

MULTI-CRITERIA VALUE ASSESSMENT FOR BUSINESS-TO-BUSINESS

Ana Beatriz Tocalino^a, Antonio L. Netto^b, Valério A. P. Salomon^c

^a Sao Paulo State University (UNESP) – ana.tocalino@unesp.br

^b Sao Paulo State University (UNESP) – antonio.lombardi@unesp.br

^c Sao Paulo State University (UNESP) – valerio.salomon@unesp.br

ABSTRACT

This paper proposes a theoretical approach to apply a multi-criteria decision-making process for value assessment in business-to-business markets supply chain. Business-to-business are less explored in literature than business-to-consumer relations. Proposed approach adopts the Analytic Hierarchy Process due to its simplicity and flexibility in application.

Keywords: Analytic Hierarchy Process, business-to-business, value assessment.

1. Introduction

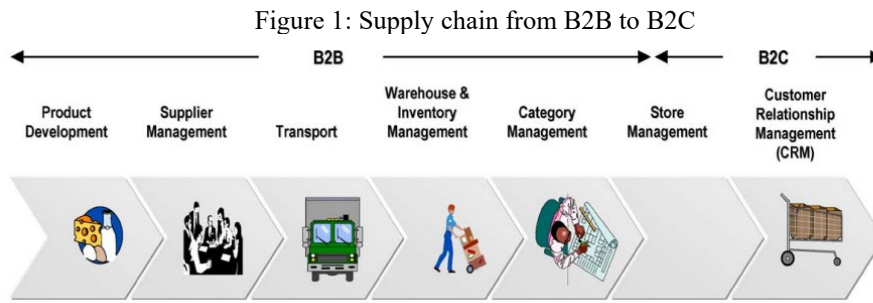
This paper offers a theoretical approach to value assessment (VA) in business-to-business (B2B) markets. Analytic Hierarchy Process (AHP) is applied to VA in supply chains. Analysis are proposed for manufacturing organizations. Bibliometrics identified trends and gaps in literature supporting this hypothesis.

B2B are commercial and partnership relations between corporations involving the transfer of raw materials, components and services. These relations once identified as networks are supply chains. Relations between a corporation and its solution's end-users are business-to-customer (B2C). To attain consumers' expectations on products or services, what is valued by customers shall be identified and embedded in supply chains. Thereafter, B2B market relations are relevant to be examined.

2. Literature Review

Value assessment is part of business strategies, enabling organizations to match customers' needs with accuracy and profit. This proposition is core to strategy and selection of business areas for industries to explore. Lilien (2016) points the disparity between academic researches covering B2B when compared to B2C, even being roughly equal in terms of economic value. Mishra et al. (2020) emphasize that B2B organizations can gain advantageous foothold in markets they serve by fully understanding customer's unique requirements. Al-Mudimigh et al, 2004 highlights, in Figure 1, the B2B and B2C relations in the supply chain.

AHP support complex decision problems due to its mathematical simplicity, flexibility (Sipah and Timor, 2010) and ability to quantify human perceptions (Navarro et al. 2015). It assists companies making more accurate business decisions, as the evaluation of strategies (Cheng and Li, 2001). Spite the existence of several multi-criteria methods, the concentration of studies using AHP reiterates it as a consolidated multi-criteria method (Salomon, 2018), justifying its selection.



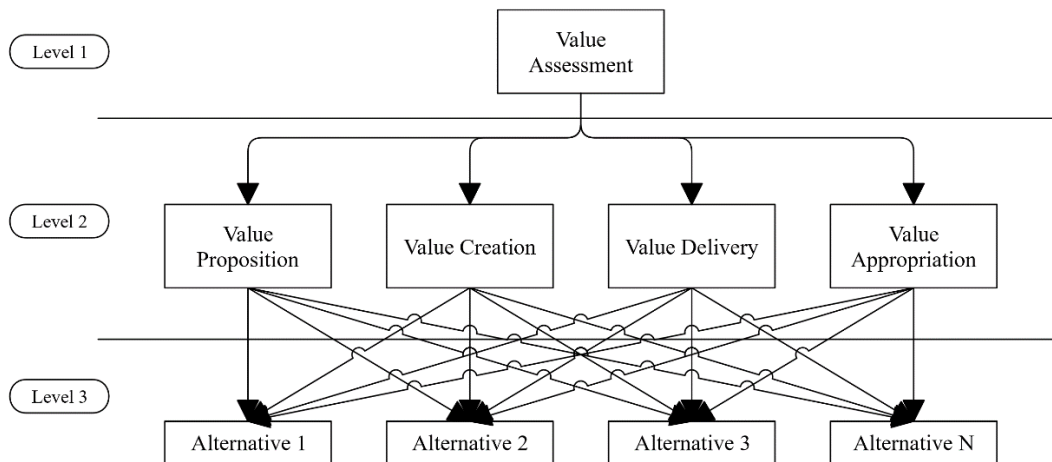
Source: Al-Mudimigh et al., 2004

3. Methodology

Ghezzi et al. (2015) proposes four dimensions of a business model: value proposition, creation, delivery and appropriation. If AHP method is employed on value identification in a B2B SC, market relations tend to become more dynamic, losses reduced, and final consumers will be delivered better goods.

Proposed research is designed to be accomplished with the application of AHP as presented in Figure 2, bringing Ghezzi’s four-dimensional values for business models as attributes (level 2). The value assessment function and attributes shall be performed for every criterion but consider the alternatives and specifications of each industry to be assessed.

Figure 2: AHP hierarchy for value assessment in a business model.



AHP contributions are on the process of identifying meaningful values given a corporate strategy. This theoretical scenario enables B2B SCs to work better once AHP rationally identify sound strategic goals. AHP is also relevant because values are not only to be identified, though a decision on which values to be adopted is to be made.

Once alternatives are identified and a set of values defined, AHP decisions/judgements are meant to be performed by a given industry directors and the management responsible of a specific SC, considering the existence of more than one in large and complex manufacturing organizations.

4. Conclusions

This paper objective was achieved as proposed. However, considering AHP application, the possibility of market researches use was not considered for VA. It is then assumed that proposed decision-makers have equitable access to information. Multi-Attribute Value Theory (MAVT) can be also employed, and its' results compared with those provided by the AHP. Such comparison can foster more robust results in VA. Furthermore, data simulations can also be integrated in future developments, on AHP applications for strategical business planning.

This paper offers a proposition for a future project. Regarding the decision-making process to be supported by VA, conclusion is that the presented hypothesis is valid and should be developed for data can be produced and then assessed.

REFERENCES

- Al-Mudimigh, A.S, Zairib, M. & Ahmedc, A.M. (2004). Extending the concept of supply chain: The effective management of value chains. *International Journal of Production Economics*, 87, 309–320.
- Cheng. E.W.L. & Li. H., (2001). Analytic hierarchy process: an approach to determine measures for business performance. *Measuring Business Excellence*, 5 (3), 30–36.
- Ghezzi, A., Cortimiglia, M.N. & Frank, A.G. (2015). Strategy and business model design in dynamic telecommunications industries: a study on Italian mobile network operators. *Technological Forecasting & Social Change*, 90, 346–354.
- Lilien, G.L. (2016). The B2B knowledge gap. *International Journal of Research in Marketing*, 33, 543–556.
- Mishraa, S., Ewingb, M.T. & Pittc, L.F. (2020). The effects of an articulated customer value proposition (CVP) on promotional expense, brand investment and firm performance in B2B markets: a text-based analysis. *Industrial Marketing Management*, 87, 264–275.
- Navarro, S., Garzónb, D. & Roig-Tierno, N. (2015). Co-creation in hotel–disable customer interactions. *Journal of Business Research*, 68, 1630–1634.
- Salomon, V.A.P. (2018). *Multi-Criteria Methods and Techniques Applied to Supply Chain Management*. London, UK: Intech Open.
- Sipah. S. & Timor, M. (2010). The analytic hierarchy process and analytic network process: an overview of applications. *Management Decision*, 48 (5), 775-808.