Revista de Educação e Pesquisa em Contabilidade
Journal of Education and Research in Accounting
Revista de Educación e Investigación en Contabilidad

Quarterly journal, digital and free published by Brazilian Academy of Science in Accounting

ISSN 1981-8610

REPeC, Brasília, v. 8, n. 2, art. 6, p. 206-220, Apr./Jun. 2014
Available online at *www.repec.org.br*

Teaching Case
JBA Cosmetics Ltd.: Maintain Or Close The West store?

Abstract
The objective in this case is to illustrate the use of relevant cost concepts and techniques for the analysis of long-term policy decisions. It was conceived for discussion in the subjects Management Accounting or Cost Accounting in undergraduate and graduate *lato sensu* programs in Accountancy, Business Administration and Production Engineering. JBA Cosmetics Ltd. Is a small-sized company specialized in the sale of female cosmetics. In 2010, it had three stores, North, South and West. The latter had been presenting unsatisfactory results, despite the growth in the cosmetics sector. Uncomfortable with this situation, the partners had to decide on whether to close the loss-making store or not. Therefore, they had to compare the store's revenues and attributable costs – variable costs, divisible fixed costs and indivisible traceable costs. The determination of the attributable costs, as the students will be able to perceive when answering the proposed questions, involves a considerable degree of subjectivity. These questions also suggest qualitative factors that should not be ignored in this type of decision. It can be argued that the uncertainties involved in decisions, like the closure of a store, are better conceived through case analysis than through problem solving.

Key words: long-term policy decisions, attributable costs, management reports per segment.

Moacir Sancovschi
Doctor of Science.in Business Administration from COPPEAD/UFRJ and Professor at the Accounting Department and the Department of Graduate Programs in Accounting at FACC/UFRJ. **Contact:** Av Pasteur, 250, Departamento de Contabilidade, Praia Vermelha, Urca, Rio de Janeiro-RJ CEP: 22290-240.
E-mail: *msancov@facc.ufrj.br*

Marcus Vinicius Melo Moraes
Master Degree in Accounting Sciences from UFRJ and Assistant-Professor at the Business Administration and Accounting Sciences College at Rio de Janeiro Federal University (FACC/UFRJ) and Auditor with the Brazilian Revenue Services. **Contact:** Av Pasteur, 250, Departamento de Contabilidade, Praia Vermelha, Urca, Rio de Janeiro-RJ CEP: 22290-240.
E-mail: *mvmmoraes@facc.ufrj.br*

Lidiano de Jesus Santos
Master Degree in Accounting Sciences from UFRJ and Accountant with the BNDES – *Banco Nacional de Desenvolvimento Econômico e Social* (National Economic and Social Development Bank). **Contact:** Av. Republica do Chile, 100 – Centro – Rio de Janeiro – RJ. CEP: 200331-917.
E-mail: *lidianojesus@bol.com.br*

Published in Portuguese, English and Spanish. Original Version in Portuguese.

Received in 9/25/2013. Ask to Revise on 12/31/2013. Resubmitted on 2/22/2014. Accepted on 3/17/2014 by Dr. Valcemiro Nossa (Editor). Published on 6/30/2014. Organization responsible for the journal: Abracicon.

1. Introduction

JBA Cosmetics Ltd. is a small company specialized in the sale of female cosmetics. In 2010, it had three stores, North, South and West. The latter had been presenting unsatisfactory results, despite the growth in the cosmetics sector. Uncomfortable with this situation, the partners had to decide on whether to close the loss-making store or not. Thus, they agreed to hold a meeting at the start of 2011 to put an end to this matter.

2. The Meeting

Back to work after the end-of-year holidays in 2010, João and Alice met at the office of the North store and were carefully listening to Bruno's explanations about the performance of the West store of JBA Cosmetics Ltd.

In 2010, JBA had three stores: North, South and West. Among the three, the West store showed the worst performance. Its financial results, which had never been as good as the others, had recently turned negative. Therefore, the partners decided to assess the merit of closing it.

Bruno was clearly favorable to closing the store and justified his position based on the results determined in 2010 for the company and for each of the stores (Table 1). In that report, the store had again shown a loss.

Table 1

Income Statement for the year ended on December 31st 2010

	Total	Loja Oeste	Loja Sul	Loja Norte
Sales	12,000,000	2,880,000	4,800,000	4,320,000
Cost of Products Sold	6,628,800	1,612,800	2,640,000	2,376,000
Gross Income	5,371,200	1,267,200	2,160,000	1,944,000
Operational Expenses:				
Total Sales Expenses	3,268,000	925,600	1,260,000	1,082,400
Total Administrative Expenses	1,608,000	446,000	632,800	529,200
Total Expenses	4,876,000	1,371,600	1,892,800	1,611,600
Net Operating Profit (Loss)	495,200	(104,400)	267,200	332,400

Source: Garrison et al. (2007). Adapted by the authors.

Alice, who understood little about Accounting, weighted that everyone had worked very hard to set up the West store, and that closing the store would be a precipitated decision, interrupting a trajectory that had been producing increasing gains for the three partners.

João, a little more pragmatic, observed that the three stores' gross percentage margin was practically the same, and that the problem could be related to the West store's high expenses or its revenues. As the revenues had been growing according to expectations, he focused on the expenses and asked Bruno what he thought of the store manager's work. Bruno answered that the manager had an excellent temperament, that he was a diligent professional and that there were no signs of any negligence in his expense control.

Next, João asked why the expenses of the West store were that high. In fact, he wanted to know by how much JBA's expenses would drop if the store were closed. Would the expense reduction be higher than the revenues they would not gain as a result of closing the store?

Bruno felt forced to admit that the income statement he presented did not permit answering that question, but concluded that it was undeniably important and had to be answered before making any decision on the West store.

Everyone agreed to interrupt the meeting for Bruno to collect evidence on the contribution of the West store to the results of JBA.

3. Company History

JBA Cosmetics Ltd. was founded in 1998 by João Alves, Bruno Pacheco and Alice Carvalho. The name JBA Cosmetics was chosen not only because it contained the three partners' initials, but also thinking about future publicity campaigns, in which the use of JBA's products would be associated with youth, beauty and attraction, adopting the slogan "use JBA and stay Young, Beautiful and Attractive" (*Jovem*, *Bonita* and *Atraente* in Portuguese).

The company started its activities by opening a large store in a street in the North of Rio de Janeiro. As the products of JBA gained market space, their turnover and profit margin increased. Part of these resources was applied to the expansion of the company four years later, by opening another store in the South of Rio de Janeiro.

Then, the partners decided that they would periodically do market research and identify neighborhoods in which the cosmetics segment was not saturated in order to safely found new stores. In addition, after inaugurating a store, they would monitor the clients' satisfaction and the financial revenues to guarantee the profitable consolidation of the new establishment. After consolidating the new commercial point, the process would restart to reach other locations in Rio de Janeiro, employing part of the company profits for this end.

In that context, in 2006, after the successful implementation of the store in the South, the partners decided to open yet another store in the West of Rio de Janeiro. Despite the tight competition in the cosmetics market in that region, their analyses suggested that this location had excellent potential for the sale of these products.

Interested in permitting the expansion without putting too hard a strain on the company's cash flow, the partners decided to rent a store, lease the furniture for use in the facilities and supply the store with products rearranged from the other two stores. Thus, at the end of 2006, the third store of JBA Cosmetics Ltd. was inaugurated in the West of Rio de Janeiro.

João Alves was the partner responsible for managing the company marketing. His main concern was with client satisfaction and the acceptance of the products JBA Cosmetics offered. In addition, he controlled the inventories to prevent overstocking at times of low activity levels, or insufficient supplies at times of great demand for the company's products.

Although João could me found more easily at the North store, he visited the other two stores at least twice per week to have contact with the clients and assess whether they were satisfied with the products and service. He also liked to stay close to the employees to discover their opinions about the products sold, the clients' preferences and the work conditions in the company.

Bruno Pacheco was the partner responsible for financial management. He took care of the preparation, analysis and interpretation of the financial reports; of all operations with banks and credit card operators; and of the clients' receivables and payments to suppliers.

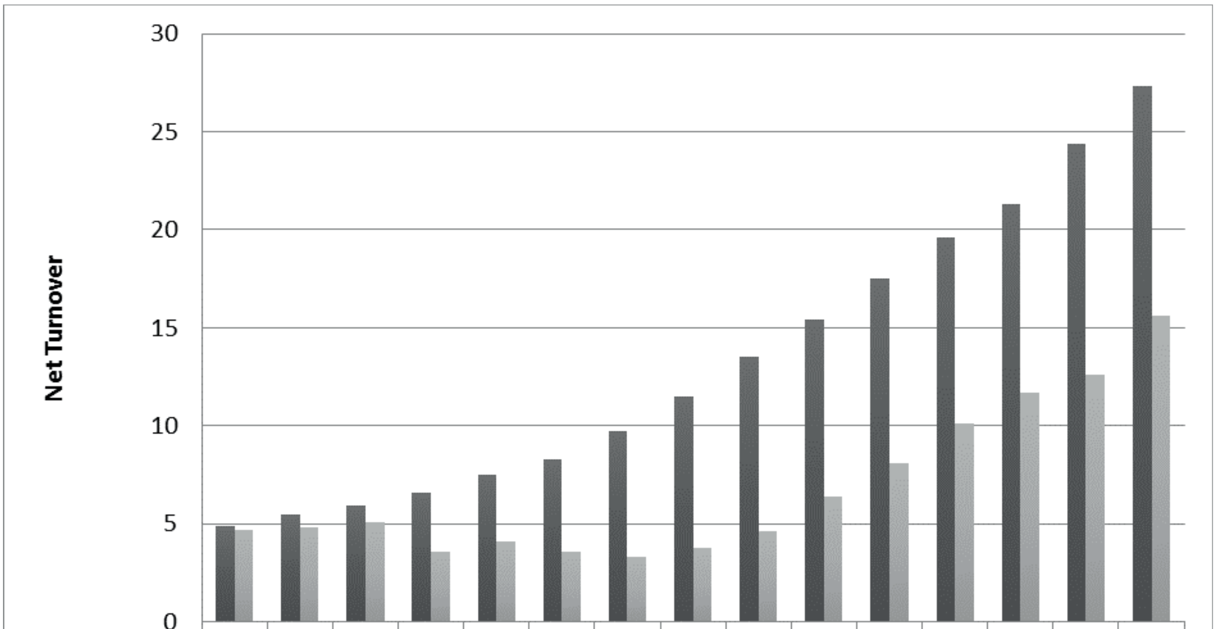
Alice Carvalho was the administrative manager, mainly responsible for the selection, hiring, training and, when necessary, for rearranging employees from the central office and the stores.

4. Characteristics Of The Cosmetics Market

In 2010, the national cosmetics market was widely expanding. In recent years, the supply of high-quality Brazilian products for the female public of all income levels had significantly increased. And the growing sales were demonstrating that this public truly valued the national products.

Specialists affirmed that the cosmetics market was a good thermometer for what was happening to the population's income. As a result of the better income distribution, the income patterns were changing. What seemed expensive and of difficult access for the low-income consumers stopped being so, and products that used to be considered superfluous started to be purchased regularly.

According to data from the *Associação Brasileira da Indústria de Higiene Pessoal, Perfumaria e Cosméticos* (Abihpec), the Brazilian industry of personal hygiene, perfumes and cosmetics presented a deflated mean growth, corresponding to 10.5% in the last 15 years, from a net sales value of R$4.9 billion in 1996 to R$27.3 billion in 2010 (Figure 1).



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
R$ Billion	4,9	5,5	5,9	6,6	7,5	8,3	9,7	11,5	13,5	15,4	17,5	19,6	21,3	24,4	27,3
US$ Billion	4,7	4,8	5,1	3,6	4,1	3,6	3,3	3,8	4,6	6,4	8,1	10,1	11,7	12,6	15,6

Figure 1. Net Sales of the Personal Hygiene, Perfumes and Cosmetics Industry.

Source: Associação Brasileira da Indústria de Higiene Pessoal, Perfumaria e Cosméticos (Abihpec).

In 2010, in Brazil, 1,659 companies were active in the personal hygiene, perfumes and cosmetics product market, including 20 large companies, with net revenues of more than R$100 million, representing 73% of the sector's revenues.

João and Alice's main fear was to close the West store and thus lose the chance of benefiting from the excellent period in the sector. In their opinion, reconsidering this store's operations was preferable to closing it. Bruno, however, thought that keeping the store open was a decision that would end up expense for the three of them.

Their discussions started getting more frequent and increasingly bitter, even threatening their great friendship and the stability of their partnership. Therefore, they concluded that, for the good of all and the company, they urgently needed to meet and decide whether the store would be kept open or closed. This meeting was scheduled for the start of 2011, soon after the end-of-year holidays.

5. Financial Situation Of JBA Cosmetics Ltd.

After the meeting with João and Alice, Bruno asked his staff to analyze the company expenses and classify them in two groups. The first should include the expenses that were clearly linked to each individual store and the second the expenses the three stores had in common.

Tables 2 and 3, prepared by Bruno's team, show the sales expenses and the administrative expenses JBA Cosmetics Ltd. incurred in 2010, respectively.

Table 2

Detailed sales expenses

Sales expenses	Total	West Store	South Store	North Store
Wages – sales staff	956,000	280,000	356,000	320,000
Direct propaganda	748,000	204,000	288,000	256,000
General propaganda	180,000	43,200	72,000	64,800
Store rent	1,200,000	340,000	480,000	380,000
Depreciation of store furniture	45,600		24,000	21,600
Rent of store furniture	18,400	18,400		
Wages – delivery staff	84,000	28,000	28,000	28,000
Depreciation of delivery vehicles	36,000	12,000	12,000	12,000
Total sales expenses	3,268,000	925,600	1,260,000	1,082,400

Source: Garrison et al. (2007). Adapted by the authors.

Table 3

Detailed administrative expenses

Administrative expenses	Total	Loja Oeste	Loja Sul	Loja Norte
Wages – store managers	244,000	48,000	120,000	76,000
Wages – central office staff	236,000	84,000	80,000	72,000
Insurance of furniture and inventories	100,000	30,000	36,000	34,000
Utilities	424,000	124,000	160,000	140,000
Social contributions	304,000	88,000	116,800	99,200
Central office expenses – others	300,000	72,000	120,000	108,000
Total administrative expenses	1,608,000	446,000	632,800	529,200

Source: Garrison et al. (2007). Adapted by the authors.

The general propaganda expenses shown in Table 2 and the expenses on central office staff wages and other expenses shown in Table 3 were common to the three stores and allocated according to the revenues.

Besides the information in Tables 2 and 3, the financial management staff added the following:

a) The rent contract of the building where the West store was located could be canceled at any time without any fine.
b) The furniture and utensils of the West store would be transferred to the other stores if it were closed.
c) The general manager of the West store would be transferred to the central office if the store were closed. She would gain a function for which a new employee would be hired anyway, who would gain R$44,000 per year. The manager would maintain her normal wages though, corresponding to R$48,000 per year. The other employees would be made redundant.
d) The company had a delivery team that attended to the three stores. One employee on this team could be made redundant if the West store were closed. His wages corresponded to R$16,000 per year. The delivery equipment would be used in the other stores. Although this equipment did not get worn out, it would become obsolete.
e) The social contributions paid by the company corresponded to 20% of the salaries.
f) One third of the insurance premium for the West store related to furniture and utensils.
g) The items "central office wages" and "central office expenses – others" were related to the general administration of JBA Cosmetics. If the West store were closed, one employee from the central office could be made redundant, due to the reduction in the general workload. His wages corresponded to R$24,000 per year.

6. Questions For Discussion

6.1 General Question

As the results verified for 2010 express the expected values for the subsequent years, do they help the managers of JBA Cosmetics to decide on whether or not to close down the West store?

6.2 Specific Questions

1. Which would be the reductions in the revenues and expenses of JBA if its partners decided to close down the West store? What would be the impact of this decision on JBA's profit?
2. Let us suppose that, if the West store were closed, at least a quarter of its sales would be transferred to the North store, due to the clients' strong fidelity to JBA Cosmetics. Let us also suppose that the North store would be able to absorb the estimated sales increase and that these additional sales would provide for the same gross percentage margin verified in the West store. What effect would these factors exert on the recommendation regarding the West store? Present all calculations used in the analysis of your decision.
3. What are the main non-financial aspects that should be considered in the decision to close or maintain the West store?

7. Teaching Notes

7.1 Educational Objectives

This case is based on exercise 13.18, proposed by Garrison, Noreen and Brewer (2007, pp. 519-520). Its objective is to illustrate the use of relevant cost concepts and techniques for the analysis of long-term policy decisions. It was conceived for use in the subjects Management Accounting or Cost Accounting in undergraduate and graduate *lato sensu* programs in Accountancy, Business Administration and Production Engineering.

7.2 Theoretical Framework

7.2.1 Relevant Costs For Decision Analysis

In the performance of their activities, managers frequently need to weigh options, make choices and decide. Jiambalvo (2009) affirms that, for this end, they need to compare the expected gains from the decisions (revenue increase or cost savings) with the resulting costs. This arouses concerns with identifying the relevant costs for decision analysis.

Jiambalvo (2009) teaches that, to analyze decisions, the costs need to be classified in two categories. The first includes the increasing costs – costs that vary with the decisions made and are therefore relevant for the decisions; the second comprises the sunk costs – costs already incurred, irreversible or that do not differ when comparing the options, and are therefore irrelevant for the decisions. The author concludes that, from the financial viewpoint, a desirable option provides greater expected gains than incremental costs. The sunk costs should not be included in the analyses.

The definition of incremental costs naturally arouses the doubt about its elements. And the answer Jiambalvo (2009) and other authors provide is that the elements will basically depend on the magnitude and time horizon of the decisions. The incremental costs of limited and/or short-term decisions (produce and sell an additional unit for immediate delivery, for example) only include variable costs. The incremental costs of long-term decisions (which entail substantial changes in company activities, even if in the short term) include incremental fixed as well as variable costs.

7.2.2 Another Version For The Same Concepts

Shillinglaw (1963) offers a very particular and interesting version for the question about relevant costs for decision analysis. According to him, there are three types of decisions and, for each, one appropriate analysis model. The first includes the short-term operational decisions. The relevant costs to analyze the decisions are the marginal costs, approached in practice by the mean variable costs. The second includes the investment decisions that impose spending in one or more periods to gain revenues in different future periods. Their analysis demands the use of discounted cash flow models. Finally, the third comprises the long-term policy decisions, which he calls quantitative policy decisions.

The long-term policy decisions, according to that author, involve continuous responses to recurring problems. They involve, for example, the establishment of delivery policies, discounts and the selection of clients. These decisions do not demand anticipated spending for the sake of future gains, such as short-term operational decisions, but require long-term commitments as well as investment decisions.

According to Shillinglaw (1963), the relevant costs to analyze the long-term political decisions are the attributable costs: "custos... que seriam evitados, em média, se um produto ou função fosse descontinuado completamente sem que houvesse mudança na estrutura de suporte da organização (p. 80)". They represent an attempt to put in practice the long-term marginal cost concept. The attributable costs include the short-term variable costs, the divisible fixed costs and the indivisible traceable costs.

The expression indivisible traceable costs properly expresses that these costs "can be determined, are probable and their origins can be investigated" (Michaellis/UOL) and, being indivisible and relevant, these costs eventually need to be allocated to the products or functions. In fact, Shillinglaw (1963) clarifies that, in some cases, even the divisible fixed costs need to be allocated.

Returning to the determination of attributable costs after some years, Shillinglaw (1982) commented that this demands the study of each indirect cost element in order to decide the extent to which it should be included in the product and service costs. The author admits that this is not an easy task and that the results will always be subject to criticism. Nevertheless, he is convinced that the relevance for the managers is a more defendable judgment criterion in this case than mathematical precision. After all, the attributable cost concept was conceived for management use and the managers can always question the logic underlying the cost figures they are provided with.

The JBA Cosmetics case intentionally presents the decision to maintain or close down the West store as a long-term policy decision. The readers should observe that the administrators assumed the long-term commitment to sell cosmetics through a store they opened in the West of Rio de Janeiro without any investment. And they will not need to make any investment to verify the benefits that may result from closing down the store. The store, furniture and equipment were hired and the products were transferred from the other stores. In addition, the rent contract allows the administrators to simply leave the building at any time, without any fine; and no mention whatsoever is made of indemnities due to employees that may be made redundant. Consequently, the financial analysis on whether to close down the store should compare the expected reduction in revenues with the costs attributable to the store.

Although very objective and clear, the paper by Shillinglaw (1963) is a theoretical essay that will very probably require substantial interpretation efforts from the students if they have to consult it in order to understand the attributable cost concept and apply it in the analysis case. Therefore, they should be offered more didactical texts, individually or complementary, that explain the attributable cost concept, and present examples that illustrate how they should be determined and used and, if possible, that comment on actual situations in which they were or could have been used. The subsequent sections summarize and assess the contents of three texts with these characteristics.

7.2.3 Cost Accounting Reaches The Service Industry

In a simple and direct article, Dearden (1978) describes a model to assess the profitability of products and service, which is very similar to the model proposed by Shillinglaw (1963). He defines the profitability of a product (or service) as the drop in profits if this product (or service) had not been manufactured and sold. To determine it, the author recommends comparing the revenues from selling the product (or service) with the costs that can only be attributed to it. According to him, these are the only relevant costs. The remaining costs, which he called joint costs, are considered irrelevant. Thus, he concludes that the relevant profitability measure of products or services is the extent to which they contribute to cover the joint costs and constitute the profit.

Dearden (1978) defines the costs that can only be attributed to one product or service as the costs that would be suppressed if these products or services were eliminated.

It should be highlighted that Dearden (1978) alerted in his arguments that the simplicity and clarify suggested in the definition of attributable costs are illusory. And he revealed that part of the attributable costs should be determined through allocations that involve some degree of subjectivity, but avoided exploring this matter in further detail.

One element missing in Dearden's text (1978) is the clarification that the model he proposes cannot be used when investments are involved. In that case, discounted cash flow methods will have to be used for the profitability analysis instead of the contribution margin, as he suggests.

7.2.4 Contribution Margin, Fixed Traceable Costs And Return On Investments

This part received the title of Chapter 18 in the book by Martins (2010), in which he proposes that there are fixed costs that neither can nor should be ignored in the profitability analysis of products and services. He calls these costs fixed traceable costs, and recommends the profitability assessment of products, services or operational units of companies based on two contribution margins. The first is obtained by the difference between the total revenues and variable costs, and measures the contribution of the revenue to cover the fixed costs and constitute the profit. The second is obtained by the difference between the first contribution margin and the fixed traceable costs (of products, services or operational units), and measures the contribution of the revenues to cover the fixed common costs and constitute the profits.

Martins (2010) clarifies that the relevant profitability measure of a product, service or operational unit is the second contribution margin, but is not concerned with explaining in what conditions it should be used.

Although the relevant profitability measure and the concepts used by Martins (2010) are very similar to the measures and concepts in the articles by Shillinglaw (1963) and Dearden (1978), the author does not discuss the need to allocate part of the costs for the long-term profitability assessment of products and services, signaling that one of the advantages of the model he proposes is that it is free from the bias that comes with indirect cost allocation.

7.2.5 Segment Reporting And Decentralization

Garrison et al. (2007)1 discuss the performance assessment of company segments and the decision to close them in two distinct chapters (12 and 13) and adopt an approach that is at the same time simple and technically correct. In fact, they reproduce the proposal by Shillinglaw (1963) in a very didactical form.

According to these authors, the segment margin is the appropriate profitability measure of a company segment (store, sales territory or client). It is determined as shown in Table 4.

1 In 2013, a more recent edition of these authors' book was issued (Garrisson, Noreen and Brewer (2013).

Table 4
Determination of Segment Margin

	Segment 1	Segment 2	Company
Sales Revenue	xxx	xxx	xxx
Minus Variable Costs	xxx	xxx	xxx
Contribution Margin	xxx	xxx	xxx
Minus Traceable Fixed Costs	xxx	xxx	xxx
Segment Margin	**xxx**	**xxx**	**xxx**
Minus Common Fixed Costs			xxx
Net Operating Income			xxx

Source: Suggested by Garrison et al. (2007) and adapted by the authors.

The contribution margin indicates the profit increase that results from variations in the activity volume (sales), and is particularly useful to analyze temporary uses of the capacity (short-term operational decisions), like in the case of attending to special orders (Garrison et al. (2007), p. 449).

The fixed costs traceable2 to a segment are fixed costs incurred because of the existence of the segment – if the segment had never existed, these costs would not have been incurred; and if the segment were eliminated, these costs would be suppressed. In a real situation, sometimes, it is difficult to know if a cost should be classified as traceable or not. In some cases, the determination of these costs will have to be based on allocations, with different degrees of subjectivity (Garrisson et al. (2013), p. 449/450).

The common fixed costs sustain the operations of more than one segment but are not traceable, on the whole or partially, to any of them. That is, these costs will not be eliminated by the exclusion of individual segments (Garrisson et al. (2013), p. 450). Hence, they are irrelevant to analyze the segment profitability.

The segment margin measures the extent to which it contributes to the coverage of common costs and profit formation and is "the best segment profitability measure in the long term" (Garrison et al. (2007), p. 451).

In Chapter 13 of the book, Garrison et al. (2007) clearly discuss the decision to eliminate a segment as a long-term political decision and indicate that the segment margin is the appropriate financial criterion to analyze that decision. They also conclude that this margin should be compared with the margins that would be obtained in more profitable options, in a clear allusion to the opportunity costs.

When considering Shillinglaw's model (1963), what is missing in the lessons by Garrison et al. (2007) is to show that the segment margin should not be used to analyze decisions involving investments.

7.3 Suggestion For A Teaching Plan

This case was projected for use in a 90-minute session, in order to discuss relevant cost concepts and techniques to analyze long-term political decisions. The session should preferably involve a class that is already familiar with basic cost topics, as the discussion demands theoretical knowledge on cost concepts and classifications and about incremental analysis.

To prevent the students from using the session to express their personal opinions about the case (for example "I think that…") or try to focus only on the accounts that need to be made, this case should be delivered in advance for them to analyze it individually and consult the bibliography indicated at the end of this document. It is also interesting for the teacher to encourage the students to look for recent news

2 It is important to highlight that professor Antonio Zoratto Sanvicente, translator of the book by Garrison, Noreen and Brewer (2007), translated the expression traceable fixed costs as custos fixos vinculáveis. This option preserves the concept's original meaning and, in addition, properly establishes its proximity with the attributable costs concept proposed by Shillinglaw (1963), translated as custos atribuíveis here.

on commercial companies that were obliged to close down stores, to observe what factors led them to this situation and, if possible, how their administrators made the decision to close down the units.

For the sake of an example, the article published by Naiditch (2006) in the magazine Exame shows that, in 2006, the administrators of Casas Bahia had to reconsider their priorities, close down stores and fire employees. According to the journalist, the decision was motivated by the fact that the expansion during the immediately preceding period had not been accomplished with due caution. Stores of sizes appropriate to large centers were opened in small interior cities, at a time when the retraction in these cities' economies reduced commercial sales in general and increased the default rates, compromising the profitability of Casas Bahia and obliging its administrators to reconsider their expansion plans.

The first 35 minutes of the session can serve to discuss the case in small groups. After this phase, the teacher can use the results reached to built the case analysis with the class, including the necessary clarifications and corrections.

The classroom discussion should start with a generic question to the class: "How many of you think that the West store should be closed?". Thus, the students will be encouraged to defend their decisions more strongly.

After verifying how many students are favorable to the closure, the question could be raised what would make the administrators of a chain consider closing one of the stores at a time when sales in the sector are increasing.

Once these questions have been sufficiently explore, the teachers can show the information in Table 1, indicate the loss made in the West store and ask whether closing down the store will make the company profits increase by R$104,400.00 (loss made in the West store). The answers will show the limitations of the information provided in Table 1 and will make the students perceive that the profits informed for the stores do not measure their individual contribution to the company profits. Thus, the next step is to question how the each store's contribution to the company can be measured. That is the opportunity to use specific question No. 1 (Which would be the reductions in the revenues and expenses of JBA if its partners decided to close down the West store? What would be the impact of this decision on JBA's profit?) to make the students reflect on the attributable profit or segment margin concept.

It is highlighted that Dearden (1978) adopted this logic to justify the classification of total costs into exclusive costs (direct or solely attributable) or joint costs and use it to verify the direct margin which, according to him, is the appropriate measure of the profitability of products or services.

Specific question No. 2 can be used, at the teachers' discretion, to comment that accounting is unable to correctly measure the results of interdependent units, like in the case of the West and North stores. In view of evidence that clients purchase at both stores, it is expected that the reduction in revenues due to the close of the West store will be inferior to the revenues of the store shown in Table 1.

Specific question No. 3 was proposed to remind that financial information is important but should be used with discernment and consideration.

To conclude the session, the teachers should briefly assess the activities, indicate the case objectives, the main concepts and techniques used and the main conclusions reached.

7.3.1 Analysis Of Possible Alternative Decisions On The Case

The case of JBA Cosmetics puts the students in contact with a situation in which they need to analyze whether to close or maintain one of the company stores. The information provided was selected on purpose for this decision to have the characteristics of a long-term policy decision, as defined by Shillinglaw (1963). Thus, the assessment should involve the comparison between the store's revenues and the attributable costs. Nevertheless, the income statement provided was elaborated based on the complete allocation of all company costs to all stores, and the common costs were distributed based on the sales.

The indiscriminate allocation of all costs to all stores based on the sales overestimates the value of the costs attributable to the store whose performance is being analyzed, giving the mistaken impression of a shortage.

The correct use of the information provided by Bruno, the financial manager, to calculate the attributable costs will show that closing down the store will actually reduce the company profits and is therefore unwanted.

Bruno's clarifications allude to one employee from the central office who will be made redundant if the store is closed, to remind that proximity is not a criterion to determine the attributable costs, and to make the teachers comment that the reality is not always clear and objective as described in the case. Therefore, subjective indirect cost allocations are needed in the verification of the attributable costs, as suggested by Shillinglaw (1963 and 1982), Dearden (1978), and Garrison et al. (2007).

The short review of the four indicated texts shows that the paper by Shillinglaw (1963) provides the most appropriate orientations to analyze the case. Nevertheless, the students and even some teachers may not appropriately acknowledge it value, as the text was published in 1963 and adopts a line of argument whose reading demands more time to be understood.

To overcome these difficulties, the teachers can recommend more didactical texts, such as the paper by Dearden (1978), Chapter 18 of the book by Martins (2010) and Chapters 12 and 13 of the book by Garrison et al. (2007). These last two chapters discuss the long-term policy decisions in a more elaborate and didactical manner.

The teachers are recommended to encourage the students to reflect on the problems of deciding on the closure of a store simply through a financial analysis based on the data from a single period, even if these data express long-term trends. The opportunity in that sense comes with the second case question. It starts with the premise that, if the West store were closed, at least a quarter of its sales would be transferred to the North store, due to the clients' strong fidelity to JBA Cosmetics.

The formal presentation of this premise allows the teachers to the comment that a store's revenues are not necessarily a good indicator of its gains. The possibility that one store's clients may purchase at the other network stores demonstrates that a store's segment margin may overestimate the losses deriving from its elimination. By the way, it should be highlighted that, in general, accounting measures are not appropriate performance indicators in case of interdependences between the segments. This can be illustrated by referring to the fact that some commercial companies maintain stands or stores simply to disseminate their products and services (concept stores). These stores gain no revenues and their costs benefit the companies, the products they sell and the other stores. In these cases, the sales from the other stores do not only result from their sales staff's work and the costs attributed to them by accounting are lower to the corresponding costs based on their use of company resources (unless, of course, costs from the concept stores are allocated to the others).

Finally, the teachers should show the students that there are relevant qualitative factors that need to be considered in the assessment of whether to close down a store, and which cannot be treated by accounting simply because they cannot be expressed in financial terms, or because of the limitations of the methods accounting employs.

7.4 Possible Answers To The Specific Questions

7.4.1 Which would be the reductions in the revenues and expenses of JBA if its partners decided to close down the West store? What would be the impact of this decision on JBA's profit?

The income statement for the year ended on 12/31/2010, which is displayed in Table 1 and expresses the expected values for subsequent years, indicates that JBA is a profitable company, but that the West store is not. In that year, it obtained a loss of R$104,400.00. This loss, however, resulted from the distribution of common costs to all stores, based on their sales values.

To demonstrate that the verified loss does not represent the result of the West store, it is sufficient to determine the expected variation in the profit of JBA if the West store were closed. This information is available in Table 5.

The statement in Table 5 evidences that, if the store is closed, JBA will not gain R$2,880,000 in revenues, but will only get a cost reduction of R$2,680,000. Hence, its profit will drop by R$200,000.00, showing that, in principle, closing down the store is not recommendable.

This result could be obtained approximately if Bruno analyzed the store and JBA's results regularly according to the model proposed by (1963,1982), Dearden (1978) and Garrison et al. (2007).

Table 5
Impact of closure of West store on income of JBA Cosmetics

Sales from West store	2,880,000.00
Attributable costs:	
Cost of products sold	1,612,800.00
Wages – sales staff	280,000.00
Direct propaganda	204,000.00
Store rent	340,000.00
Wages – delivery staff	16,000.00
Wages – central office staff	(4,000.00)
Wages – central office staff	24,000.00
Social contributions – sales staff	56,000.00
Social contributions – delivery staff	3,200.00
Social contributions – central office staff	(800.00)
Social contributions – central office staff	4,800.00
Insurance on furniture and inventories	20,000.00
Utilities	124,000.00
(-) Total net attributable costs	2,680,000.00
(=) Profit reduction due to closure of West store	200,000.00

Source: Elaborated by the authors.

Table 6 shows the stores' margins and the net operational profit of JBA Cosmetics determined according to the model the respective teachers proposed.

The income statement displayed in Table 6 evidences that the West store contributes less to the coverage of common costs, but that its closure is not desirable. It would lead to a reduction by R$111,600.00 in the profits of JBA.

The difference between the values in Tables 5 and 6 derives from the fact that Table 5 was constructed according to Bruno's considerations; and that Table 6 was elaborated through the simple reorganization of the data from Tables 1, 2 and 3.

Perhaps the information from Tables 5 and 6 should have been used to study the possibility of increasing the sales and margin of the products sold in the West store, and/or reducing the attributable costs. This would require the efforts of the administrators of JBA and the manager of the West store. These issues are discussed in chapter 12 of the book by Garrison et al. (2007).

Table 6

Income statement for year ended on 12/31/2010 (reorganized)

	Total	West	South	North
Sales	12,000,000.00	2,880,000.00	4,800,000.00	4,320,000.00
Cost of products sold	6,628,800.00	1,612,800.00	2,640,000.00	2,376,000.00
Gross Profit	5,371,200.00	1,267,200.00	2,160,000.00	1,944,000.00
Attributable Costs:				
Wages – store managers	244,000.00	48,000.00	120,000.00	76,000.00
Wages – delivery staff	84,000.00	28,000.00	28,000.00	28,000.00
Wages – sales staff	956,000.00	280,000.00	356,000.00	320,000.00
Social charges	256,800.00	71,200.00	100,800.00	84,800.00
Direct propaganda	748,000.00	204,000.00	288,000.00	256,000.00
Store rent	1,200,000.00	340,000.00	480,000.00	380,000.00
Depreciation of store furniture	45,600.00		24,000.00	21,600.00
Rent of store furniture	18,400.00	18,400.00		
Depreciation of delivery vehicles	36,000.00	12,000.00	12,000.00	12,000.00
Insurance of furniture and inventories	100,000.00	30,000.00	36,000.00	34,000.00
Utilities	424,000.00	124,000.00	160,000.00	140,000.00
Total attributable costs	4,112,800.00	1,155,600.00	1,604,800.00	1,352,400.00
Store margin	1,258,400.00	111,600.00	555,200.00	591,600.00
Common Costs				
General propaganda	180,000.00			
Wages – central office staff	236,000.00			
Social charges	47,200.00			
Central office expenses - others	300,000.00			
Total common costs	763,200.00			
Net operating profit	495,200.00			

Source: Elaborated by the authors.

7.4.2 Let us suppose that, if the West store were closed, at least a quarter of its sales would be transferred to the North store, due to the clients' strong fidelity to JBA Cosmetics. Let us also suppose that the North store would be able to absorb the estimated sales increase and that these additional sales would provide for the same gross percentage margin verified in the West store. What effect would these factors exert on the recommendation regarding the West store? Present all calculations used in the analysis of your decision.

The statement in Table 5 shows that closing down the West store as Bruno proposes will reduce JBA's profit by R$200,000.00. If a quarter of the sales from that store is transferred to the North store without any change in the gross margins of the product sold, and without the North store and JBA incurring any new costs, the reduction in JBA's profit will be compensated for by an increase in the North store's gross profit by R$316,800.00 (R$720,000.00 in sales minus costs of products sold R$403,200.00). In this case, JBA's profit will increase by R$116,800.00.

In short, the possibility of transferring the sales from the West to the North store under the conditions presented in the question makes closing down the desirable option.

7.4.3 What are the main non-financial aspects that should be considered in the decision to close or maintain the West store?

This is an open question that creates opportunities for the teachers to explore the case as they find most appropriate.

If the students really investigated business magazines and newspapers and brought histories from companies that at some time were obliged to close down stores, they will be able to explain the reasons that made these companies reduce their chains and how the administrators decided what stores to close.

The reports will certainly reveal the non-financial factors that were considered in the closure of the stores and that were considered together with the financial analyses to produce the decisions made.

Without any intent to exhaust the topic, some examples are listed below:

a. The store Modern Sound, a reference point in record sales in Rio de Janeiro, closed down in 2010, being unable to survive the changes that happened in the music trade. Pedro Otávio, the son of the store's founder, affirmed that "besides the large network and physical piracy, the sales policy practiced in the record industry as from the 1990's" favored the supermarkets and department stores, and made a decisive contribution to the closure of small street shops (Miguel, 2010).

b. Grande Rio Comércio de Veículos Ltda., concessionaire of Honda Automóveis do Brasil S/A in Maranhão, (Henrique, 2013) and the Group CAOA, which for some time was a reseller of Hyundai vehicles in Paraíba (Notícias Automotivas, 2013), were obliged to interrupt their commercial operations upon legal determinations in response to court cases started by companies they allegedly hindered.

c. An article published on the website Brasilagro (2013) informed the estimate that 168 stores of large retailers would be closed by the end of 2013. Three reasons were indicated: performance below expectations and overlapping of stores; "cleaning" of the store base after mergers and acquisitions; and, in the specific case of Via Varejo, determination of the Administrative Council for Economic Defense (Cade).

Question 2 exemplifies a non-financial factor that cannot be ignored. It suggests that, if it were not for the West store, some clients would not have tried out JBA's products and services and become loyal to the company. On the other hand, the JBA administrators need to assess whether the clients' loyalty is strong enough to make them leave the Western region to the North in search of the company's products. It should also be kept in mind that the competitors may benefit from the closure of the store to increase their market range in the region.

7.4.4 General question: As the results verified for 2010 express the expected values for the subsequent years, do they help the managers of JBA Cosmetics to decide on whether or not to close down the West store?

This question represents a special test for Accounting teacher. Before answering it, they should assess whether it is truly the function of a company accountant to issue a conclusive opinion about whether to close down a store.

Considering that accountants are specialized advisors to the administrators of any company, the best help they can provide JBA's administrators with is to provide them with technically correct financial analyses and clearly show the limits of these analyses. The decision will always be the administrators' responsibility.

Dean, Ferris and Konstans (1988) developed a longitudinal field survey among accountants recently hired for the controllership department of an industrial company and an audit firm in the USA and observed that, after one year, some of the accountants' expectations regarding the work did not come true, and that the frustration of these expectations was negatively associated with the commitment they expressed towards the organizations, the accountants' intentions to stay and participate and, to a lesser extent, with their decisions to produce. Thus, they concluded that setting realistic expectations for the tasks to be done and for the work conditions they will find is desirable for the accountants as well as the companies hiring them.

Therefore, it could be argued that the Accounting teachers are responsible for clarifying the scope of their future functions to their students, avoiding them from having expectations that will not come true.

8. References

ABIHPEC – Associação Brasileira da Indústria de Higiene Pessoal, Perfumaria e Cosméticos. *Panorama do Setor 2010-2011*. Retrieved in September 4th, 2013, from http://www.abihpec.org.br/wp-content/uploads/2010/11/Microsoft-Word-Panorama-do-setor-2010-2011-14_04_2011.pdf

Brasilagro (2013, Outubro 24) *Grandes varejistas estão fechando lojas*. Retrieved in January 8th, 2014, from http://www.brasilagro.com.br/index.php?noticias/detalhes/8/53724.

Dean, R. G., Ferris, K. R. & Konstans, C. (1988) Occupational reality shock and organizational commitment: evidence from the accounting profession. *Accounting, Organizations and Society, 13*(3), pp. 235-250.

Dearden, J. (1978, September/October) Cost accounting comes to service industries. *Harvard Business Review*, *56*(5), pp.132-140.

Henrique, M. (2013, Setembro 27) Justiça fecha loja da Honda em São Luis. O ESTADO. Retrieved in January 8th, 2014, from http://www.blogsoestado.com/marciohenrique/2013/09/27/justica-fecha-loja-da-honda-em-sao-luis/

Jiambalvo, J. (2009) *Contabilidade gerencial*. Rio de Janeiro: LTC.

Garrison, R. H, Noreen, E.W. & Brewer, P. C. (2007) *Contabilidade Gerencial*. Rio de Janeiro: LTC.

Garrison, R. H, Noreen, E.W. & Brewer, P. C. (2013) *Contabilidade Gerencial*. Porto Alegre: AMGH.

Martins, E. (2010) *Contabilidade de Custos*. São Paulo: Atlas, 2010.

Michaelis. *Dicionário de inglês online*. Retrieved in August 30, 2013 from http://michaelis.uol.com.br/moderno/ingles/index.php?lingua=ingles- portugues&palavra=traceable

Miguel, A. C. (2010, Dezembro 15) Com o iminente fechamento da Modern Sound, o Rio perde sua última grande loja de discos. *O Globo*. Retrieved in January 8th,, 2014, from http://oglobo.globo.com/cultura/com-iminente-fechamento-da-modern-sound-rio-perde-sua-ultima-grande-loja-de-discos-2910862

Naiditch, S. (2006, setembro 21) Dois anos sem crescer. *Revista Exame,*877. Retrieved in August 30, 2013 from http://exame.abril.com.br/revista-exame/edicoes/0877/noticias/dois-anos-sem-crescer-m0111588.

Notícias Automotivas (2013, Junho 21) *CAOA tem que fechar lojas na Grande João Pessoa*. Retrieved in January 8th, 2014, de http://www.noticiasautomotivas.com.br/fiat-grand-siena-serie-especial-sublime-chega-por-r-46-360/

Shillinglaw, G. (1963, spring) The Concept of Attributable Cost. *Journal of Accounting Research*, 1(1), pp. 73-85.

Shillinglaw, G. (1982) *Managerial cost accounting*. Homewood: Irwin.