



Universidad
del Valle



Cuadernos de
Administración

Journal of Management

Print ISSN: 0120-4645 / E-ISSN: 2256-5078 / Short name: cuad.adm.

Pages: e1012438 / Vol: 38 / Issue: 73 / May - Aug. 2022

Faculty of Administration Sciences / Universidad del Valle / Cali - Colombia

Supply chain design with financial criteria. A necessity?

Criteria financieros en el diseño de cadenas de suministro. ¿Una necesidad?

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Supply chain management involves strategic, tactical, and operational decisions. Strategic decisions involve a more-than-one-year planning horizon and consider the facility selection, types of products to be manufactured, and outsourcing of operations. Tactical decisions, with a 6 to 12 months horizon, involve decisions such as demand forecasting and inventory management. Operational decisions include a one-week time horizon, at the longest, and regard, among others, resource planning, *picking*, *packing*, and route planning.

Strategic and tactical network design decisions are generally challenging to reverse and involve significant time and money investment. Due to a country's macroeconomic effect and market shocks, these decisions increase in complexity in high-uncertainty environments. Thus, what may be an "optimal" network design today could be a "bad decision" in the future due to drastic changes in network parameters.

Traditionally, approaches to network design have focused on cost minimization, neglecting the financial side of the problem. The general idea of considering the network design issue as an investment decision leads to the notion

that companies should obtain a return on or profit from the money involved in such a "project." Notably, higher returns should be demanded the riskier the investment; that is, the expected return of any investment is proportionally tied to its financial risk. Thus, it is necessary to consider that any decision related to distribution network design must be evaluated under financial profitability or risk criteria. This situation does not happen practically as many companies worldwide fail to consider the financial risk and variability of critical network parameters in optimizing distribution networks. It is necessary to emphasize that decisions such as the location of a new plant or warehouse or the relocation or shutting down of an existing facility can overwhelm a company's finances if the necessary knowledge of the variables involved in the process is unavailable.

In Colombia, supply network design decisions must consider organizations' long-term stable growth and economic value generation. In changing environments and economic recessions such as today's, the network design issue becomes more critical considering the effects of the various free trade agreements, the opening-up of markets, and access to diversified products

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and references. Our country needs to drift away from subjectively solving companies' logistic problems based on the experience

of the people in charge of the decision-making process to methodologies that allow companies to grow stably.

Editorial Note

The 73rd issue of *Cuadernos de Administración* corresponds to the May-August 2022 period. The ten published papers come from the journal's new strategy of keeping a permanent call for papers meeting the highest scientific and language standards. In this issue, authors from several countries and regions of Colombia submitted their manuscripts to our editorial process. The ten papers in this issue prove the high quality in several aspects of management, *marketing*, finance, logistics, education, circular economy, human talent management, and regional development.

The first article, "Analysis of advertising jingles from the '80s and '90s through affective computing," posits a novel tool called ANEJIP (Analyzer of Emotions in Advertising Jingles), which makes it possible to break down audio into fragments and then extracts its acoustic properties of arousal and valence, which in turn allow determining the emotion associated with each fragment within the circumflex model or Russell's model. The proposed methodology aims to serve as a reference for designing and evaluating musical content in advertising jingles in order to elicit specific emotions in potential customers.

"Taxonomy of Material handling equipment selection methods at distribution centers" outlines a material-handling equipment taxonomy based on a systematic literature review of previous work on both material-handling equipment in real-world picking-intensive logistics contexts and decision support systems (DSS). The paper "Value co-creation and its impact on organizational performance: the case of the amateur football clubs of Antioquia football league of Colombia" analyzes the impact of value co-creation on organizational performance in amateur soccer clubs. A structured questionnaire was conducted on a 345-people

sample, including managers, chairmen, and executives of amateur soccer clubs of the Antioquia Soccer League of Colombia. Data were analyzed using partial least squares modeling with SmartPLS software.

"Working conditions and burnout in personnel of a Mexican government agency" addresses the problem of proper working conditions to prevent mental health risks, such as organizational burnout, understood as a combination of exhaustion, depersonalization, and dissatisfaction with achievement. It aims to analyze the relationship between different working conditions dimensions and the occupational burnout dimensions in order to identify potential risks and stressors that could lead to occupational burnout. The paper "Learning about the circular economy in rural communities of Cauca" deals with circular economy learning based on two research experiences in rural communities in Cajibío and Popayán, Department of Cauca. The study results are conducive to circular economy learning derived from community practices using rural households' waste to valorize benefits.

"Tax incentives and financial performance: empirical evidence of Ecuadorian companies" analyzes the impact of tax benefits on the financial performance of companies in Ecuador's manufacturing and trade sectors between 2015 and 2018. The impact of this strategy on company profitability is studied through a comparative analysis using financial indicators and a multiple regression model. The study showed that companies applying tax incentives are in a better financial position and that the smaller the firm's size, the higher the rate of profitability concerning business investment.

The paper "Wage Discrimination by Gender of South American Immigrants in the US Labour Market" analyzes wage discrimination

of South American immigrants and uses the native population classified as non-Hispanic whites and African Americans by gender as a reference group in the U.S. context. The results show wage disparity towards the female population of all population groups compared to their male counterparts, which is not consistent with their average higher educational background, which could be explained by unequal treatment in the labor market, among other things. "Identifying the small rural family business based on the categorization of family farming" proposes a categorization of family farming to identify its profile and assess the development potential and limitations of small family businesses in the rural community of San Antonio Portezuelo, State of Puebla, Mexico.

The article "Assessment of Technical Efficiency in Higher Education in Ecuador" assesses relative efficiency under a data envelopment analysis perspective in Ecuadorian universities. The methodology set forth therein considers a retrospective cross-sectional analysis using a non-parametric technique that permits units' relative measurement. The constraint was configured according to the oriented output DEA-BCC

model with scale performance and helped measure performance. Nevertheless, its global scope may distort technical efficiency reality, depending on the resources of the universities.

Finally, the last literature review paper, "State of the art on organizational longevity: a systematic literature review," considers relevant education and organizational longevity topics. It presents a review of the notion of organizational longevity based on a systematic literature review from two databases (WOS and Scopus), aided by two specialized bibliometric analyses and scientific mapping software (Bibliometrix and VOSviewer).

The publication of issue number 73 of **Cuadernos de Administración** of the Universidad del Valle's School of Management consolidates us as a prestigious journal in the scientific dissemination of knowledge across different areas. The journal would like to thank each of these ten papers' authors and the peer reviewers who supported our editorial process, always bearing in mind that the content of each paper is each author's responsibility.

How to cite this paper?

Escobar, J. W. (2022). Editorial. *Cuadernos de Administración*, 38(73), e1012438.
<https://doi.org/10.25100/cdea.v38i73.12438>

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