

RESEARCH ARTICLE

Triadic Models: *Triple S* Holistic Approach for Inter-relational Analysis in Business Management, Entrepreneurship and Marketing

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ABSTRACT

Background: The paper aims to reveal the research potential of triadic models by examining four such examples – in order to investigate and analyse a few basic concepts and elements in business management, entrepreneurship, and marketing areas: stakeholders' triad; project management triad; technopreneurship triad; and a proposed marketing management triad. So different in content, yet triadic models share same basic features. In the fourth case, the relationships between triad's elements are not only conceptual but operational as well. As the relationship between price and cost is the trivial profitability analysis, and the relationship between product's functionality and its cost is investigated by value analysis and engineering, the quantitative relationship between product's technical performance and its price is less visible in literature. Objective: This paper focuses on the novelty of technopreneurship concept and on the last triad example (marketing management triad), in order to emphasize the analysis potential of triadic models, by systematic investigation of the two-by-two inter-relationships, in a triple S holistic approach (synthetic, systemic, and synergic). Trying to bridge the literature gap, the author proposed a method to investigate the influence that a product's set of technical characteristics (technical performance) might have on the price of that specific product. Results: The results of this endeavour are twofold encouraging: (i) by underlying the investigation potential of triadic models, in general, and (in particular) the potential of the triadic model product-price-cost; and (ii) by implications for business managers, in general, and (in this particular case), for R&D (research and development) managers marketing managers – while designing their pricing strategies. Conclusion: Opening a discussion on triad-type models is worthy – as the above examples (selected from diverse business areas) demonstrate a solid research potential, bringing up new notions (as technopreneurship, technopreneurship) or deepening the study of existing concepts (pricing policy, technology family, competitiveness). The study of triadic models should be associated with the triple S holistic approach – either in a top-down methodology (as in case of project management triadic model) or bottom-up (cases of stakeholders' triad, technopreneurship triad).

Key words: Triadic model, Triple S holistic approach, stakeholders' triad, Technopreneurship triad, marketing management triad

INTRODUCTION

Originated in the mid-16th century from the French *triade* – via late Latin from Greek *trias* (three) – the noun *triad*, as defined by the Oxford dictionary, defines a group or set of three related things or people, considered as

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a unit (as a chord of three musical notes – a given note plus the third and fifth above it; and even a secret society, originally Chinese – typically known for being involved in organized crime).

Triad is a large denominator, met in various areas of general knowledge and science as well. Let's revisit just a few of them: triadic color scheme; political triumvirate (the first, in ancient Republican Rome: Caesar, Pompey and Crassus); triad literary form met in medieval Welsh and Irish literature; triads in chemistry, as the earliest atomic-weight classification of the elements (Döbereiner's Law of Triads, 1817). The "triple helix" model of university-industry-government as presented by Etzkowitz [1,2], launched as early as 1993, is a triad too. Or, the triad of the world economic geography: North America – Western Europe – Oriental Asia, as defined by Ohmae [3]. *Triade* is also the name of a well-known Dutch chemical company: *Chemische Fabriek Triade B.V.* (www.triade.nl)

Triadic Models: Triad-Based Models:

Triadic models are conceptual constructs of three inter-related elements as triads; however, they are not simple sets of three elements. Triad-type models are *systemic* (as the three elements of the triad are parts of the same system) and they have to be *synthetic*, emphasizing what is essential in each element as well as relevant inter-connections among them. A triadic model should also be *synergic*, displaying more features and potential of the investigated triad's elements, emphasizing higher value than the sum of features and potential of the three isolated elements, or even considered as three separate pairs of two-by-two. This is why the triadic models, by this *triple S holistic approach*, have more investigative power. Consequently, they prove to be both finer research tool for theorist scholars and decision making support for practical managers, entrepreneurs and policy makers.

Yet interesting and idea generating, it is beyond the purpose of this essay to analyse which set of three elements is, and what is not a triad. It rather offers several illustrative examples from economy, project management, entrepreneurship, and marketing. Consequently, more specifically, this paper aims at presenting four example-cases of triadic models used to investigate and analyse basic concepts and elements in the above mentioned areas: stakeholders' triad; project management triad – as schematized by the Project Management Institute [4]; *technopreneurship* triad – as introduced by Scarlat [5]; and a marketing management triad.

The paper focus is on the last cases (entrepreneurship-innovation-technology triad and product's cost-price-technical characteristics triad), which emphasize the analysis potential of the triadic models, by systematic investigation of the two-by-two inter-relationships, in a triple S holistic approach (*synthetic*, *systemic*, and *synergic*).

Example 1: The Stakeholders' Triad:

The stakeholders' triad (business owners, employees, clients) is an illustrative example of triadic model – used to describe a significant historical stage while developing a more and more comprehensive firm theory. Besides two-by-two tensions (business owners *versus* employees over salary level; business owners *versus* clients over price level; company's employees *versus* clients over product quality), this triadic model reveals the common interest of business stakeholders, in spite of their narrower group interests (profits, salaries, product quality/price ratio, respectively). The critical link is the successful existence of the firm itself – without which not a single group would be happy.

To note that the three-element set qualifies as a triadic model as long as it satisfactory serves the purpose (to describe the firm and its behaviour). To the contrary, just think at adding a fourth element (stakeholder) or, more subtle, at the case when the three-element construct is not enough exploited: failing to explain the common superior interest of all stakeholders.

The same basic three piece structure is used to define the concept of *total quality* as described by Kelada [10]: *total quality triad* in both private and public sectors [6: 40-43]. Further exploited, the total quality triad explains the concept of *total quality management* [6: 55-57).

Example 2: The Project Management Triad:

It is well-known among project management professionals the triangle-shaped graphical model of project management, showing the key-problem that project managers must solve: compromising the project cost *versus* its duration – yet reaching the project objective [4], in qualitative and quantitative terms. This is a good example-case of triadic model, satisfying the triple S condition.

If project's defining elements (cost, duration, and objective) are clearly part of the system "project" and they synthetically can describe the project, none of them is able to drive the project to its success, as the soft, intangible, but essential project management.

Example 3: The Technopreneurship Triad:

Built on Schumpeter's famous assertion of "entrepreneurship as innovation" [11], scholars have deepened and studied the inner relationship between the two related concepts [12, 13, 14, 15]. Peter Drucker [16] also reckons the organic link between innovation and entrepreneurship. Nevertheless, it also was Schumpeter [17] that

coined the word *Unternehmergeist*, German word for *entrepreneurial spirit* as "the doing of new things or the doing of things that are already being done in a new way".

By definition, the entrepreneur is an innovative character; in this respect, to discuss about *innovative entrepreneurship* sounds somehow pleonastic. However, Lynn and Lynn [18] have launched their book about turning new ideas into business under the title "*Innopreneurship*" – aiming to underline the importance of innovation in entrepreneurial activities.

According to Pol and Carroll [19], Schumpeter also identified innovation as the critical dimension of economic change: economic change *revolves around innovation, entrepreneurial activities, and market power*. He argues that *technological innovation* often creates temporary monopolies which are necessary to provide the incentive for firms *to develop new products and processes*. Specifically, technological innovativeness was studied by Antončič *et al.* [20] while models needed to analyse innovative technologies [21] or innovation potential of the firms [22] were extensively developed even in emerging economies as Romania.

The mutual influence and interdependence between technology and entrepreneurship were studied by many scholars as Cuero Acosta [23] and Alderete [24] – so that technology-based entrepreneurship (or technology entrepreneurship) starts to be known as *Techno-entrepreneurship*. E-commerce, e-payment, and mobile payment services are becoming a common place in contemporary business; e-entrepreneur and e-entrepreneurship are not meaningless. Actually, *there is a natural fit between [new] technologies and entrepreneurship*.

As far as relationship between the three elements, Schumpeter has made a case that *innovation and technological change come from entrepreneurs*. Technology development has continuously been a source of inspiration for entrepreneurs: biotechnology [25, 26, 27, 28], pharmaceuticals, new materials, communication and information technology [24, 26, 29, 30]; new technology, in general [31, 32].

It is obvious that scholars agree on the intimate interdependence between entrepreneurship, innovation, and technology. As result, corresponding studies are carried out and specialized journals publish them, more or less successfully. However, it is noteworthy that several journals are focused on interdisciplinary areas, two by two (entrepreneurship and innovation; innovation and technology; technology and entrepreneurship), which demonstrates the high level of interest among theorists and practitioners. In parallel, new words are enriching the vocabulary – as even the names of some journals demonstrate (*Technovation* = Technology and Innovation; *Technoentrepreneurship* = Technology and Entrepreneurship).

Following the trend, the virtues of the triple S holistic approach were exploited by Scarlat [5] in case of the triad entrepreneurship-innovation-technology; simultaneously, the common zone of inter-disciplinarity between all three areas of interest was called *technopreneurship*.

Nowadays an important part of new businesses are knowledge-based. Accepting that *technowledge* is an appropriate term for technology knowledge, then managing this particular type of knowledge as well as knowledge-based [new] technology businesses is a particular type of management – *technowledge management*. Therefore, *technowledgepreneurship might be a suitable term for technowledge entrepreneurship* [5].

Example 4: A Marketing Management Triad:

This example brings together any product's main elements (cost, price, and its capacity to satisfy the client's need/s – by its set of technical characteristics).

While the relationship between price and cost, under different angles, is clearly a finance issue, well-known as profit or profitability analysis [33, 34], the relationship between product's functionality and its cost is investigated by interdisciplinary approach of value engineering and value analysis [35] – which directs the research-development efforts, in close relationship with marketing research results.

Besides the debatable syntagma "price-quality ratio" (frequently used in advertising and/or sales as "*best price-quality ratio*"), there is not much [quantitative] literature on this subject. The problem possibly resides in the difficulty to assess in quantitative terms the product's quality or capacity to satisfy the customers – as result of product's sum of technical characteristics.

Trying to bridge this gap, the *Technical Distance* model (DISTEH), as named by Scarlat [36], ranks any number of different individual, substitutable products in the same category (satisfying the same needs) – according to their global score of technical performance; this score is a non-dimensional positive number (lower as the performance is better; "0" when the product has the ideal set of technical characteristics).

This allows in-depth investigation of the relationship between product's technical performance and its price. As result, the respective weights of the product's technical characteristics can be assessed and the new technology prediction realized [37]. The product's competitiveness can be analysed as well [38]. The DISTEH method is also a reliable instrument to build basis for pricing strategies and discount policies.

To sum up, this triadic model, supported by the DISTEH model and method to investigate complex relationship between two essential elements of the marketing mix (product and price), is a resourceful marketing management model – useful for business managers in several areas as: price setting strategies, technology prediction and development, profitability and competitiveness analysis.

Conclusions, Limitation And Implications:

Opening a discussion on triad-type models is worthy – as the above examples (selected from diverse business areas) demonstrate a solid research potential, bringing up new notions (as technopreneurship, knowledgepreneurship) or deepening the study of existing concepts (pricing policy, technology family, competitiveness).

The study of triadic models should be associated with the triple S holistic approach – either in a top-down methodology (as in case of project management triadic model) or bottom-up (cases of stakeholders' triad, technopreneurship triad).

The triadic models may have different natures but they share several noticeable characteristics:

- The three components are well defined elements (concepts, in general), suitable to be examined separately;

- Yet there are inter-relations between triad's elements, which can be considered in three two-by-two pairs, each investigation bringing up new sides and attributes;

- There could be various types of inter-relations (inclusion, overlapping; cause-effect; correlation), not dealing with the type and nature of each inter-relation certainly being a limitation of this essay, and, consequently, a further investigation avenue;

- The assembly of the triad's elements is a different, new construct (like a tripod with three legs or a temple with three pillars); hence, the need for *the Triple S holistic approach (synergy included)*.

The results of this endeavour are twofold encouraging: (i) by underlying the investigation potential of the triadic models, in general, and triadic model product-price-cost, in particular; and (ii) by implications for business managers, in general, and particularly for the marketing managers – in designing their product and pricing strategies – as well as R&D managers dealing with new technologies.

The examples of this paper were picked from different areas of business studies (theory of firm, project management, entrepreneurship, and marketing management) but the triple S approach is applicable for triadic models at large.

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