The Impact of Strategic Management Accounting on The Financial Performance of Low-Cost Airlines

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Abstract: - Strategic management accounting is the last stage of evolution in management accounting, seeking to contribute strategic information to support strategic decision-making and strategic management; this information is obtained from the application of several strategic management accounting techniques for collecting superior information. This paper aims to determine the role of strategic management accounting in the financial performance of low-cost airlines, seeking to encourage its adoption, implementation, and use for these types of companies. It relies on a literature review regarding strategic management accounting and the airline industry, especially with documents obtained from Scopus and Web of Science. Besides, a questionnaire was applied to experts in this industry, along with the application of a spline regression model for data analysis. The study revealed that the contribution of strategic management accounting in the financial performance of the analyzed low-cost airlines is influenced by decision-making and decision-implementation processes, management accountants who provide external, non-financial, and forward-looking information are the main actors in the adoption, implementation, and the use of strategic management accounting in the analyzed low-cost airlines.

Key-Words: Strategic management accounting, strategic management accounting techniques, airline industry, low-cost airlines, financial performance, spline regression model.

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1 Introduction

In the dynamic business environment of the last century, companies have been facing several challenges derived from deregulation, globalization, high international competition, changes in manufacturing processes, advances in information technology, and service industry growth. In this context, strategic management accounting (hereinafter SMA) arose to face the demands of companies for information strategically oriented, to support strategic decision-making, integrating developments from management accounting (hereinafter MA), strategy, strategic management, marketing, production, and finance. This topic has been studied since 1981 and researched seeking to establish its assistance in the strategic management processes, with a particular focus on the financial performance of companies. Despite the lack of consolidation and implementation of SMA, its progress continues, and its impacts seem to depend on specific factors faced by the diverse industries.

Concerning the airline industry is a dynamic one where two main business models operate: i) Full-service airlines (FSAs), and ii) Low-cost airlines (LCAs). Airlines face a competitive business environment characterized by high fixed costs, low levels of profitability, and high complexity in the operational area. Until now, the role and application of SMA with strategic information to support decision-making have not been sufficiently studied in the LCA industry.

This paper aims to determine the contributions of SMA to the financial performance of LCAs, seeking to encourage its adoption, implementation, and use for these types of companies.

This research and its findings and results are limited to the twelve analyzed LCAs and the SMATs and theories included in the study, such as is explained by, [1], [2], when the non-probabilistic sample is used. Besides, it is not appropriate to generalize the obtained conclusions because the contingency theory highlights that there is not a universal solution for all the problems in all companies. Likewise, [3], affirmed that it is not appropriate to generalize findings and conclusions obtained from case studies. In that sense, the article is divided into four sections: i) this introduction, ii) the literature review, iii) the research methodology and results, and iv) the conclusions.

2 Literature Review

The literature review on SMA corresponds to 92 papers in Science Direct and Scopus, for the period 1981-2022. Based on the obtained papers, it is identified that this is an emergent topic still in the process of maturation, even though their contributions to the strategic management of companies and its strengths identified and proposed by several authors. The most common theory to research on SMA is the Contingency Theory (CT). Additionally, [4], stated that CT arose during the 70s to explain the diversity of MA practices. In that way, all research in MA is fundamentally contingent because it seeks to identify when it is appropriate to apply determined practices in particular conditions faced by organizations.

In summary, the CT is appropriate to study SMA because its implementation and contributions vary by industry and company, where the existence of factors such as uncertainty, competitiveness, and company size determine the set of practices that best fit. Other theories used to carry out studies on SMA are strategy -*how companies compete and create a competitive advantage*-, [5], [6], the Contestable Markets Theory -*how markets work*-, [7], [8], the Grounded Theory -*theories resulting from the research process*-, [9], [10], [11], and the Upper-echelons theory -*companies reflecting the traits of their top managers*- [12], [13].

This article defends the possibility of carrying out research on SMA relying on Behavioral theory. In that context, the provision of accounting information affects and determines the type of decisions and their direction. The main topics related to Behavioral Accounting have been i) how accounting information impacts human behavior, ii) managerial control -*budget participation, non-financial measures, leadership, and Balanced Scorecard*-, iii) auditing -*auditor-client negotiations, auditors' judgments, and decision-making*-, and iv) ethics -*ethical decision-making, ethical orientation, and rationalization on unethical behavior*-, [14]. The main contributions of SMA are related to the provision of some ideas to understand the decision context, the judgments, perceptions, and feelings of decision-makers, and how accounting information, practices, and regulation determine and shape these decisions.

The study of SMA is associated with components of organizations that must be characterized by constantly changing in the environment, and the presence of a set of forces affecting them -*globalization, local and global competition, technological developments, and the existence of Multinational Enterprises*[1]-, [15]. The development and evolution from MA to SMA have been affected by many critics of the first, such as the lack of information to support the organization's strategic processes, and to respond to the emerging challenges derivative of technology, [16], some problems in assessing the strategic aspects of the organization's management, [17], and the need to incorporate the strategy in the organizational analysis, [18]. SMA emerged characterized by the following key features: i) environmental orientation, ii) focus on competitors, iii) long-term information, and iv) forward-looking orientation, [19]. SMA finally bridged the gap that existed between MA and strategic management, moving MA from monetary concerns to a more multi-dimensional approach, [15], [20], [21], [22], [23].

SMA is related to providing and analysing information about diverse internal and external variables considered strategic[2]. Some additional definitions that highlight similar factors are [15], [21], [22], [23], [24], [25], [26], [27], [28], [29].

[1] Note by the authors.

[2] Market trends, market prices, market share, competitors cost structure, products and services, profitability margins, strategy, competitiveness.

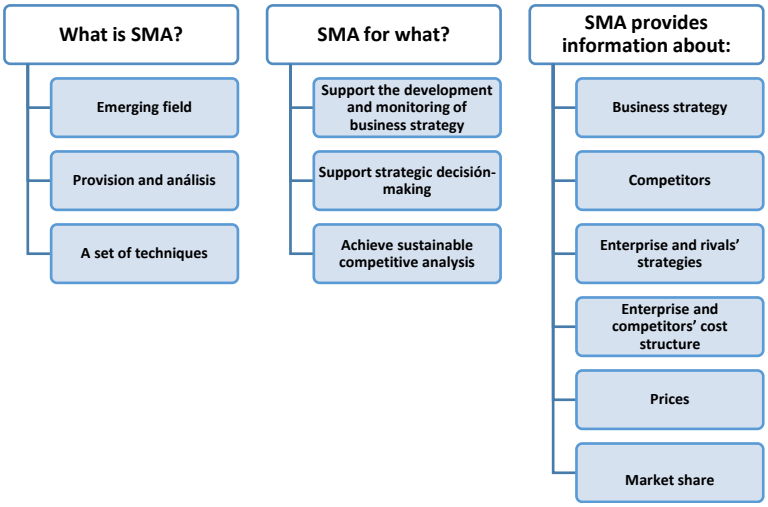


Fig. 1: Main factors related to the concept of Strategic Management Accounting
Source: The authors' study.

In some recent papers, SMA is understood as the connection of MA with strategic positioning, [30], as a source of information on the competitive advantage and performance of the firms, [31], and as a type of organizational system that delivers information to support strategic decision-making processes, integrating accounting and strategy, [32]. SMA implies a multidisciplinary view that integrates ideas from accounting, management, and strategic management, [33], and is a branch of accounting linked with enterprises' strategic management, [34]. In addition, SMA contributes information to support the definition, implementation, and monitoring of the business strategy, affecting the financial performance. Figure 1 represents the main factors related to the concept of SMA. SMA is deployed by companies through the implementation and use of a set of SMATs (Figure 2). They imply the presence of interdisciplinary contributions, with some techniques taken from management, such as benchmarking and integrated performance measurement. The study, [35], encountered that SMA has positive effects on performance because it amplifies the frame of information, as well as, [36], [37].

The study, [38], proposed two main SMA roles: i) the provision of information to assist in the development of strategic plans, and ii) monitoring the market, competitors' price structures, and competitors' cost structure. The study, [25], concluded that it is necessary to continue developing SMA to improve the methodology, methods, techniques, organization, and practices of MA. Also, special attention shall be paid to the professional training of accounting personnel.

Strategies in the airline industry defer the objective of LCAs regarding costs to have control and try to reduce them as far as possible, in search of maintaining a competitive advantage, [39]. There are some ways for LCAs to compensate incomes from low ticket fares, through revenues obtained from ancillary services: i) catering, ii) priority boarding, iii) seat reservation, and iv) luggage. Besides, there are some ways to maintain a competitive advantage in the sector: i) cutting the cost down continuously, ii) expanding market share, and iii) revenue maximization efficiency, [40]. Another interesting aspect regarding LCAs is pricing, the main competitive factor for companies that develop a cost leadership strategy. They rest especially on internal factors like airlines' decisions, revenue management, some operational factors -*fuel booking online, aircraft maintenance, and flight schedules*-, and external factors -*the market structure and demand*-.

The rate exchange also affects costs and prices, creating currency fluctuation risks. IATA, [41], highlights that for airlines, the main currency is the dollar due to many components of the cost being carried out in this currency such as fuel, maintenance, revision, payments of new aircraft, and leasing. Besides, the rate exchange affects passengers' decisions, airlines' decisions -*especially regarding investments and offers*-, profitability, and balance sheet. Table 1 presents some SMATs' contributions to the key strategic decisions by LCAs.

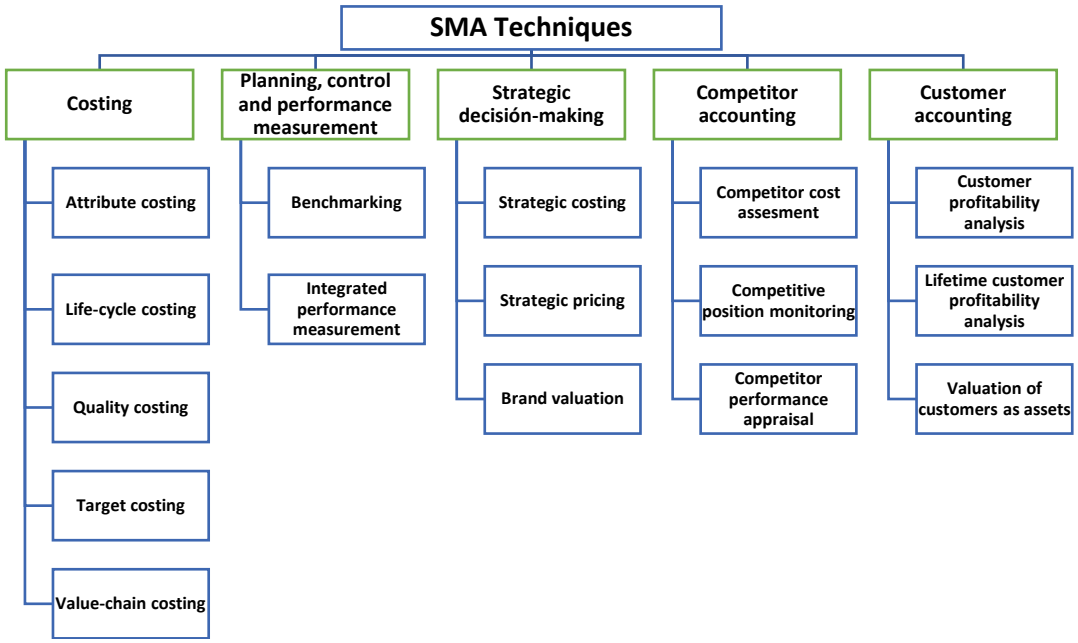


Fig. 2: Techniques of Strategic Management Accounting
Source: the authors' study based on Cadez and Guilding, [13].

Table 1. Strategic Decisions by Low-cost Airlines and Contributions of Strategic Management Accounting

Strategic	Techniques of SMA
Prices/fares	Attribute costing, quality costing, strategic pricing, customer profitability analysis, target costing, value chain costing, benchmarking, and brand valuation.
Routes	Competitor cost analysis, life-cycle costing, strategic pricing, benchmarking, integrated performance measurement, and customer profitability analysis.
Fuel	Target costing, benchmarking.
Capacity	Life-cycle costing, target costing, competitor cost analysis, and customer profitability analysis.
Staff	Quality costing, target costing, benchmarking, integrated performance measurement.
Frequencies	Life-cycle costing, benchmarking, brand valuation, competitor cost assessment, and customer profitability analysis.
Airports to operate	Life-cycle costing, target costing, benchmarking.
Handling	Target costing, benchmarking, integrated performance measurement, and competitor cost analysis.
Costs control	Target costing, value chain costing, competitor cost analysis, and customer profitability analysis.
Marketing	Attributes costing, integrated performance measurement, and brand valuation.
Outsourcing	Quality costing, target costing, value chain costing, benchmarking, integrated performance measurement, and brand valuation.

Source: The authors' study.

3 Research Methodology

3.1 Research Methods

For the quantitative research of this paper, 24 LCAs were identified following Skytrax awards 2019: 10 in Europe, 10 in North America, and 4 in Latin America. Nevertheless, only 12 were studied for

several reasons[3]. Financial information was obtained from the airline's annual reports, corporate websites, Statista, and the Education Management Information System (EMIS). A questionnaire using a seven-point Likert scale[4] was applied seeking to identify senior managers and experts in the airline industry perceptions and points of view on the contributions that SMA makes to the decision-making processes.

As a first step, some emails were sent to international institutions of the airline industry, asking about the possibility to apply the questionnaire to members of the management team of airlines associated with each of them. In particular, the following seven international institutions in the airline industry were contacted: i) International Air Transport Association (IATA), ii) International Civil Aviation Organization (ICAO), iii) European Aviation Network, iv) Airlines for America, v) Regional Airline Association, vi) The Airline Passenger Experience Association (APEX), and vii) Airlines for Europe.

At the beginning of July 2021, an awareness and presentation email was sent to the contact of the diverse chosen airlines; the contact was obtained directly from the website or financial reports. The focus group was composed of CEOs, CFOs, Chief of Accounting, Chief of Strategy, Controller, and Chief of Planning.

Subsequently, from October 2021 to April 2022, diverse experts with experience as high directors in the airline industry were searched on the social network LinkedIn.

From May 2022 to January 2023, a total of 34 responses by senior managers and experts in the airline industry were received of which 18 were in Spanish and 16 were in English[5]. The questionnaire was composed of 82 questions classified into nine sections (Table 2) and its internal reliability and consistency were validated through Cronbach alpha, the opinion of two researchers -*one in English and the other in Spanish*-, two Financial Directors -*CFO*-, and two English native speakers -*one American and one British*-. Python language was used to carry out the descriptive and inferential statistics through several figures and some spline regression models. Cronbach Alpha is frequently employed to measure validity and reliability, the questionnaire used in this study resulted in a Cronbach Alpha of 0.937 > 0.6, confirming that it has good internal consistency.

Table 2. Structure of the Applied Questionnaires

Section Name	**Number of Questions**
1. General information of respondents	Six (6)
2. Level of satisfaction with the current accounting information	Three (3)
3. Level of implementation of SMA techniques	Sixteen (16), one for each SMA technique
4. How appropriate is the use of the SMA techniques	Sixteen (16), one for each SMA technique
5. Level of importance of the use of SMA techniques for the next five years	Sixteen (16), one for each SMA technique
6. The five areas of strategic decisions in the airline	One (1)
7. Impacts of the SMA on the financial performance	Nine (9)
8. Determinants of the impact of SMA on the financial performance	Five (5)
9. Implementation of SMA and roles of management accountants	Ten (10)
TOTAL	Eighty-two (82)

Source: The authors' study

Considering that a total of 62 questionnaires were sent to experts interested in attending it, the answer rate was 54.8%. Furthermore, contrary to probabilistic samples, this researcher applied a non-probabilistic one with a focus on a particular group such as in the case of convenience sampling which according to, [43], is appropriate for exploratory research. It implies choosing the closest people, the ones of easy access who own a particular characteristic or the conveniently available to fill out the questionnaire.

3.2 Hypothesis Development

One of the key variables to be studied in business is performance. In the airline industry, it can be measured by financial -*profitability, revenues, return*

[3] Lack of financial information (especially for LCAs in Latin America), some of them failed in bankruptcy (Wow Air and Interjet), and the lack of information individually by company and not for group (Eurowings from Lufthansa, Level and Vueling from AIG group).

[4] From 1= not used at all, to 7= extremely used.

* One for each SMAT.

[5] To increase the number of answers, some of the steps suggested by [42], were deployed: i) sending follow-up emails, ii) informing the respondents about the questionnaire, and iii) presenting an introductory letter or paragraph. They also recommend a small monetary incentive; it was not considered in this research. Nevertheless, an executive report with the main conclusions and findings of the study was offered.

on assets, return on equity, and others-. For any industry, some factors affecting financial performance are technology, degree of centralization, type of control, or style of leadership, [44], and costs, assets, and revenues, [45]. Financial performance is affected by the appropriate decisions taken by senior managers and the information they employ to support them. In that regard, it is not clear how accounting information supports decision-making processes and what kind of information fits better for these objectives. Moreover, SMA seeks to provide strategic accounting information for supporting decision-making which could improve financial performance.

MA practices that offer vast information are positively related to company performance, such as the case of SMA which permits the improvement of the financial performance of companies that operates in high-complexity environments, [46]. Based on the previous ideas, in the study about the airline industry, in particular the impact and direction in which SMA is a determinant of the financial performance of LCAs, it is appropriate to raise the following hypothesis:

H: *Strategic Management Accounting has a direct impact on the financial performance*[6] *of low-cost airlines, this impact can be measured, and the direction of the impact can be identified.*

The hypothesis can be divided into three auxiliary ones:

Ha: Strategic Management Accounting techniques related to Costing have a direct impact on the financial performance of low-cost airlines, its impact can be measured, and the direction of impact can be identified.

Hb: Strategic Management Accounting techniques related to Planning, control, and performance measurement have a direct impact on the financial performance of low-cost airlines, its impact can be measured, and the direction of impact can be identified.

Hc: Strategic Management Accounting techniques related to strategic decision-making have a direct impact on the financial performance of low-cost airlines, their impact can be measured, and the direction of impact can be identified.

To test the hypotheses, three regression models are proposed. Model 1 was used for testing hypothesis Ha, where Y = Financial performance, β_0= Intercept (effect of Ryanair), $\beta_1 X$ = effect of Attribute costing, $\beta_h W$= effect of a selected LCA, $\beta_j Z_j$, Spline effect where j is the number of basis functions of the spline, and ε = Error:

Model 1 Costing:

$$\mathbf{Y = \beta_0 + \beta_1 X + \beta_h W + \beta_j Z_j + \varepsilon.} \quad \mathbf{(1)}$$

Model 2 was used for testing hypothesis Hb, where Y = Financial performance, β_0= Intercept (effect of Ryanair), $\beta_1 \lambda$ = effect of Benchmarking, $\beta_h W$= effect of a selected LCA, $\beta_j Z_j$, Spline effect where j is the number of basis functions of the spline, and ε = Error:

Model 2 PCPM[7]:

$$\mathbf{Y = \beta_0 + \beta_1 \lambda + \beta_h W + \beta_j Z_j + \varepsilon.} \quad \mathbf{(2)}$$

Model 3 was used for testing hypothesis Hc, where Y = Financial performance, β_0= Intercept (effect of Ryanair), $\beta_1 \mu$ = effect of Strategic costing, $\beta_h W$= effect of a selected LCA, $\beta_j Z_j$, Spline effect where j is the number of basis functions of the spline, and ε = Error:

Model 3 Strategic decisión-making:

$$\mathbf{Y = \beta_0 + \beta_1 \mu + \beta_h W + \beta_j Z_j + \varepsilon.} \quad \mathbf{(3)}$$

3.3 Validation of Models' Assumptions

Shapiro-Wilk is a statistical test of normality. In this case, the Shapiro-Wilk test generated a statistic of 0.8660 and a p-value of 1.9265e-08 > 0,05. Results reveal significance; therefore, we reject the null hypothesis of normality since its p-value is less than 0.05. Nevertheless, this is not conclusive proof since Figure 3 indicates that there is robust normality. The problem of significance in the test is the existence of an outlier that makes the test for normality significant since this test is based on the Skewness and Kurtosis of the data. In that vein, the outlier affected both asymmetry and kurtosis of data.

[6] Financial performance was measured through Profitability, ROA, and ROE; nonetheless, the last two did not generate statistically significant results because of a huge variance in data.

[7] Planning, control, and performance measurement.

This can be verified in Figure 3B Data distribution, which looks like a symmetrical bell-shaped density, but with a longer tail to the right. Besides, in Figure 3C Q-Q plot, almost all the data are aligned quantile by quantile, since the theoretical quantiles of the normal and the observed quantiles are aligned on the ideal red line.

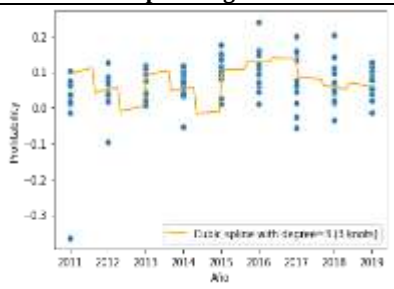
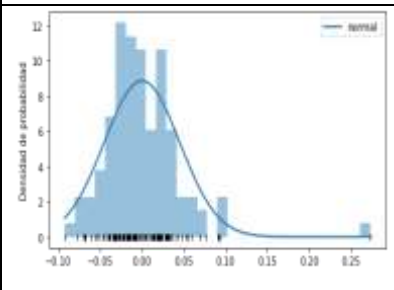
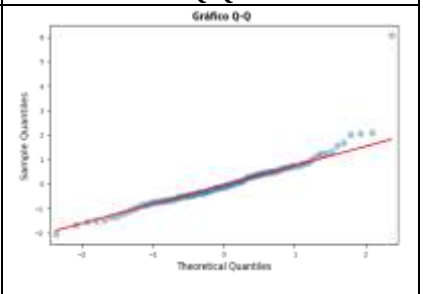
3A: Spline regression	3B: Data distribution	3C: Q-QPlot
		

Fig. 3: Normal results
Source: Authors' study

Breusch Pagan is a test of Homoscedasticity. It focuses on the constant variance of the errors. In this case, the Breusch Pagan test generated a statistic of 1.6648 and a p-value of 0.0766 > 0,05. It implies that this Homoscedasticity test turned out to be not significant, therefore, we do not reject the null hypothesis of homoscedasticity, since its p-value is less than 0.05, but the value obtained is very close to significance. It may be because of the existence of some outliers that affect the target variable over time, such as the negative financial performance by Norwegian Air for years 2014 and 2017, and Air Baltic in years 2011, 2012, and 2019.

Finally, Durbin-Watson is an error autocorrelation test. It takes a value between 0 and 4. Values close to 2 indicate that there is no correlation. On the one hand, values from zero to close to 2 indicate the existence of a positive correlation. On the other hand, values from above 2 to 4 indicate a negative correlation. In this case, the Durbin-Watson test generated a statistic of 1.58. It turned out to be in the range between 1.5 and 2.5, therefore, there does not exist a significant autocorrelation of errors affecting the current model.

4 Research Results and Discussion

This section analyses the data obtained from the thirty-four (34) respondents -*sixteen in English and eighteen in Spanish*-, and the financial information -*profitability*- collected from twelve LCA: i) Ryanair, ii) EasyJet, iii) Norwegian Air, iv) Wizz Air, v) Jet2.com, vi) Air Baltic, vii) Southwest Airlines, viii) Spirit Airlines, ix) Allegiant Air, x) WestJet, xi) Volaris, and xii) Viva Aerobus. Regarding the current use of the sixteen SMATs by, [35], SMATs with high importance for the analyzed LCAs by the mean score are: i) strategic pricing (5,7), ii) benchmarking, competitive position monitoring, and competitor performance appraisal (5,6), and iii) integrated performance measurement and strategic costing (5,3). These results are aligned with the ideas of, [40], [47], [48], Southwest Airlines' annual report (2019)[8], and Spirit Airlines' annual report (2019)[9].

On the other hand, the four SMATs with low importance are i) Lifetime customer profitability analysis (3,7), ii) valuation of customers as assets (3,8), and iii) customer profitability analysis, and brand valuation (3,9). Regarding brand valuation, during the literature review and company reports, it was not identified any strategy related to brand strengthening in airlines. In addition, the three SMATs related to customer accounting seem to be not important for airlines. In LCAs, it could be for the non-existence of loyalty programs to retain

[8] Southwest Airlines. (2019). 2019 Annual report to shareholders. https://www.southwestairlinesinvestorrelations.com/financials/company-reports/annual-reports

[9] Spirit Airlines. (2019). Form 10-K/A. https://sec.report/Document/0001498710-20-000083/

customers and the absence of high-level customer service.

Table 3. Results Spline regression for the seven models

Hypothesis	Model	R2	Coeff	P-value	Result
Ha	M1: Attribute Costing	0,7144	0,0204	0,000	Accepted
Hb	M2: Benchmarking	0,7144	0,0156	0,000	Accepted
Hc	M3: Strategic Costing	0,7149	0,0162	0,000	Accepted

Source: The Authors' study

The hypotheses were tested using Spline regression models, as nonlinear regression models, a minimization method for obtaining the least square estimates of regression parameters. Concerning the three models, Spline regression generates results in Table 3. After identifying multicollinearity within each model for Model 1 (M1), within the group of five SMATs related to costing, Attribute costing was chosen because it has the smallest average score (4,0). For Model 2 (M2), within the group of two SMATs related to planning, control, and performance measurement, Benchmarking was chosen because it has the biggest average score, [15], [25]. For Model 3 (M3), Strategic costing was chosen because it has the middle position by mean score among the SMATs related to strategic decision-making, [24], [25].

According to the results presented in Table 3, all the analyzed SMATs positively and significantly affect the financial performance of the studied LCAs. These results are supported by the results of the spline regression models in Appendix 2.

One common way of validating results is triangulation. It relies upon the use of two or more methods of data collection in the study of some aspects of human behavior, continuing with a contrast between the information obtained from each of them. The obtained results can be compared with the ones of previous studies researching the relationships between SMA and financial performance. Based on the literature review, studies that have identified strong and positive relationships between SMA and financial performance are [3], [50], [51], [52], [53], [54], [55], [56].

On the contrary, some studies have identified weak, contradictory, or not relationships between SMA and financial performance, such as [46], [49], [56].

The results confirmed that the most applied SMATs currently in the studied LCAs by the mean score were Strategic pricing, Benchmarking, Competitive position monitoring, and Competitor performance appraisal and stated the most crucial factor for LCAs. Strategic price is a key variable because several costs are common and non-controllable for all the airlines either FSAs or LCAs -*i.e., fuel, leasing of aircraft*-; in that context, the price is the key variable, and airlines tend to watch for changes to these all the time. Moreover, prices are commonly a strategic factor in any industry, and LCAs use additional charges i.e., luggage, to control passengers' behavior and to facilitate operational efficiencies.

Concerning Benchmarking and SMATs related to competitor accounting, are crucial because airlines aggressively compete for a small margin, and they must go for every segment. The market position is essential, and airlines must change prices and then fix cost and profitability by kilometer, but always comparing with competitors.

Regarding the financial performance of LCAs and the best measurements to assess it, along with some reasons investors for continuing investing in companies in the airline industry which offer low levels of profitability, one of them declares that some particularities in the industry determine investment in it; the profitability is low (*1%, 2%, 3%*) and cost efficiency is a strategy for getting higher profitability. It is an industry facing different perspectives on risks, and it could give low profitability in the long-term but for sure, that could originate some security. Finally, it is a basic service that is supported by governments. ROE depends on debt, high or low, and the shareholders' expectations. Besides, ROA could be controversial because assets in an LCA are very expensive. The best index to measure profitability in LCAs must be Cash Balance. This variable has a huge fluctuation in the industry and LCAs must pay obligations in cash.

Results reveal that SMA positively and significantly improves the financial performance of the analyzed companies, and interviewees confirm findings and results, with some additional comments about particularities that characterize this industry. In addition, for the analyzed LCAs, it was identified

that most of the SMATs are used for them above average.

SMA can be understood as the last stage in the development of MA, seeking to provide information, which is external, financial and non-financial, long-term, and forward-looking. Besides, it is an interdisciplinary concept that integrates developments from MA, strategy, strategic management, finance, marketing, and production, trying to face diverse critics and weaknesses of MA. The adoption of a set of SMATs could affect the financial performance and improve the decision-making processes, due to the provision of strategic information supporting decisions and how companies are managed.

Concerning the airline industry is centered on the air transport of passengers and cargo. It is also characterized by the presence of several airlines' business models, such as FSAs and LCAs. The LCA business model seeks to generate benefits and profitability by maximizing efficiencies and minimizing costs.

In the empirical part of the study, respondents recognized the possibilities of SMA helping that key function in LCAs, while Spline regression models were used obtaining both positive and significant results at 99%, showing a good fit between the available data for this research This is confirmed by the fact that the three most used SMATs by the analyzed LCAs are strategic pricing, competitive position monitoring, and competitor performance appraisal. In that sense, the airline industry needs to pay attention to the strategies and actions deployed by other airlines to go up against competitors, from the other side customer service and the attributes of the offered services are not enough important within their essential strategies.

5 Conclusions

The main contribution of this paper is the identification of the impacts of SMA on the financial performance of the studied LCAs which are determined and confirmed through the triangulation of information obtained from data analysis, questionnaires, interviews, and financial data of the LCAs.

Regarding the direct impact that SMA has on the financial performance of the studied LCAs, it was inferred from the data analysis that the chosen SMATs related to Costing -Attribute costing-, Planning, control, and performance measurement -Benchmarking-, and Strategic decision-making -strategic costing-, are the best predictors of changes on financial performance when it is measured in Profitability, generating positive and significant results at 99%.

From an academic perspective, academics and researchers must continue studying and researching SMA because it provides essential information to support decision-making by companies and to decrease the uncertainty of the business context, which ultimately could positively affect financial performance. Nevertheless, as stated by contingency theory, the analysis in MA depends on specific factors that characterize every industry and even company. Besides, there is a lack of research on several industries, such as automotive, pharmaceutical, supermarkets, and start-ups, among others, that could be studied in the future to identify which SMATs best fit their information needs.

From a professional perspective, for accountants, the training processes on SMA are essential to create awareness and to encourage the adoption and implementation of SMA by companies, processes that could be led by accountants. According to some interviewees, it is critical for management accountants to understand how the business environment works and to analyze and interpret accounting information in a broader context. Based on the experience of the author of the study there is a lack of training on SMA in Latin American countries. From an industrial perspective, for senior managers of LCAs, based on the results, better customer service could be a differential factor and a driver of competitive advantages for LCAs in the future. In that vein, it is expected that LCAs will use more SMATs related to customer accounting, such as customer profitability analysis, valuation of customers as assets, and lifetime customer profitability analysis. Besides, strategic pricing and competitor accounting will continue to be important for the analyzed LCAs.

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