


# “Not dead yet: the rise, fall and persistence of the BCG Matrix”

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## Not dead yet: the rise, fall and persistence of the BCG Matrix

### Abstract

The BCG Matrix was introduced almost 50 years ago, and is today considered one of the most iconic strategic planning techniques. Using management fashion theory as a theoretical lens, this paper examines the historical rise, fall and persistence of the BCG Matrix. The analysis highlights the role played by fashion-setting actors (e.g., consultants, business schools and business media) in the rise of the BCG Matrix. However, over time, portfolio planning models such as the BCG Matrix were attacked and discredited by a host of different actors, and gradually fell out of favor. Even though the BCG Matrix has fallen from grace, it is still alive and has left an imprint on management education and practice. Despite being largely discredited in academic circles, many practitioners still view it as an important corporate portfolio planning technique.

**Keywords:** BCG Matrix, Boston Consulting Group, portfolio planning, strategic planning, management technique, rise, fall, persistence, emergence, evolution, institutionalization, management fashion.

**JEL Classification:** M00, M10.

### Introduction

**The BCG Matrix.** The Boston Consulting Group's Growth-Share Matrix (BCG Matrix) is a strategic planning technique that helps diversified corporations to allocate resources. Using the framework and simplicity of a 2x2 matrix, the BCG Matrix identifies so-called stars, question marks, cash cows and dogs. The BCG Matrix is a highly prescriptive management technique, offering clear and memorable recommendations (e.g., milk the cows, invest in the stars, divest the dogs and solve the question marks).

The BCG Matrix has been around for a long time. It was introduced by Boston Consulting Group with much fanfare almost half a century ago, and has left a long-lasting imprint on the fields of marketing and strategy. The BCG Matrix has been referred to as "one of the most iconic strategy frameworks of all time" (Whitehead, 2015), and an "archetypical grand panacea" (Nicholls, 1995; Russell-Walling, 2008, p. 20). In 2011, it was selected by Harvard Business Review as one of the five charts that "changed the world" (Ovans, 2011). The influential role of portfolio planning frameworks has also been noted elsewhere. For example, portfolio matrices are considered one of the "ten big ideas" in strategic thinking (Allio, 2006), and the BCG Matrix is considered one of the "50 management ideas you really need to know" (Russell-Walling, 2008).

New management techniques tend to have relatively short life cycles, and are often quickly overtaken and replaced by new fashionable techniques (Abrahamson, 1996; Carson, Lanier, Carson & Guidry, 2000). Being nearly 50 years old, the BCG Matrix can be considered somewhat of a dinosaur in management research and practice. Despite receiving heavy incoming heavy fire from skeptical researchers, as well as consultants and

management gurus offering newer techniques and solutions, the BCG Matrix has showed remarkable staying power and longevity. Although it is evident that the popularity of the BCG Matrix has declined since its heydays during the 1970s, it is still widely used as a corporate portfolio planning technique by practitioners (Pidun, Rubner, Krühler, Untiedt & Nippa, 2011).

**Purpose and contribution.** Against the background outlined above, the purpose of the current paper is to provide an examination of the historical evolution of the BCG Matrix. Although this paper is not the first to provide a historical examination of the BCG Matrix (Morrison & Wensley, 1991), earlier contributions are by now quite dated. It is the author's view that this warrants a re-examination taking into account developments in the BCG Matrix's evolution pattern over the last 25 years.

This study also utilizes a different theoretical lens; the management fashion perspective (e.g., Abrahamson, 1996; Kieser, 1997). This perspective has, to the best of the author's knowledge, not been applied in previous studies of the BCG Matrix. While Morrison and Wensley (1991) suggested that fashion, consulting firms and communication networks could have played a role in the popularization of the BCG Matrix, their examination did not draw explicitly on management fashion theory. Morrison and Wensley (1991, p. 124) called the BCG Matrix "a case history in successful innovation and diffusion of a particular analytical framework". In light of this quote, re-analyzing the emergence and evolution of the BCG Matrix from a management fashion perspective may provide new insights.

**Research approach.** The research approach followed in this paper is explorative and theoretical. Based on a close reading of both practitioner-oriented and scholarly literatures on the BCG matrix, this paper synthesizes different accounts on the historical emergence and evolution of the BCG Matrix. The author has followed a similar research approach in studies of other popular management concepts and ideas (see, e.g., Madsen, 2016a; Madsen & Johanson, 2016; Madsen & Stenheim, 2016).

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The aim of the paper is to uncover an “overall picture” of the way the BCG Matrix has evolved as a management technique over time. In a prior historical examination of the BCG Matrix, Morrison and Wensley (1991, p. 116) argued in favor of a similar approach: “the factors described do “fit” together to form a mosaic picture of the period, which provides a plausible narrative understanding of the success of the BCG ideas”.

The remainder of the paper follows the following structure. Section 1 provides a brief history and overview of the BCG Matrix. In section 2 the BCG Matrix is examined as a fashionable management technique. This includes an analysis of its key characteristics that are important to understand its subsequent evolution. In section 3 and 4 the supply and demand sides of the BCG Matrix are analyzed. In section 5, themes related to the BCG Matrix’s emergence and evolution are discussed in the context of the management fashion literature. Finally, the last section highlights the study’s contributions, and discusses limitations, as well as presents some ideas for future research on the BCG Matrix.

**1. A brief history of the BCG Matrix**

This section examines the historical emergence of the BCG matrix. The section is divided into three parts. The first part sketches the basics of the BCG Matrix, while the second provides a brief history of the BCG Matrix. The last part sketches important historical Zeitgeists in the management discipline and community that have shaped the evolution pattern of the BCG Matrix.

**1.1. The basics of the BCG Matrix.** The BCG Matrix is a strategic planning technique that can be used for portfolio planning in diversified firms. Visually the BCG Matrix is presented as a two-by-two matrix (Table 1), where the two dimensions are market share (high share, low share) and market growth rate (high growth, low growth). The matrix can be used to sort and categorize different businesses into so-called stars, cows, dogs and question marks. The BCG offers, as Allio (2006) calls them, “notorious resource allocation prescriptions” for managers, i.e., milk the cows, divest the dogs, invest in the stars, and analyze the question marks.

Table 1. The BCG Matrix

	High market share	Low market share
High market growth	<i>Star</i>	<i>Question mark</i>
Low market growth	<i>Cash cow</i>	<i>Dog</i>

**1.2. The historical emergence of the BCG Matrix.** In the introduction of this paper, the BCG Matrix was referred to as somewhat of a dinosaur in the management discipline. The BCG Matrix was introduced by the Boston Consulting Group (BCG) about 50 years ago. The exact birthdate of the BCG Matrix can be somewhat difficult to establish. Most, including BCG,

argue that it dates back to 1970 (Pidun et al., 2011; Reeves, Moose & Venema, 2014) when Bruce Henderson’s article “The Product Portfolio” was published in BCG Perspectives (Henderson, 1970). Others, however, including Harvard Business Review, point to 1968 (Ovans, 2011; Russell-Walling, 2008, p. 21), or even the mid-1960s (Allio, 2006, p. 6).

The name “BCG Matrix” reveals that BCG played the key role in the creation and development of this management technique. Management history scholars have shown that BCG was a major player in the strategy consulting business during the 1960s (McKenna, 2012; Payne, 1986). Bruce Henderson, who founded BCG in 1963, is commonly credited as the creator of the BCG Matrix. However, Henderson was not alone in these efforts; rather, it was a group effort. For example, Seymour Tilles<sup>1</sup>, another founding partner of BCG, wrote an article about portfolio planning in Harvard Business Review in 1966 (Tilles, 1966). According to Tilles, the firm should be seen as a portfolio of businesses, a line of thinking that is a cornerstone of the BCG Matrix.

According to Morrison and Wensley (1991), the early development of the BCG matrix was not based on theory, but largely based on practical experiences picked up in actual consulting work. The role of interaction with practitioners in the early development of the BCG Matrix has also been by noted by other authors. For example, Cummings and Daellenbach (2009, p. 258) pointed out that: “We should not forget that some of the most popular and long lasting strategy frameworks mentioned at the outset of this article were first thought out by such seasoned senior executives interacting with consultants and academics. The Growth-Share Matrix, for example, emerged when BCG consultants brainstormed and doodled with think-tankers and managers from the Mead Paper Corporation”.

Morrison and Wensley (1991, p. 110) point out that the BCG Matrix was revised during the 1970s. For example, Henderson wrote a series of books and articles where the BCG Matrix was developed further (Henderson, 1970, 1973, 1979, 1984). The BCG Matrix has also been featured in more recent BCG publications on strategy (Stern & Deimler, 2012; Stern & Stalk, 1998).

**1.3. A brief sketch of the historical Zeitgeists shaping the emergence and evolution of the BCG Matrix.** This part sketches the historical Zeitgeists (i.e. dominant set of ideas and beliefs) that have shaped the evolution pattern of the BCG Matrix. Describing the successive Zeitgeists since the BCG Matrix’s introduction is important, as Kieser (1997) points out that timing and Zeitgeist plays important role in determining whether new management concepts become popular and fashionable. Furthermore,

<sup>1</sup><http://www.nytimes.com/1999/07/21/business/seymour-tilles-74-management-consultant.html>

changes in Zeitgeists may shape the evolution pattern of management concepts. For example, popular concepts could fall out of favor if they no longer fit well with the dominant set of ideals and beliefs in the management community.

*1.3.1. 1960s and 1970s: the rise of strategic planning and corporate portfolio management.* The 1960s and 1970s were fertile soil for the introduction and popularization of the BCG Matrix. During the 1960s and 1970, there was a strong focus on corporate diversification and conglomeration (Ramanujam & Varadarajan, 1989). In diversified companies and conglomerates, a key issue was how to allocate funds to different businesses in the conglomerate. This meant that it became important to develop tools and techniques that could help with portfolio planning and corporate portfolio management.

The BCG Matrix was presented as a solution to these issues. BCG extensively promoted the conglomerate form during the 1960s and 1970s, and the BCG Matrix was positioned as a particularly useful tool for managing corporate portfolios (McKenna, 2012). The BCG Matrix was promoted as a planning technique that could help managers to make better portfolio planning decisions and more effectively allocate resources between different businesses.

In large part due to its natural fit with the Zeitgeist in the business community, the BCG Matrix attracted a large share of public management discourse during this period. As noted by Untiedt, Nippa and Pidun (2012), the BCG Matrix took center stage as a management technique from 1960s to mid-1980s.

*1.3.2. 1980s: conglomerates and portfolio planning models no longer in vogue.* Although the BCG Matrix was going strong during the 1970s, there were some signs that the honeymoon period was over. Ghemawat (2002) notes that in the late 1970s portfolio planning tools came under attack. Due to the financial problems of the 1970s, there was a general criticism of managerial practice (Hayes & Abernathy, 1980). This led to critical examinations of contemporary management practices and a search for other and better managerial techniques.

Hence, it can be argued that the BCG Matrix started to face some headwinds already during the late 1970s. During the 1980s, things got worse for the BCG Matrix. As shown by Davis, Diekmann and Tinsley (1994), the conglomerate model was delegitimized and deinstitutionalized by different actors. This led to associated portfolio planning techniques such as the BCG matrix to go out of fashion. Critics hammered away at the pitfalls in portfolio planning (Coate, 1983). As Gluck (1985) puts it, American managers' love affair with strategic planning (and strategic planning techniques such as the BCG Matrix) was fading.

*1.3.3. 1990s and beyond.* By the 1990s, there was less demand for traditional strategy consulting, and instead the focus shifted to new buzzwords such as "strategy implementation" and "strategy execution" (Prahalad & Hamel, 1994). As a result, strategy consultants "readjusted their wares to cope with the new client demand" (Prahalad & Hamel, 1994, p. 5). Leading strategy consulting firms such as McKinsey and BCG readjusted their traditional consulting repertoire to focus more on implementation and efficiency (Prahalad & Hamel, 1994, p. 5).

During the 1990s there was much "academic disillusionment" with prevailing schools of thought within the field of strategy (Prahalad & Hamel, 1994, p. 5). For example, the strategic planning school had until the 1990s enjoyed a dominant position within the field of strategy. The strategic planning school was heavily criticized by leading strategy scholars, in particular Henry Mintzberg who presented a more fluid and dynamic view of the strategic planning process (Mintzberg, 1994a, b). Hence, the 1990s and 2000s did not provide a friendly environment for the BCG Matrix. The shift from viewing the firm as portfolio to viewing the firm as a network (Davis et al., 1994) meant that the BCG Matrix was largely out of step with the zeitgeist in the business community.

## **2. The BCG Matrix viewed from a management fashion perspective**

So far, the focus has been on the historical emergence of the BCG Matrix and the Zeitgeists that have shaped its evolution pattern. In this section, the focus shifts to viewing the BCG Matrix from a management fashion perspective. After a short introduction to the management fashion perspective, the characteristics of the BCG Matrix are analyzed. These characteristics have influenced the popularity and evolution of the BCG Matrix. The characteristics of the BCG Matrix have, however, left it vulnerable to attacks. The last part reviews different types of criticism that have been leveled at the BCG Matrix.

**2.1. The management fashion perspective.** The management fashion perspective focuses on studying upswings and downswings in the popularity of management techniques (Abrahamson, 1991, 1996; Kieser, 1997; Newell, Robertson & Swan, 2001). A key focus of management fashion research is on explaining why some management techniques become widely and rapidly diffused, while others do not (for a review, see, e.g., Madsen & Stenheim, 2013).

There are several definitions of the term "management fashion". In the most widely cited article on management fashion, Abrahamson (1996, p. 257) defines management fashion as "a relatively transitory collective belief, disseminated by management fashion setters, that a management technique leads rational management progress".

According to management fashion theory, the diffusion and popularization of new management techniques is viewed as taking place within a management fashion market, and the evolution of management techniques are shaped by both supply side and demand side forces.

On the supply side of management actors, there is a “fashion-setting community” (Abrahamson, 1996) or “management fashion arena” (Jung & Kieser, 2012) comprised of actors promoting and propagating management techniques. These actors include consulting firms, management gurus, software firms, business media, conference organizers, and professional organizations (Clark, 2004b). The demand side of management fashions is made up of organizations and managers considering adopting new management techniques.

Although the management fashion perspective stresses the role played by supply side actors (e.g., consultants) in influencing the popularity of new management techniques, by creating a “fashion wave” and bandwagon effects (Benders, 1999; Kieser, 1997), researchers have also pointed out that some management ideas are more “potent” and contagious than others (Benders & Van Veen, 2001; Røvik, 2002), i.e., they have a higher popularity and fashion potential. In the subsequent sections, the popularity potential of the BCG Matrix is analyzed.

**2.2. Analysis of the characteristics of the BCG Matrix.** In the following, the focus shifts to an analysis of the key characteristics of the BCG Matrix. This discussion elaborates on four characteristics that are typically emphasized in the literature on fashionable management concepts and ideas (Kieser, 1997; Røvik, 1998, 2002): (1) catchy label, (2) performance enhancements, (3) interpretive space, and (4) universality. These characteristics have influenced the popularity of the BCG Matrix, and have implications for how the BCG Matrix has evolved over time as a management technique.

**2.2.1. Catchy label.** In the literature on management concepts and ideas, it is pointed out that fashionable management techniques are typically labeled in a distinctive way, often using a fancy and catchy label (Røvik, 1998). In many cases, a two or three letter acronym are used (Grint, 1997; Røvik, 1998). This is certainly the case for the BCG Matrix, where the three-letter acronym BCG is an abbreviation of the name of the consulting firm Boston Consulting Group. However, as Table 2 shows, the BCG Matrix is known by several different names. In particular, the label “growth-share matrix” is frequently used in both academia and practice. Other less common labels include the “BCG zoo” (Karlöf & Helin Lövingsson, 2005) and the “BCG Grid” (Lowy & Hood, 2011).

Table 2. Variations of the BCG Matrix label

Variation	References
“BCG Box”	McKenna (2012); Morrison and Wensley (1991)
“Boston Box”	Godfrey (2015)
“Boston Matrix”	Russell-Walling (2008)
“Growth-share matrix”	Hindle (2008)
“Share/Growth matrix”	Morrison and Wensley (1991)
“BCG zoo”	Karlöf and Helin Lövingsson (2005)
“BCG Grid”	Lowy and Hood (2011)

In the following, the focus is on the label “BCG Matrix”. Several researchers have noted that this label is easy to remember (Armstrong & Brodie, 1994) and “memorable” (Jarzabkowski & Kaplan, 2015). Related to this point, Spee and Jarzabkowski (2009) write that “clearly designed tools such as the BCG matrix are easier to remember”. In addition, as Lowy and Hood (2011, p. 169) have pointed out, most people, at least those with business and management backgrounds, will think of the BCG matrix when hearing the term “2x2 matrix”.

Researchers have pointed out that the BCG Matrix is one of the most iconic and memorable labels in the fields of strategy and marketing. For example, the BCG matrix has become part of the “language of business strategy” (Seeger, 1984) and according to “standard popular terms and a convenient shorthand in strategic discussions” (Lowy & Hood, 2011, p. 169).

**2.2.2. Performance improvements.** Another key characteristics of management fashions is that proponents of new management innovations tend to promise substantial performance improvements in case of adoption (Benders & Van Veen, 2001; Røvik, 1998). After all, potential adopters are unlikely to adopt unless they perceive potential benefits (Benders, 1999). The BCG Matrix is accompanied by promises of potential performance improvements. Morrison and Wensley (1991, p. 110) point out that Bruce Henderson of BCG made a “very grand and provocative claim for his matrix”. Henderson (1973, p. 6) argued that “such as a single chart, with a projected position for five years out, is sufficient alone to tell a company’s profitability, debt capacity, growth potential and competitive strength”.

BCG positioned the BCG Matrix as a prescriptive model that would be highly useful (i.e., performance enhancing) in conglomerate-type organizations, an organizational form that was in vogue during the 1970s. The BCG matrix allowed managers to view the firm as a portfolio. The matrix showed which businesses were dogs, cash cows, stars, etc. In other words, the Matrix helped to sort a conglomerate’s different businesses into useful categories (Armstrong & Brodie, 1994) and gave managers clear recommendations and prescriptions, e.g., sell dogs, harvest cows, and invest in stars.

The BCG Matrix could also potentially increase performance in other ways. For example, there is an implicit assumption that the BCG Matrix will help managers to stay in control and manage their businesses more effectively. For example, Ernst and Kieser (2000, p. 8) argue that tools like the BCG matrix “create the impression that processes that hitherto appeared difficult to manage are kept under control”.

However, over time, researchers have pointed out that the performance enhancing effects of the BCG may be overstated, and that in some situations, adoption of the BCG Matrix could actually reduce performance. For example, Armstrong and Brodie (1994) found that the BSC matrix was ineffective. The case for portfolio planning techniques such as the BCG Matrix has also been weakened by findings in the organizational literature that suggest that market diversification is superior to corporate diversification (Untiedt et al., 2012).

**2.2.3. Interpretive space.** Another typical characteristic of management fashions is that they are vague and can be interpreted differently by different actors (Benders & Van Veen, 2001; Clark, 2004a; Giroux, 2006). Although the BCG Matrix is a rather clearly designed management technique, it is interpreted and has different meanings for different actors operating in different contexts (Spee & Jarzabkowski, 2009). In the words of Lowy and Hood (2011, p. 169), “what has made the framework so powerful and enduring is its amazing breadth; not only is it a method for structuring strategic priority-setting discussions, it also represents a business typology, making it possible for planners to think about a portfolio of holdings from an investment perspective”. In other words, the BCG Matrix can be interpreted and used in different ways, as actors apply it in relation to their own organization-specific issues and problems.

**2.2.4. Universality.** Finally, a fourth characteristics of management fashions is that they are typically presented as universal in nature (Røvik, 1998; Strang & Meyer, 1993). Presenting a management technique as universally applicable obviously increases the size of the potential adopter market (Fincham & Evans, 1999; Røvik, 2007). McKenna (2012) points out that BCG followed an universalistic approach when developing techniques such as the BCG Matrix. BCG consultants claimed that their theories “were universally applicable across all industries in part because the BCG consultants had to overcome the potential liability that they were not trained as industry specialists” (McKenna, 2012, p. 154).

The universality of the BCG Matrix also has implications for its use by actors on the demand side (i.e., managers). For example, the BCG Matrix is so simple and intuitive that no particular expertise is required in applying it. The matrix has an intuitive appeal (Day,

1977) that could explain its popularity in practice. This simplicity makes the BCG Matrix appealing to busy managers. Others have pointed out the powerful imagery and visual impact of the BCG Matrix (Morrison & Wensley, 1991). The BCG Matrix is simple and powerful, in much the same way as other strategic tools and frameworks such as SWOT analysis and Porter’s Five Forces framework.

**2.3. Critical perspectives.** In this section, the focus shifts to critical perspectives on the BCG Matrix. Although several of the characteristics mentioned above helped to propel the BCG Matrix to the center stage in the business community in the early 1970s, they became vulnerabilities, as the BCG Matrix came under attack in the late 1970s and the early 1980s. It is particularly academic researchers who have led the attack on the BCG Matrix. As Table 3 shows, several lines of criticism can be identified.

First of all, the BCG Matrix has been criticized for being *reductionist* (Mintzberg, Ahlstrand & Lampel, 2005, pp. 96-97). Critics point that the BCG Matrix builds on the so-called “design school model” that emphasizes the firm’s external environment and internal capabilities. However, it has been noted that the BCG Matrix only utilizes only one key dimension for each of these two categories, and the 2x2 matrix, therefore, results in only four generic strategies and prescriptions.

Related to this reductionism critique, researchers have also pointed out that the BCG Matrix may be *too simple*. Brindle and Stearns (2001, p. 119) referred to the BCG Matrix as “a simple tool for a pretty tall order”. In the same vein, Hambrick and MacMillan (1982, p. 84) wrote that “the simplicity of the matrix and its edicts is alluring, but some argue that it all seems too simple”. Seeger (1984) argues that this may lead to “oversimplified prescriptions for action which students and managers may attach to the images: we should kick the dogs, cloister the cows, and throw our money at the stars”.

The BCG Matrix has also been criticized for being *mechanistic* (Wilson, 1994). Some argue that using a single management technique such as the BCG Matrix may not be sufficient in increasingly “dynamic” and turbulent business environments (cf. Hamel & Prahalad, 1994; Kaarbøe, Gooderham & Nørreklit, 2013).

Other critics have pointed out that the BCG Matrix is presented in a *seductive* way. Managers may be seduced by the BCG Matrix, because it presents the world using dichotomies, and decisions are portrayed as choices between mutually exclusive alternatives (ten Bos, 2000, p. 35). Related to this, is the observation that portfolio matrices have become somewhat of an “article of faith” in the marketing community (Ardley, 2008) and the observation that the BCG Matrix is “folklore” (Armstrong, 1996).

The BCG Matrix is also arguably too *generic*. This line of criticism is related to the notion of universality discussed in subsection 2.3.4. In the words of Wright, Paroutis and Blettner (2013, p. 110), the BCG Matrix is “too generic/cannot help users to focus on the problem, do not provide a clear picture of different areas, do not guide users to form good thinking path, do not help users to think about the company’s value, and are considered too broad”.

Despite the simplicity and generic nature of the BCG Matrix, practitioners have a *modest understanding* of it. For example, Grønhaug (2002, p. 367) noted that the understanding of the assumptions and applicability of the BCG Matrix among potential users such as business students is “often modest.”

Finally, the BCG Matrix is frequently *misapplied* in practice (Knott, 2006). As Johnson, Scholes and Whittington (2008) point out, it can be hard to determine what constitutes high or low market share or high or low market growth. This makes it difficult to place businesses/products in the four quadrants. Critics have also pointed out use of the BCG Matrix can lead managers to make worse decisions (Armstrong & Brodie, 1994). One commentator has referred to it as “the Marlon Brando of management tools – brilliant, fêted, poorly deployed and then discredited” (Russell-Walling, 2008, p. 20).

Table 3. Criticism of the BCG Matrix

Criticism	References
Reductionist	Mintzberg et al. (2005, p. 96-97)
Oversimplification	Brindle and Stearns (2001, p. 119); Hambrick and MacMillan (1982, p. 84)
Mechanistic	Wilson (1994)
Seductive	Ardley (2008); ten Bos (2000, p. 35)
Generic	Wright et al. (2013, p. 110)
Modest understanding	Grønhaug (2002, p. 367)
Misapplication	Johnson et al. (2008); Knott (2006)

**2.4. Summary.** In this section, the characteristics of the BCG Matrix have been analyzed. The analysis has shown that the BCG Matrix exhibits several of the characteristics that give management techniques “the ability to flow” (Røvik, 2002) and become fashionable. These inherent characteristics, in particular a very high degree of universality and perceived performance improvements, are important in explaining the BCG Matrix’s rise in popularity in the business community.

However, the analysis has also presented various critical perspectives on the BCG Matrix. Several of the characteristics that served the BCG Matrix well in the upswing phase, e.g., its simplicity and universality, became vulnerabilities when the BCG Matrix came under fire by actors seeking to undermine and discredit the BCG Matrix during the late 1970s and 1980s.

### 3. The supply side of the BCG Matrix

In this section, the focus shifts to the supply side of the BCG Matrix. The supply side consists of those actors involved in the promotion and propagation of the BCG Matrix. This section begins with a broad description of the different supply side actors involved in the “fashion-setting community” or “fashion arena” around the BCG Matrix, before the role and activities of each actor type are analyzed in more detail.

#### 3.1. The field of actors around the BCG Matrix.

This section provides a broad overview of the most influential actors who have been involved in diffusing and popularizing the BCG Matrix around the world (Table 4). As can be seen, in particular consulting firms have played a leading role in the diffusion and popularization of the BCG Matrix. Business schools have also played a key role in the diffusion and legitimization of the BCG Matrix. Prestigious user organizations have had some influence as model firms and well-known users of portfolio matrices.

Other actors types have been of lesser importance. For example, the conference/scene and the management gurus that speak at such events have been of relatively low importance. Software firms and social media have also been of little relevance in the case of the BCG Matrix. Even in later years, software firms have not really been involved. This may be due to the relatively simple nature of the BCG Matrix, which does not create much of a need for software solutions. In addition, the BCG Matrix is not getting much attention on social media compared to other contemporary management ideas (Madsen & Slåtten, 2015b). One explanation for the lack of attention on social media is that the BCG Matrix is perceived as old news in the management community. After all, the historical review in this article has shown that “portfolio matrix wave” took place years prior to the advent of the Internet and social media.

Table 4. The most important actors involved in diffusing the BCG Matrix

Actor type	Examples of activities
<i>Consulting firms</i>	Boston Consulting Group, McKinsey, Arthur D. Little
<i>Business schools</i>	Business school curriculum, textbooks, research topic
<i>Business media</i>	Media articles
<i>Influential user organizations</i>	High-profile users of portfolio matrices (GE, Mead Paper, American Standard)

**3.2. Consulting firms.** In the literature on popular management concepts and ideas, researchers have found that consulting firms typically play a very central role in the diffusion, popularization and institutionalization of new management techniques (Heusinkveld, 2013; Heusinkveld & Benders, 2012; Jung & Kieser, 2012).

In his seminal article on management fashion, Abrahamson (1996, p. 266) even used BCG as an example, and pointed out that BCG consultants played a key role as fashion-setters in the creation and launch of the BCG Matrix.

However, BCG has not been the only consulting firm involved in diffusing and popularizing variants of the BCG Matrix. Due to rapidly growing interest in the BCG Matrix during the 1970s, it did not take long for BCG's competitors to sense a lucrative market opportunity, and to start fighting for a slice of this market. Other consulting firms such as Arthur D. Little and McKinsey jumped on the portfolio matrix trend during the 1970s, and developed and launched their own competing matrices. As Hindle (2008, p. 96) notes, "The growth share matrix started a fashion for matrices among management consultants. For a while, no self-respecting report or theory was complete without one."

It has also been pointed out that actors promoting the BCG Matrix may have been motivated by self-interest. To this point, Morrison and Wensley (1991, p. 116) note that "BCG and other consultancies made great efforts to introduce portfolio planning because of self interest". In the management fashion literature, it is pointed out that actors in large part are motivated by self-interest (Kieser, 1997; Klineciewicz, 2006).

Hence, a number of consulting firms started offering portfolio planning tools (Coate, 1983; Ghemawat, 2002; Karlöf & Helin Lövingsson, 2005; McKenna, 2012; Proctor & Kitchen, 1990; Wensley, 1981). By the early 1980s, there were several competing portfolio matrices in use (Wind & Mahajan, 1981). Table 5 provides an overview of several of these competing matrices. In other words, the "firm-as-portfolio" model was promoted by most management consulting firms (Davis et al., 1994, p. 553).

In the following, the portfolio matrices offered by three of the leading strategy consulting firms in this period (Boston Consulting Group (BCG), McKinsey, and Arthur D. Little) will be described in greater detail.

**3.2.1. Boston Consulting Group (BCG).** Since this article focuses primarily on the BCG Matrix, it is natural to start with BCG's role in the market for portfolio matrices. BCG's work with portfolio matrices started in the last half the 1960s. As mentioned, BCG started the portfolio matrix "craze" with the introduction of the BCG Matrix in the late 1960s and naturally named its new technique after itself (O'Shea & Madigan, 1997). The BCG Matrix's rapid rise in popularity helped establish BCG's standing as a leading strategy consulting firm (Lowy & Hood, 2011). BCG has continued to reference the BCG Matrix in their more recent publications on strategy (Stern & Deimler, 2012; Stern & Stalk, 1998) and refers to it as a "BCG Classic" (Reeves et al., 2014).

**3.2.2. McKinsey.** The conglomerate General Electric (GE) hired McKinsey to help with planning and management of their portfolio of business units (Russell-Walling, 2008, p. 22). As a result of this collaboration, the BCG Matrix was developed and refined into a new matrix. This new matrix became known as the GE McKinsey Matrix. The GE McKinsey Matrix was a nine-cell matrix and an extension of the BCG Matrix (Sood, 2010) and the "what is probably the best known alternative" (Morrison & Wensley, 1991, p. 112). Proctor (2014, p. 29) traces it back to a Business Horizons article in 1975.

In other contributions, it has been referred to as the directional policy matrix (Johnson et al., 2008, p. 280) or the GE Business Screen (Griffin, 2016, p. 82). Instead of using market growth and market share as the two dimensions, McKinsey used industry attractiveness and business strength (Ghemawat, 2002). The GE Matrix is arguably more detailed and sophisticated than the BCG Matrix (Russell-Walling, 2008), and it has been called an "improvement" on the BCG Matrix (Proctor & Hassard, 1990).

**3.2.3. ADL and other actors.** The consulting firm Arthur D. Little developed yet another alternative to the BCG Matrix. It was called the ADL multifactor portfolio model (Patel & Younger, 1978). As noted by Karlöf and Helin Lövingsson (2005), both Arthur D. Little and McKinsey made 3x3 matrices. Allio (2006, p. 6) notes that Arthur D. Little presented a 4x5 matrix with industry maturity and competitive positions as the variables. Proctor (2014, p. 33) notes that it can be considered a hybrid of the BCG matrix and a multifactor matrix.

There are also some lesser known alternatives introduced by other actors. For example, the Shell Chemicals Directional Policy matrix was introduced by Robinson, Hichens and Wade (1978). Proctor (2014, p. 31) points out that this matrix is very similar to the GE/McKinsey matrix. Finally, the MCC decision matrix was another "modern" alternative to the BCG Matrix using mission and core competencies as the axes of the matrix (Nicholls, 1995).

Table 5. Portfolio matrices offering by leading consulting firms

Consulting firm	Version	Description	References
<i>BCG</i>	BCG Matrix (growth-share matrix)	2x2 matrix (Four-cell matrix)	Morrison and Wensley (1991)
<i>McKinsey</i>	GE McKinsey Matrix	3x3 matrix (Nine-cell matrix) An extension of the BCG Matrix	Johnson et al. (2008)
<i>Arthur D. Little</i>	ADL multifactor portfolio model	3x3 matrix or 4x5 matrix	Patel and Younger (1978); Proctor (2014, p. 33)



Table 5 (cont.). Portfolio matrices offering by leading consulting firms

Consulting firm	Version	Description	References
Other	Shell Chemicals Directional Policy matrix	3x3 matrix Similar to the GE/McKinsey matrix	Robinson et al. (1978)
	MCC decision matrix	2x2 matrix Modern alternative Mission (M) and Core Competencies (CC) as the two axes	Nicholls (1995)

3.2.4. *Recent developments.* Over time, portfolio matrices have gradually slipped into the background, and are typically not marketed as strongly by the leading strategy consulting firms. Portfolio matrices are seldom among the concepts and ideas that are presented on public display on consultancy websites etc.

However, BCG is still proudly referring to the BCG Matrix as a “BCG Classic” in their online magazine BCG Perspectives (Reeves et al., 2014). BCG argues that the BCG Matrix continues to be relevant and proposes the “BCG Matrix 2.0 in Practice” taking into account aspects of the modern business environment (Reeves et al., 2014).

**3.3. Business schools.** Business schools play an important role in the diffusion and institutionalization of management knowledge (Abrahamson, 1996; Hedmo, Sahlin-Andersson & Wedlin, 2005; Sahlin-Andersson & Engwall, 2002). Academics publish articles about new concepts and ideas, and teach new concepts and ideas in business schools, in particular at the MBA and executive education level. Business schools may, therefore, play an important role in creating awareness about and legitimizing new management techniques, by given them a stamp of approval.

The role of business schools has been noted in prior research on the BCG Matrix. Morrison and Wensley (1991, p. 113) noted the role of the Harvard network in the early popularization of the BCG Matrix: “It is possible that, at its inception, the BCG Matrix was “launched” through Henderson’s lines of communication with the Harvard Business School and the corporations connected in various ways to that institution, as well as by direct consultancy work”.

3.4.1. *MBA and management education.* The BCG Matrix has been covered extensively in US business administration education (Armstrong & Brodie, 1994). The BCG Matrix is commonly taught in strategy courses (Wright et al., 2013), e.g., at the MBA level. This means that the BCG Matrix will be part of the toolbox of aspiring managers and consultants, alongside other strategy tools such as Porter’s Five Forces and SWOT Analysis. Mintzberg (2004) argues that the BCG brand name over time has become “imprinted” in management education.

3.4.2. *Textbooks.* Although the BCG Matrix has been overtaken in popularity by newer strategy tools, it is still commonly referred to in marketing and strategy textbooks, as well as in MBA education. It is featured in most strategy and marketing textbooks (Griffin, 2016, pp. 79-81; Johnson et al., 2008, pp. 278-280). Furthermore, the BCG matrix is described in the numerous handbooks on management and strategy tools (Bensoussan & Fleisher, 2012; Birkinshaw & Mark, 2015; Hindle, 2008; Karlof, 1989; Karlöf & Helin Lövingsson, 2005; Van den Berg & Pietersma, 2015).

However, the coverage of the BCG Matrix in textbooks has not been all positive. For example, the negative aspects of the BCG Matrix have been laid out in influential textbooks (Johnson et al., 2008). Today, the BCG Matrix no longer occupies a central place in most textbooks, and instead has been relegated to a relegated a historical curiosity or footnote. In the words of Phelan (2005, p. 2), “References to the BCG matrix have disappeared from graduate textbooks and academic journals, and are slowly being phased out of undergraduate and marketing text except, perhaps, as historical footnotes”.

3.4.3. *Research topic.* The BCG Matrix’s popularity as a subject of academic research has also changed over time. In the aftermath of the rise in popularity of the BCG Matrix during the 1970s, many academics wrote articles about the BCG Matrix. Phelan (2005) notes that in 1982, six major academic journal articles about the BCG Matrix were published.

Academics tend to take a critical stance towards new management trends, especially those propagated by consulting firms and gurus. This skeptical attitude has also been seen in the case of the BCG Matrix, and the academic criticism surfaced relatively early. Morrison and Wensley (1991, p. 116) wrote that “whilst the US business community was revelling in their “new” discovery, the academic community was busy dissecting the BGG and other matrices, and evaluating their failings and shortcomings”. At the same time, Morrison and Wensley (1991) point out that this early criticism did not necessarily have a negative effect on its popularity among organizations and managers, noting that “perhaps for BGG, all publicity was good publicity”.

Over time, the BCG Matrix has been widely criticized in the fields of marketing and strategy, and the review of criticism leveled at the BCG Matrix reveals a certain level of scholarly disdain. Untiedt et al. (2012) note that portfolio matrices in spite of being relevant and widely used by practitioners have disappeared from the research agendas of academics.

**3.4. Business media.** Business media organizations influence the diffusion and institutionalization of new management techniques (Abrahamson, 1996; Scarbrough, Robertson & Swan, 2005). Different types of business media (e.g., books, journals, magazines, newspapers) transmit information about

new management concepts and ideas (Alvarez, 1998; Alvarez, Mazza & Pedersen, 2005; Mazza & Alvarez, 2000; Sahlin-Andersson & Engwall, 2002).

Over the course of the last decades, the BCG Matrix has received much attention in the business media. Morrison and Wensley (1991, p. 115) noted the attention given to the BCG Matrix in business media as an important factor in explaining its rise: “the publicity generated by BCG, and by the lively debate in the business and academic press, no doubt had a further significant effect on adoption”.

Hence, it can be argued that the business media acted as an important cheerleader in the early phase. However, business media also played an influential role in the fall of the BCG Matrix. During the 1980s conglomerates, and by implication, portfolio matrices, were heavily criticized in the business press. As pointed out by Davis et al. (1994, p. 564), “the business press denounced the conglomerate merger movement as a bout of collective madness on the part of American businesses and announced the coming of a firm-as-network model to replace the now-discredited firm-as-portfolio model.”

**3.5. Prestigious user organizations.** Prestigious user organizations sometimes play important roles in the diffusion and popularization of new management techniques by putting themselves on public display as general models (Meyer, 1996). In part, organizations put themselves on display as models to enhance their own legitimacy and status. Prestigious users and experienced early adopters may participate in the fashion arena by writing articles in the business media or giving interviews. In addition, adopters and users of the concepts participate in conferences and seminars by giving speeches and presentations. Hence, experienced adopters may assume the role of experts on a particular technique.

In the case of the BCG Matrix, Morrison and Wensley (1991) point out the role of companies such as Mead Paper and American Standard. With respect to Mead Paper, Morrison and Wensley (1991, p. 114) noted that the director of that company also served as chairman of BCG’s parent company.

In addition, the famous American conglomerate General Electric was involved in the development of the GE/McKinsey Matrix. In that case, the GE brand name became closely associated with the name of the matrix.

**3.6. Conference/seminar organizers.** The role of the conference/seminar scene is highlighted in management fashion research (Ax & Bjørnenak, 2005; Jung & Kieser, 2012; Kieser, 1997). Conference/seminar organizers have played a limited role in the case of the BCG Matrix. Although there may have been a market in the early phase in during the 1970s, in general, it can be difficult to make a living selling conference/seminar seats for well-known

and relatively simple management techniques such as the BCG Matrix or SWOT Analysis.

**3.7. Management gurus.** Management gurus are important in the creation and diffusion of management fashions (Huczynski, 1993; Jackson, 2001). In the case of the BCG Matrix, management gurus have not played a key role.

Bruce Henderson could arguably be called a “BCG Matrix guru”, since he played the key role in the early development and writings about the BCG Matrix (Henderson, 1970, 1973, 1979). However, Henderson did not operate on his own, as is often seen in the case of gurus in relation to new management fashions; instead, he was associated with BCG throughout his career.

**3.8. Summary.** This section has examined the field of actors involved in the market built around the BCG Matrix. Viewed as a whole, consulting firms have clearly played the most important role in the diffusion and popularization of the BCG Matrix. However, business schools have assumed an active role, and bestowed a stamp of legitimacy on the BCG Matrix in the early phase by incorporating the technique in textbooks and educational programs. Business media also created a lot of attention in the early phase. Other actor groups such as conference/seminar organizers and management gurus have played a relatively limited role in the case of the BCG Matrix.

Over time, the roles of the various actors have shifted. As the BCG Matrix fell out of favor, academic researchers and business media became the leading critics and de-legitimizers. As the Zeitgeist shifted, business media organizations published negative pieces on the conglomerate model. Scholars also stepped up their criticism of the BCG Matrix. Consultants have also become less active over time, and have shifted their focus and efforts to newer and more timely management concepts and ideas.

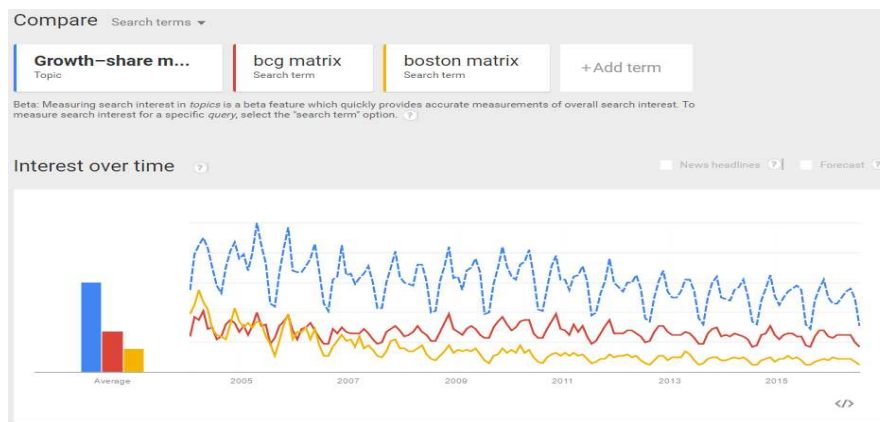
#### 4. The demand side of the BCG Matrix

This section examines the demand side of the BCG Matrix. The demand side consists of organizations and managers that are potential consumers of portfolio matrices such as the BCG Matrix. The first part of the section examines trends in the interest in and awareness of the BCG Matrix, followed by trends in the adoption and diffusion of the BCG Matrix in different sectors and countries. The final part examines how the BCG Matrix has been implemented and translated in practice.

**4.1. Interest and awareness.** Google Trends (Choi & Varian, 2012) is an analytic tool that contains Google search data dating back to 2004. Google Trends can be used to take the temperature on the interest in the BCG Matrix among potential consumers on the demand side (Madsen, 2016b).

The limited data availability is a weakness in the case of the BCG Matrix since this management technique dates back nearly half a century. However, the data from 2004 and onwards give a partial picture of the interest in BCG Matrix. Figure 1 indicates that even

though the search interest appears to be on a downward trajectory, it has not collapsed completely. Furthermore, the Google data indicate that “growth-share matrix” is a more commonly searched for term than “BCG Matrix”.



Data source: <https://www.google.com/trends/>, accessed 15 July 2016.

**Fig. 1. Search interest for terms related to the BCG Matrix**

**4.2. Adoption and diffusion.** This section examines trends in the adoption and use of the BCG Matrix over time. The historical review in section 1 showed that the BCG Matrix was introduced in 1970, but it did not take long before it became widely adopted by organizations and managers. As discussed in section 3, General Electric was an early proponent of portfolio matrices (McKenna, 2012). As early as in 1972, more than 100 major companies in the US used the BCG Matrix (Day, 1977).

Portfolio analysis gained in popularity among companies after the oil crisis in 1973 (Ghemawat, 2002). In the mid to late 1970s, Day (1977) noted that portfolio planning models such as the BCG matrix had “gained wide acceptance among managers of diversified companies”. In a similar vein, Lorange (1975) pointed out that analysis similar to the BCG Matrix was widely used and universally practiced in corporate planning.

By the end of the 1970s, the BCG Matrix had spread widely in the US. Around that time it was used in many different sectors (Haspeslagh, 1982). Ghemawat (2002) cites a study that shows that by 1979, portfolio planning techniques were used, at least to a certain extent, by 45% of Fortune 500 companies. Phelan (2005) cites studies (Bettis & Hall, 1981; Haspeslagh, 1982) that demonstrate that the BCG Matrix was used by almost half of Fortune 500 firms during the period from 1972 to 1982.

During the 1980s, the BCG Matrix was the most popular portfolio matrix (Morrison & Wensley, 1991) and widely used in strategic planning (Hax & Majluf, 1983). However, there were industry differences in how the BCG was applied and used (Morrison & Wensley, 1991).

Over the course of the 1990s, the BCG continued to decline in popularity. In a contribution from the late 1990s, Glaister and Falshaw (1999, p. 112) pointed out that “little use is made of portfolio matrices”. However, the evidence about usage is mixed, as other researchers note that although traditional planning models have gone out of fashion, American companies were reluctant to discard these classic planning tools (McCabe & Narayanan, 1991).

Research papers published after the year 2000 show that BCG Matrix is still relatively widely used and that the awareness is high. Jarzabkowski and Giulletti (2007) find that portfolio matrices are currently used by 29% of organizations, while 20% have used them previously but not anymore. They also find that the awareness is high. 40% have heard of portfolio matrices but are not using them, while only 13% have not heard of such matrices at all.

In a study conducted in Jordan, Aldehayyat and Anchor (2008) find that portfolio analysis techniques (e.g., BCG Matrix) rank 10 and 3 in terms of use and awareness, respectively. Tassabehji and Isherwood (2014) document a usage rate of 26.4 percent in a sample biased towards UK/USA firms.

In a recent study, Jarzabkowski and Kaplan (2015, p. 546) find that the use of the BCG Matrix persists at a moderate level. Pidun et al. (2011) argues that corporate portfolio planning techniques such as the BCG Matrix are still popular among practitioners.

Table 6 sums up the overall trends in the adoption and use of the BCG Matrix over time. The studies reviewed in this section generally show that the BCG has been on a downward trajectory in terms of usage since the heydays in the 1970s. However, at the same time, practitioners seem hesitant to discard these techniques.

Table 6. Trends in the adoption and use of the BCG Matrix over time

Period	Adoption and use
1970s	Portfolio matrices are widely used and universally practiced
1980s	Several competing matrices, but BCG Matrix is still most popular portfolio matrix
1990s	Portfolio matrices no longer seen as fashionable, but organizations are for the most part hesitant to discard them
2000s and onwards	Moderate level of use of portfolio matrices

**4.3. Implementation and translation.** In the analysis of the BCG Matrix's characteristics, it was noted that the BCG Matrix allows for different interpretations. The BCG Matrix is also universal in nature, meaning that it can be adapted to different contexts (Haspeslagh, 1982).

Researchers have noted that BCG Matrix can be applied and translated in different ways in practice. Spee and Jarzabkowski (2009) notes that "the same strategy tool (e.g. BCG matrix) can have different meanings when applied for different purposes, by different individuals or in different contexts". The use of the BCG Matrix also shapes how managers perceive different strategic activities (Armstrong & Brodie, 1994).

The interpretive space also means that the BCG Matrix is often combined with other management concepts in practice. For example, researchers have found that it is combined with other strategy tools such as SWOT (Tao & Shi, 2016). In recent years, the portfolio thinking has also been translated to customer portfolio management (Thakur & Workman, 2016), where the BCG Matrix is applied to customers instead of businesses.

## 5. Discussion

In this section, the findings are discussed in the context of the management fashion perspective. The discussion focuses on three themes relevant to the rise, fall and persistence of the BCG Matrix: (1) historical emergence, (2) evolution and life cycle, and (3) institutionalization and deinstitutionalization.

**5.1. Historical emergence.** The historical analysis in this paper has shown that the BCG Matrix emerged in the late 1960s, mostly as a result of practice-based development. Researchers have found that the BCG Matrix was developed based on experiences from consulting work (Morrison & Wensley, 1991) and in close interaction with actors in business practice (Cummings & Daellenbach, 2009).

Hence, the emergence of the BCG Matrix was not driven primarily by academia and theory. However, this does not mean that academics and business schools did not play a role in the rise of the BCG Matrix. Business schools, in particular the network around Harvard Business School, contributed to the early legitimization and popularization of the BCG Matrix (Morrison & Wensley, 1991). This observation is in-

teresting given that the Harvard Business School network has later been shown to have been important in creating and mobilizing support for other well-known management fashions such as the Balanced Scorecard and Activity Based Costing (Cooper, Ezzamel, & Qu, 2016; Jones & Dugdale, 2002).

**5.2. Evolution and life cycle.** Next, the evolution and life cycle of the BCG Matrix is discussed in light of management fashion theory. The traditional and general view among management fashion theorists is that fashions have a relatively short life-span and do not stick around for very long (Abrahamson, 1996; Carson et al., 2000; Gill & Whittle, 1993).

In the case of the BCG Matrix, the analysis has shown the life cycle so far has spanned nearly half a century. Although research has shown that the "the firm-as-portfolio model" was deinstitutionalized during the 1980s (Davis et al., 1994), the BCG Matrix has managed to persist as a management technique, even in the face of headwinds and unfavorable shifts in Zeitgeist.

That said, it can reasonably be argued that the BCG Matrix is currently relatively late in the life cycle as a management concept. As pointed out by Phelan (2005, p. 2), "in the first decade of the 21<sup>st</sup> century, the BCG matrix is certainly in the decline phase of its product life cycle; perhaps qualifying for 'dog' status in its own terminology".

However, predicting the future evolution and trajectory of the BCG Matrix is difficult. Will it fall into oblivion, or will it stabilize at this lower level of popularity (steady state)? McCabe and Narayanan (1991) lend some support to the view that the BCG Matrix will continue to stick around, as they find that companies are reluctant to get rid of the old planning tools such as the BCG matrix. This seems still to be the case, as recent research shows that the BCG Matrix is still used and popular among practitioners (Jarzabkowski & Kaplan, 2015; Pidun et al., 2011) despite being viewed as being mostly of historical interest by scholars and textbooks writers in the fields of marketing and strategy.

**5.3. Institutionalization and deinstitutionalization.** Finally, the rise and fall of the BCG Matrix will be discussed in light of institutionalization and deinstitutionalization, two key concepts in institutional theory (Scott, 2001), and more recently also in discussions of management fashions (Madsen & Slåtten, 2015a; Perkmann & Spicer, 2008; Røvik, 2011).

Among management fashion theorists, the traditional view has been that management fashions are transitory and fleeting phenomena, whose lifecycles resemble a bell-shaped curve (Abrahamson, 1996; Abrahamson & Fairchild, 1999; Gill & Whittle, 1993). After a rapid rise in interest and popularity, new fashions become "old" and ultimately fall out of favor and decline into obscurity.

However, it is increasingly recognized that management fashions can be institutionalized via the institutional work of supply side actors who anchor these fashionable techniques as more permanent and resilient frameworks and practices (Perkmann & Spicer, 2008). The enduring nature of some management fashions has, for instance, been shown in the case of Knowledge Management (Grant, 2011; Hislop, 2010; Jemielniak & Kociatkiewicz, 2009).

The case of the BCG Matrix is interesting to discuss in relation to institutionalization and deinstitutionalization processes. On the one hand, it is clear that the BCG Matrix was on the rise in terms of popularity, and for a while enjoyed a very high standing in the business community (signs of institutionalization). On the other hand, the BCG Matrix's fall from grace was triggered by different factors, including a shift in zeitgeist and the "deinstitutional work" of key actors in the business community. In particular, business media and scholars criticized and discredited the conglomerate form and the "firm-as-portfolio model" (Davis et al., 1994) represented by the BCG Matrix.

Despite having risen and fallen in popularity, the BCG Matrix has not completely gone away. The research cited in this paper shows that it still enjoys at least some level of popularity among practitioners, even though it is widely discredited in academic circles. However, it can be argued that the BCG Matrix has left an imprint on management education and practice.

Although consultants these days find it more difficult to make a living selling 2x2 matrices, the BCG Matrix is still closely associated with its creator BCG. Today, BCG enjoys a position as one of the elite strategy consulting firms (Kiechel, 2010). This in and of itself could explain some of the BCG Matrix enduring nature, as management techniques that are associated with the elite consultancies may be perceived more positively by business managers.

Although BCG consultants are not promoting the matrix to the extent that they did in the early 1970s, it may be in the self-interest of BCG to protect its intellectual legacy and brand name. Therefore, it is not surprising that the BCG Matrix is still featured in the book "The Boston Consulting Group on Strategy" (Stern & Deimler, 2012). In 2014, leading BCG consultants still refer to their matrix as a "BCG Classic" (Reeves et al., 2014), and they argue that "BCG Matrix 2.0" still continues to be relevant even in today's turbulent and dynamic business environment.

## Conclusion

**Contributions.** The present paper has examined the rise, fall and persistence of the BCG Matrix using management fashion theory as a theoretical backdrop. Although previous contributions alluded to fashion as being a possible factor involved in the rise of the BCG Matrix (Morrison & Wensley, 1991), this theoretical

perspective has not been fully considered and utilized. As shown in this paper, the management fashion perspective casts a new light on the role of the actors and institutions involved in shaping the evolution pattern of the BCG Matrix.

Although the main focus of the paper has been to provide a new theoretical perspective on the historical evolution of the BCG Matrix, the paper also has some practical implications. Despite its fall from grace, the BCG Matrix has left an imprint on business school education, consulting, as well as managerial practice. Portfolio matrices such as the BCG Matrix are, despite their shortcomings, are viewed as practically relevant and still used in practice (Untiedt et al., 2012). The historical examination in this paper could potentially be useful for practitioners seeking to understand the origins and evolution of the BCG Matrix, and how it relates to other approaches in the field of management.

**Limitations and future research directions.** Like all research studies, this study is certainly not immune to limitations and weaknesses. Therefore, future research papers could elaborate on the present study in a several different ways.

For example, the current study has only presented an overall macro picture of the rise, fall and persistence of the BCG Matrix. The approach bears similarities with Morrison and Wensley (1991) who assembled a "mosaic" of the factors explaining the rise in the popularity of the BCG Matrix. Since the present study has covered a period stretching nearly 50 years, it has not been possible to focus in depth on a particular sub-period. Future studies can focus specifically on the evolution of the BCG Matrix within specific time periods, and in greater detail trace the activities of the various actors supporting or opposing the BCG Matrix.

Another limitation is related to the choice of management fashion as a theoretical lens. The author recognizes that this could have led to bias, as it may lead to an "over-socialized" view of the rise and fall of the BCG Matrix. There are certainly many other factors that could explain the evolution pattern of the BCG Matrix. Future studies on the BCG Matrix could draw on a wider spectrum of theoretical perspectives about the adoption, diffusion and evolution of management practices (see, e.g., Sturdy, 2004).

Generally, there is a need for more research on tools and techniques for corporate portfolio analysis. Practitioners would also benefit from a better understanding the origins and evolution of management techniques. A better understanding of shortcomings could enable practitioners to better adapt and "translate" classic techniques such as the BCG Matrix to the modern business environment (cf. Reeves et al., 2014).

Finally, there is a need for more research on the management techniques launched and propagated by elite consulting firms such as BCG and McKinsey. These

elite consulting firms are powerful actors who greatly influence the diffusion and popularization of management knowledge (O'Mahoney & Sturdy, 2016). As the

case study presented in this paper shows, these firms play a key role in the rise and fall in popularity of particular management techniques.

## References

1. Abrahamson, E. (1991). Managerial fads and fashions: The diffusion and rejection of innovations, *Academy of Management Review*, 16, pp. 586-612.
2. Abrahamson, E. (1996). Management Fashions, *Academy of Management Review*, 21, pp. 254-285.
3. Abrahamson, E. & Fairchild, G. (1999). Management fashion: lifecycles, triggers, and collective learning processes, *Administrative Science Quarterly*, 44, pp. 708-740.
4. Aldehayyat, J.S. & Anchor, J.R. (2008). Strategic planning tools and techniques in Jordan: awareness and use, *Strategic Change*, 17 (7-8), pp. 281-293.
5. Allio, R.J. (2006). Strategic thinking: the ten big ideas, *Strategy & Leadership*, 34 (4), pp. 4-13.
6. Alvarez, J.L. (1998). *The diffusion and consumption of business knowledge*: St. Martin's Press.
7. Alvarez, J.L., Mazza, C. & Pedersen, J.S. (2005). The Role of the Mass Media in the Consumption of Management Knowledge, *Scandinavian Journal of Management*, 21 (2), pp. 133-233.
8. Ardley, B. (2008). Articles of faith and mystic matrices: Marketing textbooks and the misrepresentation of reality, *Qualitative Market Research: An International Journal*, 11 (4), pp. 372-385.
9. Armstrong, J.S. (1996). The ombudsman: management folklore and management science – on portfolio planning, escalation bias, and such, *Interfaces*, 26 (4), pp. 25-55.
10. Armstrong, J.S. & Brodie, R.J. (1994). Effects of portfolio planning methods on decision making: Experimental results, *International Journal of Research in Marketing*, 11 (1), pp. 73-84.
11. Ax, C. & Bjørnenak, T. (2005). Bundling and diffusion of management accounting innovations – the case of the balanced scorecard in Sweden, *Management Accounting Research*, 16, pp. 1-20.
12. Benders, J. (1999). Tricks and Trucks? A Case Study of Organization Concepts at Work, *International Journal of Human Resource Management*, 10 (4), pp. 624-637.
13. Benders, J. & Van Veen, K. (2001). What's in a fashion? Interpretive viability and management fashions, *Organization*, 8 (1), pp. 33-53.
14. Bensoussan, B.E. & Fleisher, C.S. (2012). *Analysis without paralysis: 12 tools to make better strategic decisions*: FT Press.
15. Bettis, R.A. & Hall, W.K. (1981). Strategic portfolio management in the multibusiness firm, *California Management Review*, 24 (1), pp. 23-38.
16. Birkinshaw, J. & Mark, K. (2015). *Key MBA models: The 60+ models every manager and business student needs to know*. Pearson Higher Ed.
17. Brindle, M. & Stearns, P.N. (2001). *Facing up to management faddism: A new look at an old force*. Greenwood Publishing Group.
18. Carson, P., Lanier, P., Carson, K. & Guidry, B. (2000). Clearing a path through the management fashion jungle, *Academy of Management Journal*, 43 (6), pp. 1143-1158.
19. Choi, H. & Varian, H. (2012). Predicting the present with google trends, *Economic Record*, 88 (s1), pp. 2-9.
20. Clark, T. (2004a). The fashion of management fashion: A surge too far? *Organization*, 11 (2), pp. 297-306.
21. Clark, T. (2004b). Strategy viewed from a management fashion perspective, *European Management Review*, 1 (1), pp. 105-111.
22. Coate, M.B. (1983). Pitfalls in portfolio planning, *Long Range Planning*, 16 (3), pp. 47-56.
23. Cooper, D.J., Ezzamel, M. & Qu, S. (2016). Popularizing a management accounting idea: The case of the balanced scorecard. Available at SSRN.
24. Cummings, S. & Daellenbach, U. (2009). A guide to the future of strategy?: The history of long range planning, *Long Range Planning*, 42 (2), pp. 234-263.
25. Davis, G.F., Diekmann, K.A. & Tinsley, C.H. (1994). The decline and fall of the conglomerate firm in the 1980s: The deinstitutionalization of an organizational form, *American Sociological Review*, pp. 547-570.
26. Day, G.S. (1977). Diagnosing the product portfolio, *The Journal of Marketing*, pp. 29-38.
27. Ernst, B. & Kieser, A. (2000). *How consultants outcompete management scientists on the market of management knowledge*. Paper presented at the Workshop of the Kommission für Organisation, Zurich.
28. Fincham, R. & Evans, M. (1999). The consultants' offensive: reengineering – from fad to technique, *New Technology, Work and Employment*, 14 (1), pp. 32-44.
29. Ghemawat, P. (2002). Competition and business strategy in historical perspective, *Business History Review*, 76 (01), pp. 37-74.
30. Gill, J. & Whittle, S. (1993). Management by panacea: Accounting for transience, *Journal of Management Studies*, 30 (2), pp. 281-296.
31. Giroux, H. (2006). 'It was such a handy term': Management fashions and pragmatic ambiguity, *Journal of Management Studies*, 43 (6), pp. 1227-1260.
32. Glaister, K.W. & Falshaw, J.R. (1999). Strategic planning: still going strong? *Long Range Planning*, 32 (1), pp. 107-116.
33. Gluck, F.W. (1985). A fresh look at strategic management, *Journal of Business Strategy*, 6 (2), pp. 4-19.
34. Godfrey, R.D. (2015). *Strategic Management: A Critical Introduction*. Routledge.
35. Grant, K. (2011). Knowledge Management, An Enduring but Confusing Fashion, *The Electronic Journal of Knowledge Management*, 9 (2), pp. 1117-1131.

36. Griffin, R.W. (2016). *Fundamentals of management*. 8th ed. Cengage Learning.
37. Grint, K. (1997). TQM, BPR, JIT, BSCs and TLAs: Managerial waves or drownings? *Management Decision*, 35, pp. 731-738.
38. Grønhaug, K. (2002). Is marketing knowledge useful? *European Journal of Marketing*, 36 (3), pp. 364-372.
39. Hambrick, D.C. & MacMillan, I.C. (1982). The product portfolio and man's best friend, *California Management Review*, 25 (000001), p. 84.
40. Hamel, G. & Prahalad, C.K. (1994). *Competing for the future*. Boston, Mass.: Harvard Business School Press.
41. Haspeslagh, P. (1982). Portfolio planning-uses and limits, *Harvard Business Review*, 60 (1), pp. 58-73.
42. Hax, A.C. & Majluf, N.S. (1983). The use of the growth-share matrix in strategic planning, *Interfaces*, 13 (1), pp. 46-60.
43. Hayes, R.H. & Abernathy, W.J. (1980). Managing our way to economic decline, *Harvard Business Review*, 58 (4), pp. 138-149.
44. Hedmo, T., Sahlin-Andersson, K. & Wedlin, L. (2005). Fields of imitation: The global expansion of management education. In B. Czarniawska, & G. Sevón (Eds.), *Global Ideas: How ideas, objects and practices travel in the global economy*, pp. 190-212. Lund: Liber & CBS Press.
45. Henderson, B. (1970). The product portfolio, *BCG Perspectives*.
46. Henderson, B. (1973). The experience curve reviewed: IV the growth share matrix or product portfolio, *BCG Perspectives*, p. 135.
47. Henderson, B. (1979). The product portfolio: growth share matrix of the Boston Consulting Group. In H. Mintzberg, & J.B. Quinn (Eds.), *The Strategy Process: Concepts, contexts, cases*, 2nd ed., pp. 678-680.
48. Henderson, B. (1984). *The Logic of Business Strategy*. Ballinger Pub Co.
49. Heusinkveld, S. (2013). *The Management Idea Factory: Innovation and Commodification in Management Consulting*. New York, NY: Routledge.
50. Heusinkveld, S. & Benders, J. (2012). Consultants and organization concepts. In M. Kipping, & T. Clark (Eds.), *The Oxford Handbook of Management Consulting*, pp. 267-284. New York, USA: Oxford University Press.
51. Hindle, T. (2008). *Guide to management ideas and gurus*. London, UK: The Economist in association with Profile Books Ltd.
52. Hislop, D. (2010). Knowledge management as an ephemeral management fashion? *Journal of Knowledge Management*, 14 (6), pp. 779-790.
53. Huczynski, A. (1993). *Management gurus: What makes them and how to become one*. London: Routledge.
54. Jackson, B. (2001). *Management Gurus and Management Fashions*. London: Routledge.
55. Jarzabkowski, P. & Giulietti, M. (2007). Strategic management as an applied science, but not as we (academics) know it, *Paper presented at The Third Organization Studies Summer Workshop*. Crete.
56. Jarzabkowski, P. & Kaplan, S. (2015). Strategy tools in use: A framework for understanding "technologies of rationality" in practice, *Strategic Management Journal*, 36 (4), pp. 537-558.
57. Jemielniak, D. & Kociatkiewicz, J. (2009). Knowledge Management: Fad or Enduring Organizational Concept?, *Handbook of Research on Knowledge-Intensive Organizations*, pp. 552-561: IGI Global.
58. Johnson, G., Scholes, K. & Whittington, R. (2008). *Exploring corporate strategy: Text and cases*. Pearson Education.
59. Jones, T.C. & Dugdale, D. (2002). The ABC bandwagon and the juggernaut of modernity, *Accounting, Organizations and Society*, 27, pp. 121-163.
60. Jung, N. & Kieser, A. (2012). Consultants in the Management Fashion Arena. In M. Kipping, & T. Clark (Eds.), *The Oxford Handbook of Management Consulting*, pp. 327-346. New York, USA: Oxford University Press.
61. Kaarbøe, K., Gooderham, P.N. & Nørreklit, H. (2013). *Managing in Dynamic Business Environments: Between Control and Autonomy*, Edward Elgar Publishing.
62. Karlof, B. (1989). *Business strategy: a guide to concepts and models*, Springer.
63. Karlöf, B. & Helin Lövingsson, F. (2005). A to Z of Management Concepts and Models. *London, GBR: Thorogood Publishing*.
64. Kiechel, W. (2010). *The lords of strategy: The secret intellectual history of the new corporate world*. Harvard Business Press.
65. Kieser, A. (1997). Rhetoric and myth in management fashion, *Organization*, 4 (1), pp. 49-74.
66. Klineciewicz, K. (2006). *Management fashions: Turning best-selling ideas into objects and institutions*. Piscataway, New Jersey, USA: Transaction Publishers.
67. Knott, P. (2006). A typology of strategy tool applications, *Management Decision*, 44 (8), pp. 1090-1105.
68. Lorange, P. (1975). Divisional planning: setting effective direction, *Sloan Management Review*, 17 (1), pp. 77-91.
69. Lowy, A. & Hood, P. (2011). *The power of the 2 x 2 matrix: Using 2 x 2 thinking to solve business problems and make better decisions*. John Wiley & Sons.
70. Madsen, D.Ø. (2016a). SWOT Analysis: A Management Fashion Perspective, *International Journal of Business Research*, 16 (1), pp. 39-56.
71. Madsen, D.Ø. (2016b). Using Google Trends in management fashion research: A short note, *European Journal of Management*, 16 (1), pp. 111-122.
72. Madsen, D.Ø. & Johanson, D. (2016). Examining customer relationship management from a management fashion perspective, *Cogent Business & Management*, 3 (1), pp. 1161285.
73. Madsen, D.Ø. & Slåtten, K. (2015a). The Balanced Scorecard: Fashion or Virus? *Administrative Sciences*, 5 (2), pp. 90-124.
74. Madsen, D.Ø. & Slåtten, K. (2015b). Social media and management fashions, *Cogent Business & Management*, 2 (1), p. 1122256.

75. Madsen, D.Ø., & Stenheim, T. (2013). Doing research on 'management fashions': methodological challenges and opportunities, *Problems and Perspectives in Management*, 11 (4), pp. 68-76.
76. Madsen, D.Ø. & Stenheim, T. (2016). Big Data viewed through the lens of management fashion theory, *Cogent Business & Management*, 3 (1), p. 1165072.
77. Mazza, C. & Alvarez, J.L. (2000). Haute couture and prêt-à-porter: The popular press and the diffusion of management practices, *Organization Studies*, 21, pp. 567-588.
78. McCabe, D.L. & Narayanan, V. (1991). The life cycle of the PIMS and BCG models, *Industrial Marketing Management*, 20 (4), pp. 347-352.
79. McKenna, C. (2012). Strategy Followed Structure: Management Consulting and the Creation of a Market for "Strategy," 1950-2000. In B. Silverman (Ed.), *History and Strategy (Advances in Strategic Management, Volume 29)*, pp. 153-186: Emerald Group Publishing Limited.
80. Meyer, J.W. (1996). Otherhood. The promulgation and transmission of ideas in the modern organizational environment. In B. Czarniawska, & G. Sevón (Eds.), *Translating Organizational Change*, pp. 241-252. Berlin: Walter de Gruyter.
81. Mintzberg, H. (1994a). The fall and rise of strategic planning, *Harvard Business Review*, 72 (1), pp. 107-114.
82. Mintzberg, H. (1994b). *The rise and fall of strategic planning*. New York: Free Press.
83. Mintzberg, H. (2004). *Managers, not MBAs: A hard look at the soft practice of managing and management development*. Berrett-Koehler Publishers.
84. Mintzberg, H., Ahlstrand, B. & Lampel, J. (2005). *Strategy Safari: A Guided Tour Through The Wilds of Strategic Management*. Simon and Schuster.
85. Morrison, A. & Wensley, R. (1991). Boxing up or boxed in?: A short history of the Boston Consulting Group share/growth matrix, *Journal of Marketing Management*, 7 (2), pp. 105-129.
86. Newell, S., Robertson, M. & Swan, J. (2001). Management fads and fashions, *Organization*, 8, pp. 5-15.
87. Nicholls, J. (1995). The MCC decision matrix: a tool for applying strategic logic to everyday activity, *Management decision*, 33 (6), pp. 4-10.
88. Nijholt, J.J. & Benders, J. (2007). Coevolution in management fashions, *Group & Organization Management*, 32 (6), pp. 628-652.
89. O'Shea, J.E. & Madigan, C. (1997). *Dangerous company: The consulting powerhouses and the businesses they save and ruin*. Times Books.
90. O'Mahoney, J. & Sturdy, A. (2016). Power and the diffusion of management ideas: The case of McKinsey & Co., *Management Learning*, 47 (3), pp. 247-265.
91. Ovans, A. (2011). The Charts That Changed the World, *Harvard Business Review*, (December), pp. 34-35.
92. Patel, P. & Younger, M. (1978). A frame of reference for strategy development, *Long Range Planning*, 11 (2), pp. 6-12.
93. Payne, A.F. (1986). New trends in the strategy consulting industry, *Journal of Business Strategy*, 7 (1), pp. 43-55.
94. Perkmann, M. & Spicer, A. (2008). How are Management Fashions Institutionalized? The Role of Institutional Work, *Human Relations*, 61 (6), pp. 811-844.
95. Phelan, S. (2005). The BCG Matrix Revisited: A Computational Approach, *Academy of Management Meeting*.
96. Pidun, U., Rubner, H., Krühler, M., Untiedt, R., & Nippa, M. (2011). Corporate portfolio management: Theory and practice, *Journal of Applied Corporate Finance*, 23 (1), pp. 63-76.
97. Prahalad, C.K. & Hamel, G. (1994). Strategy as a field of study: Why search for a new paradigm? *Strategic Management Journal*, 15 (S2), pp. 5-16.
98. Proctor, R. & Hassard, J. (1990). Towards a new model for product portfolio analysis, *Management Decision*, 28 (3).
99. Proctor, R. & Kitchen, P. (1990). Strategic planning: An overview of product portfolio models, *Marketing Intelligence & Planning*, 8 (7), pp. 4-10.
100. Proctor, T. (2014). *Strategic marketing: an introduction*. Routledge.
101. Ramanujam, V. & Varadarajan, P. (1989). Research on corporate diversification: A synthesis, *Strategic Management Journal*, 10 (6), pp. 523-551.
102. Reeves, M., Moose, S. & Venema, T. (2014). BCG Classics Revisited: The Growth Share Matrix, *BCG Perspectives*. Boston Consulting Group.
103. Robinson, S., Hichens, R. & Wade, D. (1978). The directional policy matrix – tool for strategic planning, *Long Range Planning*, 11 (3), pp. 8-15.
104. Russell-Walling, E. (2008). *50 management ideas you really need to know*. Quercus Publishing.
105. Røvik, K.A. (1998). *Moderne organisasjoner*. Oslo: Fagbokforlaget.
106. Røvik, K.A. (2002). The secrets of the winners: Management ideas that flow. In K. Sahlin-Andersson & L. Engwall (Eds.), *The Expansion of Management Knowledge: Carriers, Ideas and Sources*, pp. 113-144. Stanford: Stanford University Press.
107. Røvik, K.A. (2007). *Trender og translasjoner – ideer som former det 21. århundrets organisasjon*. Oslo, Norway: Universitetsforlaget.
108. Røvik, K.A. (2011). From Fashion to Virus: An Alternative Theory of Organizations' Handling of Management Ideas, *Organization Studies*, 32 (5), pp. 631-653.
109. Sahlin-Andersson, K. & Engwall, L. (2002). *The expansion of management knowledge: Carriers, flows and sources*. Palo Alto, California, USA: Stanford University Press.
110. Scarbrough, H., Robertson, M. & Swan, J. (2005). Professional media and management fashion: The case of knowledge management, *Scandinavian Journal of Management*, 21 (2), pp. 197-208.
111. Scott, R.W. (2001). *Institutions and Organizations*. 2nd ed.. Thousand Oaks: Sage Publications.



112. Seeger, J.A. (1984). Research note and communication. Reversing the images of BCG's growth/share matrix, *Strategic Management Journal*, 5 (1), pp. 93-97.
113. Sood, A. (2010). GE/McKinsey Matrix. *Wiley International Encyclopedia of Marketing*.
114. Spee, A.P. & Jarzabkowski, P.A. (2009). Strategy tools as boundary objects, *Strategic Organization*, 7 (2), pp. 223-232.
115. Stern, C.W. & Deimler, M.S. (2012). *The Boston consulting group on strategy: Classic concepts and new perspectives*. John Wiley & Sons.
116. Stern, C.W. & Stalk, G. (1998). *Perspectives on Strategy from the Boston Consulting Group*. J. Wiley.
117. Strang, D. & Meyer, J.W. (1993). Institutional conditions for diffusion, *Theory and Society*, 22 (4), pp. 487-511.
118. Sturdy, A. (2004). The adoption of management ideas and practices. Theoretical perspectives and possibilities, *Management Learning*, 35, pp. 155-179.
119. Tao, Z. & Shi, A. (2016). Application of Boston matrix combined with SWOT analysis on operational development and evaluations of hospital development, *European review for medical and pharmacological sciences*, 20 (10), pp. 2131-2139.
120. Tassabehji, R. & Isherwood, A. (2014). Management use of strategic tools for innovating during turbulent times, *Strategic Change*, 23(1-2), pp. 63-80.
121. ten Bos, R. (2000). *Fashion and utopia in management thinking*. Amsterdam/Philadelphia, PA: John Benjamins.
122. Thakur, R. & Workman, L. (2016). Customer portfolio management (CPM) for improved customer relationship management (CRM): Are your customers platinum, gold, silver, or bronze? *Journal of Business Research*.
123. Tilles, S. (1966). Strategies for allocating funds, *Harvard Business Review*, 44 (1), pp. 72-80.
124. Untiedt, R., Nippa, M. & Pidun, U. (2012). Corporate Portfolio Analysis Tools Revisited: Assessing Causes that May Explain Their Scholarly Disdain, *International Journal of Management Reviews*, 14 (3), pp. 263-279.
125. Van den Berg, G. & Pietersma, P. (2015). *Key Management Models: The 75+ Models Every Manager Needs to Know*: Pearson Higher Ed.
126. Wensley, R. (1981). Strategic marketing: Betas, boxes, or basics, *The Journal of Marketing*, pp. 173-182.
127. Whitehead, J. (2015). BCG (Growth Share) Matrix, *Wiley Encyclopedia of Management*, John Wiley & Sons, Ltd.
128. Wilson, I. (1994). Strategic planning isn't dead – it changed, *Long Range Planning*, 27 (4), pp. 12-24.
129. Wind, Y. & Mahajan, V. (1981). Designing product and business portfolios, *Harvard Business Review*, 59 (1), pp. 155-165.
130. Wright, R.P., Paroutis, S.E. & Blettner, D.P. (2013). How useful are the strategic tools we teach in Business Schools? *Journal of Management Studies*, 50 (1), pp. 92-125.