inflation. There are also sectoral factors like the availability of the raw materials, the labour and the market structure.
- **Technological factors:** These factors are due to the changes and advancements caused by the technology. The scientific knowledge and the technological inventions are among those factors. Thus, technological factors strongly affect the the firm's performance.

Based on what we've previously seen, we can say that the performance is a series of qualitative and quantitative variables dependent significance which are either approximately controlled or uncontrolled by the company. However, these factors or variables differ in how they affect the company performance. the vertical integration is, then, considered as one of those variables.

3. The field study:

3.1. The presentation of the company concerned with the study:

Brandt company is a private shares limited firm. It is a branch of the Cevital group. It came into service in 2014. Its head office is located in Hydra in Algiers ,ALGERIA and its industrial complex is situated in the town of Guidjel in the province of Setif , eastern Algeria.

Further , this company is specialised in manufacturing and composing the home appliances and electronic devices to meet the needs of both the local and the international markets.

3.2. The study community:

The study community includes all the working staff in the company, 150 employees, from whom a random sample of 40 employees has been chosen. Than, we analysed 30 questionnaires using the SPSS program. Moreover, other statistic tools have been utilized in testing hypotheses and finding out the results.

3.3. The reliability of the study:

The values of the reliability coefficient of this study tool are shown in the following table :

Table 1 : the values of reliability of the study.

<i>Part of the study</i>	<i>The coefficient of the reliability</i>
<i>The rear vertical integration and the Brandt company performance.</i>	0.626
<i>The front vertical integration and the Brandt company performance.</i>	0.627
<i>Totality</i>	0.762

Source: by the researcher, based on the data collected from the questionnaire and according to the SPSS results.

The total coefficient of the reliability of the present study is 0.762 which is considered high. So, it is suitable for achieving the goals of the study. Consequently, the questionnaire results can be reliably applied on the study sample.

3.4. The analysis of the data related to the role of the vertical integration in improving the Brandt company performance :
a. Analysing sections of the rear vertical integration and the company performance:

Table 2 : The role of the rear vertical integration in improving the Brandt company performance.

<i>N°</i>	<i>Statements</i>	<i>Arithmetical average</i>	<i>Standard deviation</i>	<i>Estimation degree</i>
01	<i>The company seeks more good and convenient raw materials in order to increase its market share .</i>	3.87	0.94	High
02	<i>The company transports the raw materials by its own vehicles instead of depending on other transportation firms in order to minimise costs.</i>	3.83	1.02	High
03	<i>The company looks for controlling its own incomes because of the different competitors. So, it increases its market share.</i>	4.00	0.59	High
04	<i>The company limits the negotiating force of the strong suppliers to buy some of them so that it minimises the costs .</i>	3.30	0.92	Medium
05	<i>The company's control over the supply sources and the production needs leads to guaranties in supplying and receiving and consequently minimising the costs.</i>	3.97	0.56	High
06	<i>The high gross margins got by the suppliers pushes the company to boost its productive operations.</i>	3.57	0.86	High

And, hence, it increases its profits.

07	<i>The company looks for controlling its inputs (entries) to decrease its medium stocks and consequently it decreases the costs of its ultimate products.</i>	3.87	0.78	High
08	<i>As the firm establishes complementary branches in order to avoid greedy behaviour of some suppliers and, hence, the costs are minimized.</i>	4.17	0.79	High
09	<i>The firm provides a self protection against the price rising of its inputs. This makes its profits greater.</i>	4.00	0.69	High
<i>The Total Arithmetical Average</i>		3.84	0.79	High

Source: by the researcher, based on the data collected from the questionnaire and according to the SPSS results.

According to the table above, it is shown that the general average of the role of the rear vertical integration in improving the Brandt company performance is 3.84. This degree is placed in the fourth point of the Likert five points scale [4.20 - 3.41], which is the category indicating that the agreement is, evidently, high. This makes it clear that the sample individuals agree, to a far extent, that the rear vertical integration contributes in improving the Brandt company performance.

As for the statements in which the agreement of the individuals is high are ranked as follows:

- « The firm establishes complementary branches in order to avoid greedy behaviour of some suppliers and, hence, minimizing the costs.», with an arithmetical average of 4.17 and standard deviation of 0.79. This shows that the company and its decision makers want to minimise the costs and properly exploit the available resources to improve the company performance and its competitiveness as well.

- «The company looks for controlling its own incomes because of the different competitors. So, it increases its market share.», with an arithmetical average of 4.00 and standard deviation of 0.59. This

implies that the firm is always trying to lower the prices of its products to preserve its market share.

- The one that ranked third is « The company control over the supply sources and the production needs leads to guaranties in supplying and receiving and, consequently, minimising the costs. », with an arithmetical average of 3.97 and standard deviation of 0.56. This indicates that the company attempts to lower the costs because it is acting in a very dynamic industry and in a fully competitive market.

- «The company looks for controlling its inputs (entries) to decrease its medium stocks and, consequently, it decreases the costs of its ultimate products.», having an arithmetical average of 3.87 and standard deviation of 0.78. This indicates that the company is attempting to abandon medium stocks. This enables it to lower the costs and reach the goals.

- «The company seeks more good raw materials in order to increase its market share .»,with an arithmetical average of 3.87 and standard deviation of 0.94. This ensures that the company's products have high quality, which enables it to compete its rivals.

- «The company transports the raw materials by its own vehicles instead of depending on other transportation firms in order to minimise costs.», with an arithmetical average of 3.83 and standard deviation of 1.02. This indicates that the company is taking the transportation costs into account because they are important in making its pricing policy. As a result, the firm can fulfil or realise the rear vertical integration.

- «The high gross margins got by the suppliers pushes the company to boost its productive operations and, hence, it increases its profits.» having an arithmetical average of 3.57 and standard deviation of 0.86. This emphasizes the company's great concern with making the prices of its products low and satisfying for the customers.

For the statements in which the agreement of the individuals is medium are ranked as follows:

- «The company limits the negotiating force of the strong suppliers to buy some of them so that it minimises the costs.», with an arithmetical average of 3.30 and standard deviation of 0.92. This implies that the company gives importance to the power of negotiating the suppliers especially when the products they possess are necessary for its production processes.

b. Analysing sections of the front vertical integration and the Brandt company performance:

Table 3 : The role of the front vertical integration in improving the Brandt company performance.

N^o	Statements	Arithmetical average	Standard deviation	Estimation degree
01	<i>The company delivers its products directly for the customer in order to lower the prices compared to its competitors and, thus, get more profits.</i>	4.47	0.68	Very high
02	<i>Since the distributors are few and less qualified, the company distributes its products by itself so that it minimises the marketing costs.</i>	3.57	1.19	High
03	<i>The company possesses enough capital and human resources to control the distribution channels. So, its market share is increased.</i>	4.23	0.73	Very high
04	<i>The company distributes its products by itself so that it makes the control easier. This results in improving the firm performance.</i>	4.27	0.64	Very high
05	<i>The company has many distribution centres across the country to facilitate the delivery of the products to the clients with a fast service. This helps it widen its market share.</i>	4.53	0.51	Very high
06	<i>The company's sales centers and markets abroad contribute in</i>	4.53	0.57	Very High

increasing its market share.

07	<i>The company tries to control distribution channels in order to know more about the customers' needs and preferences through direct contact with them .This results in growing its market share.</i>	4.53	0.57	Very High
08	<i>When the firm reaches new distribution channels and enters new markets,it will realize growth in its market share.</i>	4.47	0.57	Very high
<i>The Total Arithmetical Average</i>		4.33	0.68	Very high

Source: by the researcher, based on the data collected from the questionnaire and according to the SPSS results.

The table above points out that the general average of the role of the front vertical integration in improving the Brandt Company Performance has reached **4.33**. This degree is placed in the fifth point of the Likert - five-points scale [5 - 4.21] , which is the category indicating that the agreement is extremely high. Obviously, it is understood that the sample individuals agree, to a very far extent, that the front vertical integration has a great role in improving the Brandt company performance.

Still , the table has shown also that the averages of the role of the front vertical integration in improving the Brandt company performance are between 3.57 and 4.53. In other words, there are different views and degrees in agreements which are either high or very high.

For the statements in which the agreement of the individuals is very high are ranked as follows:

- «The company has many distribution centres across the country to facilitate the delivery of the products to the clients with a fast service. This helps it widen its market share.», with an arithmetical average of 4.53 and standard deviation of 0.51. This indicates that the company is

looking for new ways of distribution which distinguish it from its rivals and enable it to reach its clients. By this, its market share would be larger.

- « The company's sales centres and markets abroad contribute in increasing its market share.» having an arithmetical average of 4.53 and standard deviation of 0.57. This shows that the company is seeking new markets and, hence, its products would spread more and more.

- « The company tries to control distribution channels in order to know more about the customers' needs and preferences through direct contact with them .This results in growing its market share.», with an arithmetical average of 4.53 and standard deviation of 0.57. This indicates that the company is trying to obtain a better competitive position through highlighting its mark and its image.

- « When the firm reaches new distribution channels and enters new markets, it will realize growth in its market share.», with an arithmetical average of 4.47 and standard deviation of 0.57. It shows that the company intend to expand its activity.

- «The company delivers its products directly for the customer in order to lower the prices compared to its competitors and ,thus, get more profits .» ,with an arithmetical average of 4.47 and standard deviation of 0.68. It points out that the company's attempt to reduce the prices through lowering gross margins aiming at expanding its market share.

- «The company distributes its products by itself so that it makes the control easier .This results in improving the firm performance .»,with an arithmetical average of 4.27 and standard deviation of 0.64. It shows that the company attempts to keep good and ongoing relations with its customers, organize the production operations and, also, control the demand.

- «The company possesses enough capital and human resources to control the distribution channels. So, its market share is increased.» with an arithmetical average of 4.23 and standard deviation of 0.73. This implies that the company can engage in new selling and distribution activities in order to ensure that the products are reachable to customers in the right time and with the right quantity . This is to have a better control over the different distribution and marketing processes.

For the one statement in which the agreement of the individuals is high is the following :

- « Since the distributors are few and less qualified, the company distributes its products so that it minimises the marketing costs.», with an arithmetical average of 3.57 and standard deviation of 1.19. This indicates that the company tends to lower the prices through reducing the gross margin which would be got by the intermediates.

3.5. Testing the study hypothesis :

In order to test the hypotheses of the present study, we have used T test (One sample Test). If the calculated T is greater than table T, we will reject the main hypothesis and accept the alternative one. But, If the calculated T is less than table T, we will reject the alternative hypothesis and accept the main one.

As far as testing the main hypothesis is concerned, we should first test the minor hypotheses. Then, we would consider the total test of this hypothesis as the following:

a. Testing the first minor hypothesis:

The first minor hypothesis states the following :

- H_0 : The rear vertical integration doesn't contribute in improving the Brandt company performance.

The results of testing this hypothesis are shown in the following table :

Table 4 : The results of testing *T* for the contribution of the rear vertical integration in improving the Brandt company performance.

<i>Section</i>	<i>Calculated T value</i>	<i>Table T value</i>	<i>Degree of freedom</i>	<i>Significance Level</i>	<i>Decision</i>
<i>Statements of the first minor hypothesis</i>	35.194	1.697	29	0.00	Significant

Source: by the researcher, based on the data collected from the questionnaire and according to the SPSS results.

According to the table above, we have noticed that the *T* calculated value is 35.194. *T* is greater than table *T*, which is equal to 1.697 and the Significance level is 0.00 which is less than 0.05. For this purpose,

based on the assumptions, we will reject the main hypothesis and accept the alternative one. And this implies that the rear vertical integration contributes in improving the Brandt company performance.

b. Testing the second minor hypothesis:

The second minor hypothesis is stating that:

- H_0 : The front vertical integration has no in role in improving the Brandt company Performance.

The results of testing this hypothesis are shown in the following table :

Table 5 : The results of testing T for the contribution of the front vertical integration in improving the Brandt company performance.

<i>Section</i>	<i>Calculated T value</i>	<i>Table T value</i>	<i>Degree of freedom</i>	<i>Significance Level</i>	<i>Decision</i>
<i>Statements of the second minor hypothesis</i>	56.348	1.697	29	0.00	Significant

Source: by the researcher, based on the data collected from the questionnaire and according to the SPSS results.

From the preceding table, we have noticed that the calculated T value is 56.348. It is greater than table T, which is equal to 1.697 and the significance level is 0.00 which is less than 0.05. In this case, based on the assumptions, we will reject the main hypothesis and accept the alternative one. And this implies that the front vertical integration contributes in improving the Brandt company performance.

c. The results of testing the main hypothesis:

The main hypothesis states the following :

- H_0 : The vertical integration doesn't contribute in improving the Brandt company performance.

The results of testing this hypothesis are presented in the following table :

Table 6 : *The results of testing T for the contribution of the vertical integration in improving the Brandt company performance.*

<i>Section</i>	<i>Calculated T value</i>	<i>Table T value</i>	<i>Degree of freedom</i>	<i>Significance Level</i>	<i>Decision</i>
<i>The main hypothesis</i>	45.908	1.697	29	0.00	Significant

Source: by the researcher, based on the data collected from the questionnaire and according to the SPSS results.

According to the table above, we have seen that the calculated T value is 45.908. T is greater than table T, which is equal to 1.697 and the significance level is 0.00 which is less than 0.05. In such a way, based on the assumptions, we shall reject the main hypothesis and accept the alternative one. And this, truly, implies that the vertical integration is one of the most supporting and promoting strategy in the improvement of the Brandt company performance.

4. Conclusion :

In the present study , we have attempted to understand the role of the vertical integration strategy in improving the performance of the Brandt company . Initially, the problem of the study focused on highlighting the the vertical integration, with its different types, front or rear, in improving the performance of the Brandt Company. As a matter of fact, The vertical integration is one of the main options that help the firms to be prosperous and sustainable. It allows them to flourish and become excellent competitors.

- Moreover, the obtained results have pointed out that the vertical integration is one of strategies used for the development and the expansion of the companies. This can be through internal growth. It can be done by making new complementary branches or integrating with other firms.
- The rear vertical integration is one type of the the vertical integration. In order for the firm to get all the commodities and requirements needed for its manufacturing process, it would

have an access to the suppliers' world. In other words, the firms can acquire those materials with the sought characteristics and the quality and on the appropriate delivery time they want.

- The front vertical integration is another type of the vertical integration. It is the company's activities in selling and distributing its products. In this way, company can have a direct contact with the ultimate customer.
- Actually, the Brandt company relies largely on the rear vertical integration in the improvement of its performance. This is untrue with the first minor hypothesis.
- Again, the Brandt company relies largely on the front vertical integration in the improvement of its performance and this is untrue with the second minor hypothesis.
- The company focuses fundamentally on the the front vertical integration in improving its performance. It also emphasizes the rear vertical integration which comes in the second respect.
- To conclude, it is worth noting that the vertical integration, with its types discussed here, has a significant role in improving the Brandt company performance. Accordingly, this denies the main hypothesis.

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