

**Hochschule Furtwangen University**

HFU Business School

M.Sc. International Management

Research Project A:

Scenario Planning with INKA 4

**How will the future of business schools in Germany  
look like in 2035?**

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## Abstract

Business schools have been largely successful in attracting students and producing publications in the last few decades. Nevertheless, this success has raised several concerns. With many variables influencing business schools, it is useful to predict how the future of business schools might look like. Hence, this paper aims to detect current trends in order to forecast and examine the future of German business schools by the year 2035. With the help of the scenario software INKA 4, future scenarios were generated. In order to develop these scenarios, various areas of influence, e.g. Environment, Supply, Demand, Pedagogy, and Technology were identified and conceptualized with regard to current research and literature. The final result consists of four distinct scenarios, which reflect the potential pathway of German business schools in the future.

**Keywords:** *Scenario planning, Business schools, Germany, Future, Management education*

## Key findings

- The future of business schools in Germany is influenced by mainly five areas of influence: Environment, Demand, Supply, Pedagogy and Technology.
- With the scenario software INKA 4, four scenarios were generated. The three most likely scenarios were selected and described to provide an outlook on how the future of business schools in Germany will look like in 2035.
- As the future transformation of business schools in Germany is not predetermined, the obtained results allow organizations to assess ongoing trends, applied strategies and tactics to plan and prepare under a range of possible future outcomes.

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## List of Abbreviations

AACSB	Association to Advance Collegiate Schools of Business
CEIBS	China Europe International Business School
EBS	European Business School
ECTS	European Credit Transfer and Accumulation System
EQUIS	European Quality Improvement System
ESMT	European School of Management and Technology
HBS	Harvard Business School
HEC	École des hautes études commerciales
HKUST	Hong Kong University of Science and Technology
HR	Human Resources
IMD	International Institute for Management Development
MBA	Master of Business Administration
MOOC	Massive Open Online Course
M.Sc.	Masters of Sciences
PLE	Personalized Learning Environment
UAS	University of Applied Sciences
UCE	University of Cooperative Education
UCLA	University of California, Los Angeles
US	United States
WHU	Wissenschaftliche Hochschule für Unternehmensführung

## 1. Introduction

Management education has experienced a flourishing development over the last few decades. The amount of research publications and programs offered in the field of management has seen a dramatic increase.<sup>1</sup>

This boom was caused by a great surge in demand for management education.<sup>2</sup> However, despite all this success many concerns have been raised by experts in the field of management education about the current path being taken. Some have pointed out that there is no real evidence that what is being taught at business schools helps students succeed in the business world.

Another concern being raised is the relevance of the research being conducted at business schools to the practice of management. If the goal of business schools is to prepare students for future employment while at the same time providing businesses with new insights to solve current problems, then the business schools could be considered to have failed at achieving their purpose.<sup>3</sup> Business schools will need to address those concerns while at the same time navigating other challenges posed by digitization and globalization. Additional concerns include the over reliance on third party evaluation mechanisms, and the ability of schools to fund themselves in a sustainable manner.<sup>4</sup>

The business schools have to analyze its present scenario. The aggravated awareness of the situation might lead the business school to take feasible action and initiate innovations in the future. At the same time, the present image and the characterization of management education might emerge as threatening for the future of the business school.<sup>5</sup> This introduces the central research question for this paper:

***“How will the future of Business Schools in Germany look like in 2035?”***

The report addresses in depth about the current framework and aims to predict upcoming future scenarios for business schools in Germany and provides a comprehensive vision of

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<sup>1</sup> Cf. Dameron and Durand 2018, p. 1.

<sup>2</sup> Cf. Durand and Dameron 2011, p. 559.

<sup>3</sup> Cf. Miles 2016, pp. 1–6.

<sup>4</sup> Cf. Dameron and Durand 2013, pp. 1–3.

<sup>5</sup> Cf. Thomas et al. 2014b.

the future. With the help of the scenario planning software INKA 4, these scenarios are developed from the current situation.

Moreover, it allows business schools to evaluate ongoing trends, applied strategies and tactics to plan and prepare under a range of possible future outcomes. Scenario planning helps to identify the factors responsible for changes in the business school sector. This makes the institutions to become aware of their current situation and change their behavior regarding their future strategies.

This paper is divided into nine sections. The first section outlines the importance of the research topic and presents the central research question. The second section provides a general introduction to business schools including definition criteria. Further, it gives a brief overview of the historical evolution of management education as an academic discipline in Germany. The origin and scenario planning methodology is outlined in section three. Section four describes the team methodology and process outline. Moreover, it contains a comprehensive literature review about each selected area of influence. The next chapter introduces the final results followed by the discussion of results. Section seven provides a brief summary on the conducted research. Finally, conclusions are drawn in section eight of the report. Lastly, limitations of the study are presented in section nine.

## **2. Introduction to business schools**

This chapter provides the definition of business schools alongside four classification criteria. Further, a general introduction on the historical evolution of business schools and the current context are presented. Lastly, an overview of business school providers in the context of Germany is given.

### **2.1 Definition of business schools**

Business schools are established with the objective of providing education to students in order to deal with complexity and continuously improve the practice of management.<sup>6</sup>

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<sup>6</sup> Cf. Durand and Dameron 2011, p. 559.

According to Kaplan (2018), business schools can be defined and classified along four criteria<sup>7</sup>, as illustrated in the following Table 1.

<b>Criterion</b>	<b>Continuum</b>	
<b>Culture</b>	<b>Europe</b> (e.g., CEIBS, ESCP Europe, HBS)	<b>US</b> (e.g., INSEAD, Kellogg School of Management)
<b>Compass</b>	<b>Global/International</b> (e.g., ESCP Europe, INSEAD)	<b>Regional/Local</b> (e.g., Debrecen Business School)
<b>Capital</b>	<b>Private</b> (e.g., HBS, Kozminski University, WHU)	<b>Public</b> (e.g., HKUST, UCLA)
<b>Content</b>	<b>Research</b> (e.g., IMD, HEC, Stanford, Wharton)	<b>Teaching</b> (e.g., EBS Paris; Plymouth Business School)

Table 1: Classification criteria of business schools (own representation based on Kaplan (2018))

Business schools can be classified according to their culture, compass, capital or content. Firstly, the differentiation on the cultural behavior of the business schools can be identified according to their European model or American model. Regardless of the geography, some business schools follow the European method of teaching. This method puts emphasis on interdisciplinary courses and cross-cultural management. It is influenced by the methodological and systematic thinking of the European culture.<sup>8</sup> On the contrary, business schools can follow the American system, which is driven by a disciplinary course structure and a high preference to shareholders value.<sup>9</sup>

Secondly, business schools are classified according to their compass of extension. On the one hand, schools are focused on an international or global reach with diversified faculty and student body. On the other hand, they are focused on regional and national reach with limited international participants.<sup>10</sup>

<sup>7</sup> Cf. Kaplan 2018, p. 3.

<sup>8</sup> Cf. Kaplan 2014, pp. 529–534.

<sup>9</sup> Cf. Kaplan 2018, p. 3.

<sup>10</sup> Cf. Kaplan 2018, p. 4.

Thirdly, Kaplan (2018) writes about differentiation through capitalization. The business school can either be publicly funded or privately funded. However, most institutions are a blend between both options.<sup>11 12</sup>

Finally, the fourth definition criteria of business schools is the content. This criteria indicates the schools focus on either research activities or academic teaching. Generally, teaching oriented institutions have a high number of students and try to generate revenue through mass education. On the contrary, research oriented institutions are characterized by high costs related to the conduction of research.<sup>13</sup>

In general, business schools present themselves as academic institutions with various disciplines that are established in the market. They are academically expected to showcase their abilities to manage themselves as businesses and conduct research and teaching. This creates a series of tension that has been arising in recent years.<sup>14</sup> The business schools in the past emerged from different management faculties, clustering together to form a reputed and sustained value proposition. In today's fast-changing world, problems such as criticism in research, business model, financial unsustainability and invaluable strategic prepositions have led the business schools to wither. Similarly, technological advancements such as e-learning, distant and bundle learning made it more difficult for traditional business schools to persist.

## 2.2 Historical evolution

The history of business schools in Europe can be divided into two periods. The first period between 1819 and 1944, is called the 'Founding Period'. Differentiated between the southern and northern model, the latter was led by Germany. The first German business schools such as "Handelshochschule Leipzig", also served as role models for European business schools during this period. German business schools had to overcome opponents who were convinced that management could only be learned in practice.<sup>15</sup> Germany is said to have already introduced the science of business administration during this 'Founding Period'. The science of business education brought together theory and application. The scientific research done in business education gave space for grounded

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<sup>11</sup> Cf. Kaplan 2018, p. 4.

<sup>12</sup> Cf. Onzoño 2011.

<sup>13</sup> Cf. Kaplan 2018, pp. 4-5.

<sup>14</sup> Cf. Wilson and Thomas 2012, p. 4.

<sup>15</sup> Cf. Kieser 2004.

and in-depth research. German business schools slowly started collaborating with public universities. A highly academic approach was integrated, and the initial more practically-oriented approach was abandoned.<sup>16</sup>

The second period after 1944 was called the 'Assimilation Period'. Emerging after World War II, it continues to this day. American techniques towards academic learning were adopted by the European system during the post-war recovery. Following the American trend, new approaches to the study of management such as the introduction to scientific research and journals were given higher importance.<sup>17</sup>

### **2.3 Current context**

Business schools in the past years have faced a substantial amount of change. In some cases, the business schools implemented a great amount of positive changes backed up by governmental bodies, regulations, private affiliations or funding. Nevertheless, the public image of business schools has been degrading in recent years. The course structure has been criticized due to its applicability in the practical world. There is a high chance of business schools slowly withering in the market they were once celebrated upon. The current situation needs to be analyzed and investigated for the anticipated potential risks. The entry of online programs and private higher education providers are perhaps the biggest threats to business schools, especially in the areas of finance, accounting, and other business disciplines.<sup>18</sup>

The role of international market and globalization needs to be understood before anticipating the future of business schools. The question remains: "Will business schools be driven by market demand or will they move beyond the market image and sustain on its own to become an competent education provider?". Although there is a certain demand for business schools, this might not last forever. A new organizational framework needs to be reframed that combines liberal arts, advanced technology, practical orientation and theoretical knowledge.<sup>19</sup> Demand involves risk factors such as competing in the global market, student subsidies, international and local competition and online courses such as

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<sup>16</sup> Cf. Üsdiken 2004, pp. 87–89.

<sup>17</sup> Cf. Kaplan 2014, p. 530.

<sup>18</sup> Cf. Parker and Guthrie 2010, p. 6.

<sup>19</sup> Cf. Morrison 2014.

Mass Open Online Courses (MOOC). In order to avoid substandard circumstances, business schools need to change its direction or act to sustain its future.

## **2.4 Business schools in the context of Germany**

### **2.4.1 Overview**

Business education in Germany became institutionalized at the start of the 20<sup>th</sup> century. It came as a response to economic problems that had been discussed for two centuries prior. There was ambiguity about the orientation of German business education in its early days. Moreover, there were certain expectations from the business community that business education would develop solutions to practical problems and provide the industry with qualified graduates. However, business education also found itself in a struggle for legitimacy to establish its reputation in the university and prove itself as a legitimate science. Today, business education in Germany has found its place in the university and has managed to develop its own identity and research topics. It managed to establish itself first at commercial colleges, and then later at universities. Business administration is offered at most universities in the German speaking world as a field for research and teaching. The development of professional journals as well as the establishment of the German Academic Association for Business Research helped further with the institutionalization of business education on Germany.<sup>20</sup>

Ever since it was established, business education has sought to be recognized as a practice-oriented discipline. It sought to formulate tools and methods to solve issues facing firms in the business world. Business administration was concerned with the management of all types of institutions, including non-profit organizations, public companies, and governmental organizations. However, since the Second World War, business education moved to theoretical grounds in order to seek a more scientifically rigorous approach. This new orientation coincided with a greater focus on empirical research at the time.

In recent years business education in Germany has made itself accessible to other disciplines. These days there are many hybrid programs offered, which consist of a mix between business education on one hand, and law, social sciences or engineering on the

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<sup>20</sup> Cf. Dameron and Durand 2017, pp. 76–77.

other. There has been a debate about opening business administration even further towards other disciplines such as psychology, neuroscience, and evolutionary biology.<sup>21</sup>

Since the beginning, business education in Germany had an international orientation. That changed however after the Second World War, with institutions moving towards a more national focus. It was not until the 1980s that business education providers returned to orient themselves more towards other European, Japanese, and US institutions. It remains to be seen whether German institutions will be able to develop their own distinct style or continue to drift further into the influence of the US style currently dominating business education globally.<sup>22</sup>

### **2.4.2 Providers**

There are three different kinds of institutions that offer business education in Germany. The first provider is the university. Teaching structure in German universities offer programs that are more grounded in theory, which consist of lectures given by professors and tutorial classes where students can do some exercises under the supervision of teaching assistants. On the plus side, this saves time and allows professors to convey a great deal of information in a limited amount of time. The downside of this structure is that too much information ends up being communicated with students failing to recognize the important parts. As a result, students tend to focus too much on memorizing slides with the hope of passing exams, while ignoring additional readings.

More practical oriented types of schools have emerged to compete with universities. The biggest competitor in the domain of business education to universities are Universities of Applied Sciences (UAS). These tend to be more practically oriented, and typically have a lower student-teacher ratio and smaller classes. They usually require an internship and semester abroad.

Another type of institution which competes in the domain of business education is the University of Cooperative Education (UCE). While both UAS and UCE curricula require time spent at a company internship, UCE were founded on the idea that theoretical and practical knowledge are inseparable.

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<sup>21</sup> Cf. Dameron and Durand 2017, pp. 78–79.

<sup>22</sup> Cf. Dameron and Durand 2017, pp. 79–80.

All this competition has added pressure on business schools at universities and has led to questions as to whether business education belongs at universities or not. The pressure was compounded by the adoption of the Bologna process that led to narrowing the gap between universities and UAS, as degrees from both types of schools became comparable. This has led to UAS students being considered capable candidates for doctoral degrees, and that has coincided with federal state governments taking the view that UAS should be allowed to freely award doctoral degrees.<sup>23</sup>

### **3. Methodology – Scenario planning**

This chapter presents the origins of scenario planning. Moreover, the use of scenario planning as a strategic planning tool is given. Lastly, the scenario building technique is outlined.

#### **3.1 The origins of scenario planning**

The origins of scenario planning are deeply rooted in the military sector. Military strategists have been using scenario techniques focusing on war game simulations. However, the first documented scenario planning strategies appeared in the 19<sup>th</sup> century, written by von Moltke and Clausewitz (Prussian military strategists).<sup>24</sup>

Modern day scenario planning is attributed by many authors to Herman Kahn and the Rand Corporation. Following World War II, the US Department of Defense was confronted with high uncertainty and had difficulties with deciding on the funding of new weapon systems. The decision making in this uncertain context led to a demand of simulation models to predict and investigate future environments. In 1950, the Rand Corporation began to develop scenario techniques to support decision making in uncertain and complex settings. Moreover, Kahn (ranking authority on Civil Defense and strategic planning at the Rand Corporation) developed scenarios for the Air Defense System Missile Command.<sup>25</sup> Subsequently, scenario planning was used for decision making, social forecasting and public policy.<sup>26</sup>

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<sup>23</sup> Cf. Dameron and Durand 2017, pp. 80–93.

<sup>24</sup> Cf. Bradfield et al. 2005, p. 797.

<sup>25</sup> Cf. Bradfield et al. 2005, pp. 797–799.

<sup>26</sup> Cf. Amer et al. 2013, p. 24.

In the business context, scenario planning was firstly used by General Electric and the Royal Dutch Shell Company (Shell) in the 1960s and 1970s. Shell introduced the 'Year 2000' study in 1967 to predict the business environment in 2000. The study predicted discontinuity in the oil industry and led to the 'Horizon Planning' initiative in 1969.<sup>27</sup> Their ability to forecast the future was one of the key reasons behind their success.<sup>28</sup> According to empirical research conducted by Linneman and Klein (1983), almost fifty percent of US Fortune 1000 companies were using scenario planning techniques in the early 1980s.<sup>29</sup> At business level, scenario planning ultimately helps to perform future planning and enhances the effectiveness of decision making.<sup>30</sup>

### 3.2 Scenario as a planning tool

In our present era, no one has the ability to determine how the future will look like. Uncertainty, change and innovation characterize our world, which results in a rising usage of scenario planning techniques. In general, scenarios are systematically developed from the current situation and deliver a comprehensive and plausible vision of the future, as illustrated in Figure 1.

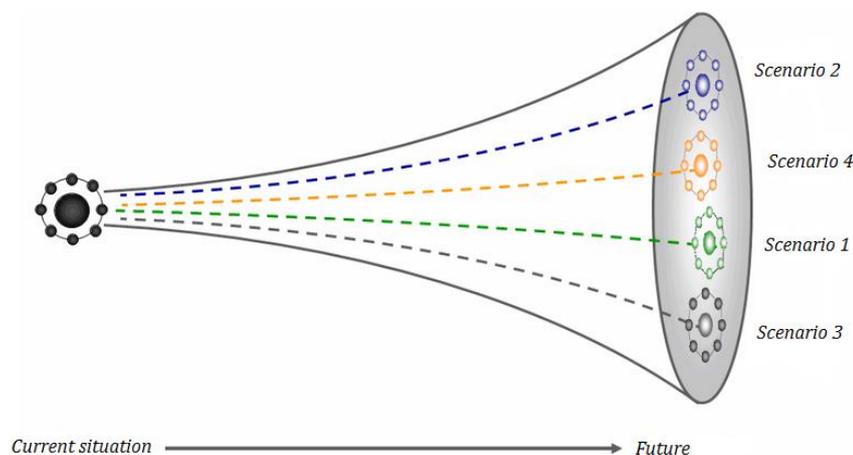


Figure 1: Scenario planning funnel (Geschka and Schwarz-Geschka 2012)

<sup>27</sup> Cf. Bradfield et al. 2005, pp. 799–800.

<sup>28</sup> Cf. Lindgren and Bandhold 2003, p. 37.

<sup>29</sup> Cf. Linneman and Klein 1983.

<sup>30</sup> Cf. Amer et al. 2013, p. 24.

In particular, in times of high uncertainty and complexity, scenario planning is considered a valuable tool for organizations.<sup>31</sup> The report published by Chartered Global Management Accountant (2015) defines scenario planning as follows: “Scenario planning is a management tool that is designed to allow organizations to evaluate the efficacy of strategies, tactics, and plans under a range of possible future environments. In short, it is a perfect tool for today’s increasingly uncertain and volatile world.”<sup>32</sup>

Moreover, scenario planning allows organizations to evaluate alternative assumptions of what may happen in the future to support effective decision making and business strategy.<sup>33</sup> The scenario technique is also very flexible and can be applied to all business contexts with high uncertainty, e.g. competitive strategy, operational planning, budgeting, etc. In conclusion, Verity (2003) argues that developing different scenarios of the future and challenging existing strategies allows managers to develop better long-term strategies.<sup>34</sup>

### **3.3 The scenario building technique**

The scenario building technique, a multi-step approach, allows for effective long-term planning in unpredictable and highly uncertain environments. The scenario software INKA 4, developed by Geschka & Partner Unternehmensberatung GmbH, consists of an integrated algorithm for the development of scenarios. The software supports the development of scenarios for a certain topic by using influencing factors to evaluate scenarios based on alternative assumptions. The starting point is an in-depth analysis of the current situation, which allows for insights of the interdependencies.<sup>35</sup>

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<sup>31</sup> Cf. Amer et al. 2013, p. 23.

<sup>32</sup> Chartered Global Management Accountant 2015, p. 2.

<sup>33</sup> Cf. Chartered Global Management Accountant 2015, p. 3.

<sup>34</sup> Cf. Verity 2003, p. 187.

<sup>35</sup> Cf. Geschka and Schwarz-Geschka 2012.

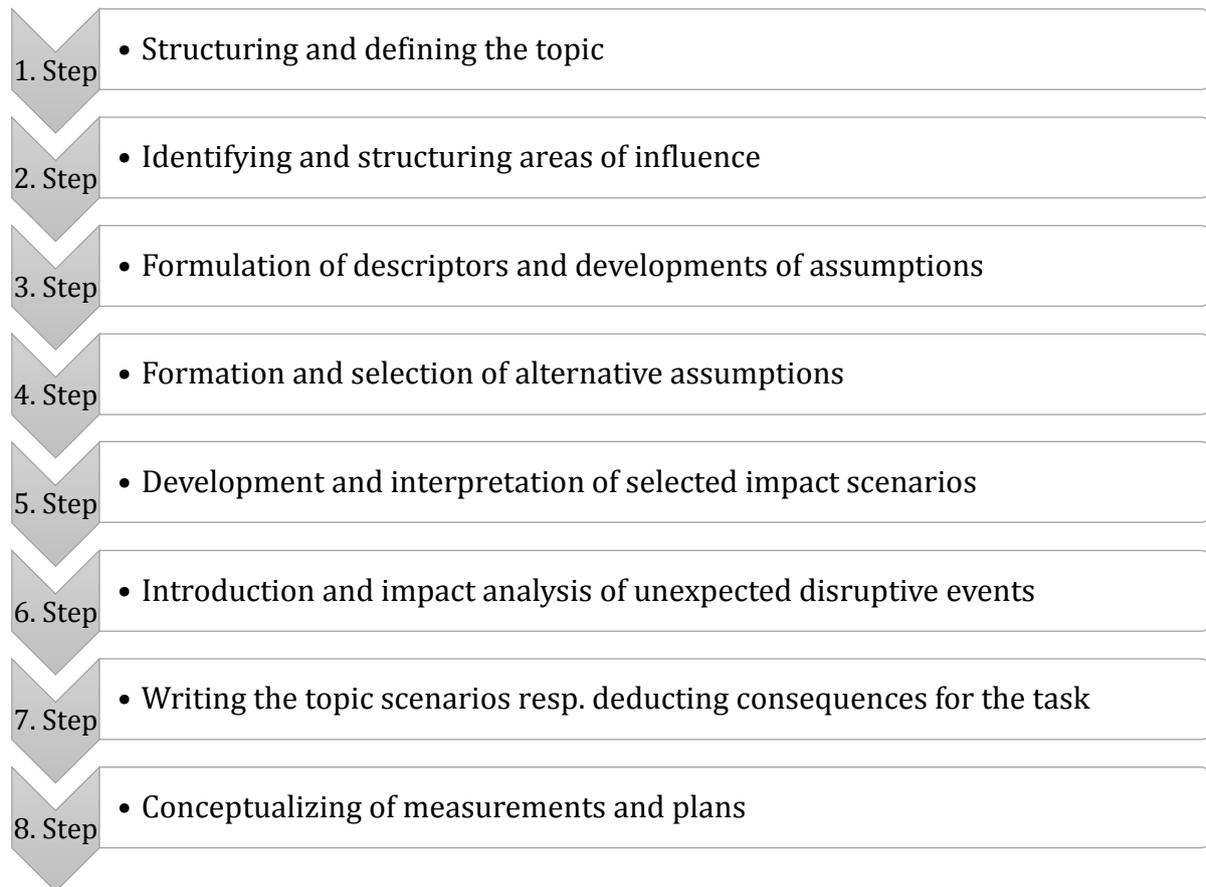


Figure 2: Eight steps of the scenario planning technique (Geschka and Schwarz-Geschka 2012, p. 7)

The scenario planning technique is carried out in eight steps (Figure 2), which are briefly described below.

**1. Structuring and defining the topic:** The first step implies the concise topic definition and scope of analysis. Moreover, the structural characteristics, parameters and current problems must be determined and described.

**2. Identifying and structuring areas of influence:** The second steps comprises the identification, collection and structuring of all influencing factors of the topic. In addition, the influencing factors are then evaluated with regard to their impact and categorized into areas of influence.

**3. Formulation of descriptors and developments of assumptions:** Thirdly, the influencing factors are described as quantitative or descriptive parameters (descriptors). They have to contain all important factors and also allow for quantifiable and qualitative trends to capture future developments. Currently, the number of descriptors is limited to 64. Following, the current situation of all descriptors has to be indicated. On that basis,

assumptions for the scenario target year are made according to forecasts and expert knowledge.

**4. Formation and selection of alternative assumptions:** In this step, alternative assumptions are selected and bundled. After that, the calculation algorithm in INKA 4 compares the characteristics of all alternative descriptors. Then, the degree of cross-linking between all descriptors are estimated. For instance, if they are mutually dependent, unrelated or mutually exclusive.

**5. Development and interpretation of selected impact scenarios:** The fifth step includes the development of intermediate steps, as the leap into the future should not go too far. The comparison between each intermediate step results in an interlinked development cycle from the present to scenario target year.

**6. Introduction and impact analysis of unexpected disruptive events:** In this step, unexpected disruptive events that steer the development in a different direction, e.g. negative events (earthquakes or large-scale explosions) and positive events (technological inventions or political events), are introduced and analyzed.

**7. Writing the topic scenarios resp. deducting consequences for the task:** Seventhly, the future visions for the topic are derived from the scenarios and are graphically presented. Hence, suggestions for future actions can be deducted.

**8. Conceptualizing of measurements and plans:** Finally, consequences are derived from the scenarios and strategic guidelines for future actions are developed.<sup>36 37</sup>

## 4. Team methodology and process outline

The scenario planning project was carried out with the help of the scenario software INKA 4. The project team was working on the cloud version of the software, which allowed for easy usage of all team members.

The scenario planning project aims to examine the future of business schools in Germany. Many external and internal factors will significantly affect German business schools and change the business schools landscape. Considering that the next 16 years will be decisive

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<sup>36</sup> Cf. Geschka and Schwarz-Geschka 2012, pp. 6–8.

<sup>37</sup> Cf. Schwarz-Geschka 2017.

for German business schools, the target year of the scenario planning project has been set for the year 2035.

In order to obtain a general overview of future trends in the German business school landscape, extensive literature research was conducted. This served to collect secondary data and information about the future of German business schools from a significant number of sources. In particular databases such as EBSCO and Google Scholar were used to collect relevant and current data. For a detailed view at the diligent literature review see the list of final descriptors in Appendix 10.1. Finally, on basis of the literature review, the following areas of influence were identified: Environment, Demand, Supply, Pedagogy and Technology. These are explained in greater detail in the following sections.

## 4.1 Environment

There is a widespread consensus that business school environment will drastically change in the future. In particular, in the fields of global and national competition, internationalization, state regulation, and business partnerships.

Several experts believe that the continued success of management education and an increasing number of private for-profit provider will result in a hyper-competitive environment.<sup>38 39</sup> In their article, Pucciarelli and Kaplan (2016) also argue that business schools ultimately have to compete in a global and crowded market.<sup>40</sup> Others have highlighted the pursuit of differentiation strategies due to existing competition, which implies an intensified market segmentation.<sup>41</sup>

Moreover, the globalization implies a disruptive driver of change that cannot be ruled out according to the report published by AACSB International Globalization of Management Education Task Force.<sup>42</sup> They further argue that globalization changed not only the dynamics of competition but also former practices, assumptions, and strategies of business schools.<sup>43</sup> Dameron and Durand (2018) noted in their work that business schools are pushed to globalization in order to secure their development.<sup>44</sup> On the other

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<sup>38</sup> Cf. Dameron and Durand 2017, pp. 82–90.

<sup>39</sup> Cf. Thomas et al. 2014b, pp. 70–72.

<sup>40</sup> Cf. Pucciarelli and Kaplan 2016, p. 315.

<sup>41</sup> Cf. Thomas et al. 2014a, pp. 10–11.

<sup>42</sup> Cf. AACSB International Globalization of Management Education Task Force 2011, p. 3.

<sup>43</sup> Cf. AACSB International Globalization of Management Education Task Force 2011, p. 4.

<sup>44</sup> Cf. Dameron and Durand 2018, pp. 1–21.

hand, some experts argue that despite the trend towards internationalization, business schools are still strongly embedded in their local territory and ultimately seek for territorial recognition.<sup>45</sup>

In addition, state regulation also affects the future of business schools in Germany. Currently, the federal states are mainly responsible concerning funding and regulations for the higher education system.<sup>46</sup> Woźnicki (2013) claims that a greater degree of autonomy is granted to business schools in order to allow them freedom when making academic, financial, and personnel-related decisions.<sup>47</sup> Generally, state funding and regulation plays a crucial role in supporting the competitiveness of German business schools.<sup>48</sup>

Finally, there has been much debate about the link between the business community and business schools and how they fail to addressing the needs of the industry. On the one hand, some experts argue business schools will breach these boundaries and minimize the relevance gap.<sup>49 50</sup> On the other hand, some experts contradict by saying that business schools fail to provide value to those stakeholders and hence the gap between theory and practice will become larger.<sup>51</sup>

## **4.2 Demand**

In the past, the German university system was celebrated around the world. Today, technical faculties like engineering are considered more important in Germany. Nevertheless, there is a high competition in other faculties such as business education. Today, students consider the duration of study, external rankings, accreditation, and the universities overall image when selecting their higher education university. Business education is regarded as the most popular faculty amongst students.<sup>52</sup> Due to the quality of education in terms of its benevolent fee structure, the demand for German business schools are spreading internationally. On the contrary, business schools in Germany are predominantly affiliated to state-owned universities. Although they are public funded,

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<sup>45</sup> Cf. Dameron and Durand 2013.

<sup>46</sup> Cf. The German Rectors' Conference n.d.

<sup>47</sup> Cf. Woźnicki 2013.

<sup>48</sup> Cf. Jongbloed 2010.

<sup>49</sup> Cf. Ungureanu and Bertolotti 2018.

<sup>50</sup> Cf. Paton et al. 2014.

<sup>51</sup> Cf. Thomas et al. 2014b.

<sup>52</sup> Cf. Statista 2018.

they are heavily research oriented and usually do not redefine their business model.<sup>53</sup> On average, the private institutions are immensely smaller in size than public institutions.<sup>54</sup> This makes it difficult for business schools to compete in the global markets such as America, United Kingdom or Australia. Worldwide, business faculty lack a common character that assists the students with practical relevance for the future. Business school themselves teach subjects that can be narrated mostly in monetary terms rather than in their scholarly purpose.<sup>55</sup>

The 'Foundation for the Accreditation of Study Programmes in Germany (1999)' established a system where all study programs had to be accredited under the quality-label of the Accreditation Council. While some institutions (mostly private) participate in it, others have withdrawn from participating. These rankings are primarily based on professor's research published in academic journals, raising the question of lack of other professional skills.<sup>56</sup> On the contrary, authors have argued that accreditation and rankings are important for influencing the patterns of various investors especially in private institutions. The competition for resources in the future will be high. Accreditation of study programs in Germany is similarly of high importance to international students seeking the best German university for further studies.

The duration of studies is a crucial factor influencing the increase or decrease in demand. Students prefer to work while taking part time courses to gain experience. Many companies expect their employees to train themselves and to finance their training if needed. For this reason, dual degree courses combine two areas of studies and possess an interdisciplinary approach towards two or more areas of studies. In order to enhance international competences, some higher education institutions offer dual degree programs in two European countries.<sup>57</sup> In most cases, students fund their basic university degree program themselves and enrich it with practical experience such as an internship or work experience before commencing their studies.<sup>58</sup> Part time studying for the purpose of earning their own tuition fees and a standard of living has been popularizing the demand in the content of Germany. Contrariwise, the full-time requirement in studies is

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<sup>53</sup> Cf. Dameron and Durand 2017, p. 99.

<sup>54</sup> Cf. Stannek and Ziegele 2005, p. 14

<sup>55</sup> Cf. Khurana 2010.

<sup>56</sup> Cf. Dameron and Durand 2017, p. 103

<sup>57</sup> Cf. Stannek and Ziegele 2005, p. 29.

<sup>58</sup> Cf. Dameron and Durand 2017, 101-106.

equally given importance, especially in Universities of Applied Sciences as extensive amount of input is expected from the students.

Idealistically, business schools would be established for the betterment of life and to inspire broad intellectuality and knowledge thinkers. Rather than the technological aspects, the human aspect and the merit of studying business should be given importance.<sup>59</sup> Parker and Juthrie (2010) argue that the utilitarian thinking gives importance to financial growth rather than the problems created by the growth.<sup>60</sup> Wilson et. al. (2012) write that curricula like language, comparative social cultures and the impact of religion on global economic activity needs to be taught in order to grow the demand.<sup>61</sup>

### **4.3 Supply**

This chapter focuses of the supply side of German business schools. In particular importance are the areas of financial sustainability, strategic positioning, program structure, and structure of education system.

The financial sustainability plays an important factor in determining the future of German business schools. Current financial models may be hard to sustain in the future. Momentarily, business schools generate revenue mostly through tuition fees and public funding.<sup>62</sup> However, in the book “The Past, Present, and Future of the Business School”, Miles (2016) argues that public funding will be non-existent by the year 2059, which supports the overall trend of declining funding by the government.<sup>63</sup> This trend will either result in rising tuition fees, as previous research has shown or higher awareness towards cost minimization. In the regard of rising tuition fees, experts note that the return of investment can reach a point where study costs outweigh benefits.<sup>64</sup> Moreover, as faculty costs can approach up to 75% of expenditure, business schools will look for approaches to minimize fixed costs, e.g. higher student-teacher ratio, alliances or hiring of adjunct professors.<sup>65</sup>

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<sup>59</sup> Cf. Thomas et al. 2014a, p. 8.

<sup>60</sup> Cf. Parker and Guthrie 2010, p. 7.

<sup>61</sup> Cf. Wilson and Thomas 2012.

<sup>62</sup> Cf. Dameron and Durand 2017, p. 8.

<sup>63</sup> Cf. Miles 2016

<sup>64</sup> Cf. Wilson and Thomas 2012, p. 5.

<sup>65</sup> Cf. Dameron and Durand 2017, pp. 9-11.

Furthermore, the existing situational context has raised questions about the strategic positioning of business schools and also about their actual purpose. Peters et al. (2018) point out that only few business schools have thought about their strategic positioning and what they could do to re-position themselves in the business school landscape.<sup>66</sup> On the one hand, several experts support the view that innovative business models will emerge in the future. They continue by arguing that business schools are heavily pressured by globalization and technology and hence have to adapt in order to secure their future.<sup>67</sup> One showcase of an innovative business model, is presented in the article from Kaminski (2013). The Minerva project represents a new model with an intensive use of technology and vision of global education at a considerably lower price.<sup>68</sup> On the other hand, some experts argue that business schools might fail to keep up with the radical changes and thus perceived as irrelevant in the long-term. Additionally, they fail to provide value to stakeholders and are likely to become irrelevant and unnecessary institutions.<sup>69 70</sup>

Although in history, German business schools welcomed the American counterparts to broaden the academization, they originally arose from an interdisciplinary nature.<sup>71</sup> The interdisciplinary approach aims to achieve greater practical relevance by applying a broader view to problems. Interdisciplinary practice in higher education is the integration of two or more faculties of program, research, certification, and degree.<sup>72</sup> Following the current internationalization and technological advancement trend, Jacob (2015) argues that the higher education designates an increase in interdisciplinary research, teaching and student degree offerings.<sup>73</sup> Correspondingly, to ensure quality and comparability of qualifications, the institutions must conform to principles and regulations established by the 'Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany'. This allows the structure of core disciplinary courses to be integrated in higher education. Furthermore Klaassen (2018) writes that the interdisciplinary scenario in higher education could be the incorporation of already existing disciplines. This merger will form a new specialism with both core disciplinary

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<sup>66</sup> Cf. Peters et al. 2018.

<sup>67</sup> Cf. Thomas et al. 2014b, pp. 44–46.

<sup>68</sup> Cf. Kaminski 2013.

<sup>69</sup> Cf. Pettigrew and Starkey 2016.

<sup>70</sup> Cf. Wilson and Thomas 2012.

<sup>71</sup> Cf. Kaplan 2014, p. 532.

<sup>72</sup> Cf. Jacob 2015, p. 2.

<sup>73</sup> Cf. Jacob 2015, p. 4.

and interdisciplinary studies to create new foundational theory, methods and approaches.<sup>74</sup>

In Germany following the Bologna Protocol, the higher education programs have ideally been structured with four years of bachelor's courses and two years of master's courses, with some exceptions. They hold 180 ECTS and 120 ECTS respectively.<sup>75</sup> In order to achieve these credits, the students' need to take up mandatory courses regarding their field. Nevertheless, universities and business schools have adopted alternative courses necessary for graduates regarding their future work life. Many institutions are investing in an intensive course concept to accommodate student requirements. Authors favoring an intensive course concept, argue for an increase in demand for intensive courses in the future. Many employers recognize the need to hire recent graduates who are equipped with enough competencies, skills and an ability to adapt to changing and diverse settings. Intensive courses on language, diverse skills and interdisciplinary training needs to be formulated in business schools as a support for the graduates in their future.<sup>76</sup>

#### **4.4 Pedagogy**

Many experts in the field are raising the alarm on the current state of business schools. Miles (2016) points out that the current curriculum of business schools does not prepare students with adequate skills to succeed in the world of business. He also points out that research in business schools has little or no relevance to the practical world.<sup>77</sup> Further, Thomas et.al (2014) criticize business schools for pursuing scientific diligence at the price of pertinence.<sup>78</sup> Parker and Guthrie (2010) agree saying that research in business schools is becoming more irrelevant to the business world. They argue that academics are being increasingly disengaged from teaching, and that there is a rise of a sense of individualism caused by competition to produce publications.<sup>79</sup>

That competition to produce more publications is seen by Durand and Dameron (2011) as a serious problem. In their paper, they state that the current business school regulation mechanisms pose a risk to the survival of business schools. According to them, increased

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<sup>74</sup> Cf. Klaassen 2018, p. 856.

<sup>75</sup> Cf. Antunes and Thomas 2007, p. 388.

<sup>76</sup> Cf. Jacob 2015, p. 3.

<sup>77</sup> Cf. Miles 2016, pp. 2–3.

<sup>78</sup> Cf. Thomas et al. 2014a, p. 1.

<sup>79</sup> Cf. Parker and Guthrie 2010, pp. 7–8.

competition between schools has led to a rise in the importance of the ranking system. This system heavily relies on the number of papers published in highly classified journals to assess the reputation of business schools. They claim that this has taken the focus away from teaching. Instead hiring professors with the main objective of teaching, business schools aim to hire young academics which can produce the largest amount of publications possible. These academics usually dedicate most of their time towards publications, with very limited time given to teaching. This has led to many other adverse effects including distorting the wage market as schools intensely compete for those young scholars at the expense of more experienced academics. They also claim that this pressure to publish has led to a decline in any other form of writing such as producing books and textbooks which could be better spent producing publications.<sup>80</sup>

Many have pointed out the risks faced by business education concerning increasing student-teacher ratio, which is caused by a number of reasons including cost pressures. They argue that this has the possibility of affecting the quality of business education negatively.<sup>81 82 83 84</sup>

Morrison (2014) states that business schools need to adapt their offering to a changing world. They see a need to retool educational thinking by designing new instructional delivery models that go beyond disseminating knowledge to students through isolated disciplines. Therefore, they propose a novel model of education that combines learning in the arts and sciences with the learning provided in other professional fields like accounting, finance, marketing, and management.<sup>85</sup> Parker and Guthrie (2010) criticize that there is no evidence that suggests that a single body of knowledge being established or even a merging of disciplines is appropriate. According to them, the current publishing system does not encourage interdisciplinarity. They also argue that the business school needs to find a higher purpose in its teaching other than solely utilitarian purposes.<sup>86</sup> That call is echoed by Cornuel (2007) who argues that business schools need to apply new pedagogical approaches to grow and strengthen their value proposition. He states that there is a need for curricula to become more globalized, and more multidisciplinary. He

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<sup>80</sup> Cf. Durand and Dameron 2011, pp. 560–563.

<sup>81</sup> Cf. Thomas et al. 2014a, p. 2.

<sup>82</sup> Cf. Parker and Guthrie 2010, p. 7.

<sup>83</sup> Cf. Cornuel 2007, pp. 88–89.

<sup>84</sup> Cf. Dameron and Durand 2017, pp. 94–97.

<sup>85</sup> Cf. Morrison 2014.

<sup>86</sup> Cf. Parker and Guthrie 2010, pp. 7–8.

further argues that students will no longer be able to compete with a purely theoretical degree and that a more well-rounded education is needed. He also calls for the development of a new generation of globally responsible leaders.<sup>87</sup> Muff (2013) and Dyllick (2015) reiterate the need to develop a more multi-disciplinary current form of business education that responds to the challenges of the 21<sup>st</sup> century while offering the graduates, companies, and society a greater value than increased profits.<sup>88 89</sup>

## 4.5 Technology

The digital transformation represents a paradigm shift and will drastically affect business schools in Germany. One approach for technology supported learning is the concept of blended learning, which combines online learning and traditional face-to-face learning.<sup>90</sup> One option is the implementation and exploitation of blended learning as a key driver of learning. This view is supported by research showing that quality of teaching is twice as high compared to traditional learning methods. Further, rising costs of delivering education through traditional methods (face-to-face), high-student demand, declining resources and shortage of qualified faculty drive the usage of blended learning.<sup>91</sup> On the other hand, business schools might reject implementation of blended learning, as traditional face-to-face learning is considered more meaningful.<sup>92</sup> According to research conducted by Benson and Kolsaker (2015), 'cautious' and 'traditionalists' blended learning adapters back off from using it. This is mainly due to the fact that it imposes additional stress to students and disappointment if the technology turns out unreliable.<sup>93</sup>

Another major development in the field of education are Massive Open Online Courses. According to Kimberly and Bouchiki (2016), MOOCs have gained a lot of attention because of their disruptive potential. This new technology can help change the cost dynamic significantly, expand the reach of faculty, decentralize the idea of the classroom, and make access to education more global. They ask questions about the future challenges facing MOOCs, whether MOOCs will be able to deliver a real education experience, whether they will become financially sustainable, and to what degree they will complement/supplant

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<sup>87</sup> Cf. Cornuel 2007, p. 90.

<sup>88</sup> Cf. Muff 2013, p. 487.

<sup>89</sup> Cf. Dyllick 2015, p. 18.

<sup>90</sup> Cf. Benson and Kolsaker 2015, pp. 316–317.

<sup>91</sup> Cf. Benson and Kolsaker 2015, pp. 317–318.

<sup>92</sup> Cf. Ghemawat 2017.

<sup>93</sup> Cf. Benson and Kolsaker 2015, pp. 320–323.

the current model.<sup>94</sup> MOOC is an online platform that can be reached with an internet connection from anywhere in the world. MOOCs are designed for large numbers of participants and are open to everyone. It offers full courses and does not require entry qualifications.<sup>95</sup> MOOC has slowly retained its popularity in the world. Nevertheless, it has also invited numerous reprove. MOOC has not been able to fully provide interactive and effective online delivery due to lack of outsourcing or support from the home institution.<sup>96</sup> Although, the courses are set by professionals of their field, some university professors are rejecting MOOC implementation for their courses.<sup>97</sup> This indicates the tendency towards the preference of classroom courses. Storme et al. (2016) argues that educational technology can never be completely automated but requires certain practices.<sup>98</sup> Thomas et al. (2014) add that MOOCs have the potential to “democratize education”. However, there are questions about what relationship they will forge with traditional education, and whether they pose a threat to the idea of the university in its current state.<sup>99</sup>

Al-Zoube (2009) discusses another development in the field of technology, which is the rise of the personalized learning environment (PLE). PLE has been enabled by cloud technology. He discusses the different models made possible by this technology: Self-regulated pedagogical approach, self-regulated and teacher led pedagogical approach, and self-regulated teacher led personalized pedagogical approach. PLEs will enable students to learn through programs and courses tailored to their needs, and at their own pace.<sup>100</sup> Masud and Huang (2012) as well as Bosamia and Patel (2016) point out the benefits of adopting cloud technologies in education. They point out that they allow for a more flexible, global, cheaper, and customized system.<sup>101 102</sup> Moldoveanu and Naryandas (2019) point to the upcoming trend in business education and executive training to use the personalized learning cloud to deliver education that is tailored to the student while providing it in a contextual environment that mimics real life, minimizing the skills transfer gap.<sup>103</sup>

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<sup>94</sup> Cf. Kimberly and Bouchikhi 2016, pp. 6–7.

<sup>95</sup> Cf. OpenupEd 2015.

<sup>96</sup> Cf. Santos et al. 2014, pp. 92–109.

<sup>97</sup> Cf. Kimberly and Bouchikhi 2016, p. 6.

<sup>98</sup> Cf. Storme et al. 2016, p. 321

<sup>99</sup> Cf. Thomas et al. 2014a, p. 2.

<sup>100</sup> Cf. Al-Zoube 2009, pp. 58–64.

<sup>101</sup> Cf. Masud and Huang 2012, pp. 736–740.

<sup>102</sup> Cf. Bosamia and Patel 2016, pp. 3–8.

<sup>103</sup> Cf. Moldoveanu and Narayandas 2019, pp. 44–46.

## 4.6 Process outline

The areas of influence bundle a set of descriptors and serve to structure the project. A descriptor is defined as a descriptive parameter for an external influencing factor and has the purpose of projecting future trends which are likely to happen.

INKA 4 allows for up to five projections for each descriptor. However, to lower complexity and to develop significantly different projections, it is recommended to create a maximum of three projections.<sup>104</sup> For each projection, the project team had to assign a probability of occurrence according to existing literature and personal judgement. Per descriptor, the projections and their respective probabilities accumulate to a total sum of 100%.

In total, 19 descriptors were selected to be used for the calculation of the scenarios. In order to develop scenarios, all descriptors with their projections have to be juxtaposed. The concept of the consistency matrix, as seen in Figure 3, requires the assessment of the relationship between each descriptor (Appendix 10.2). The relationship is measured on a scale ranging from -3 to +3, as shown in Table 2. This step is highly critical for the creation of the scenarios, as it determines the consistency of the scenarios.

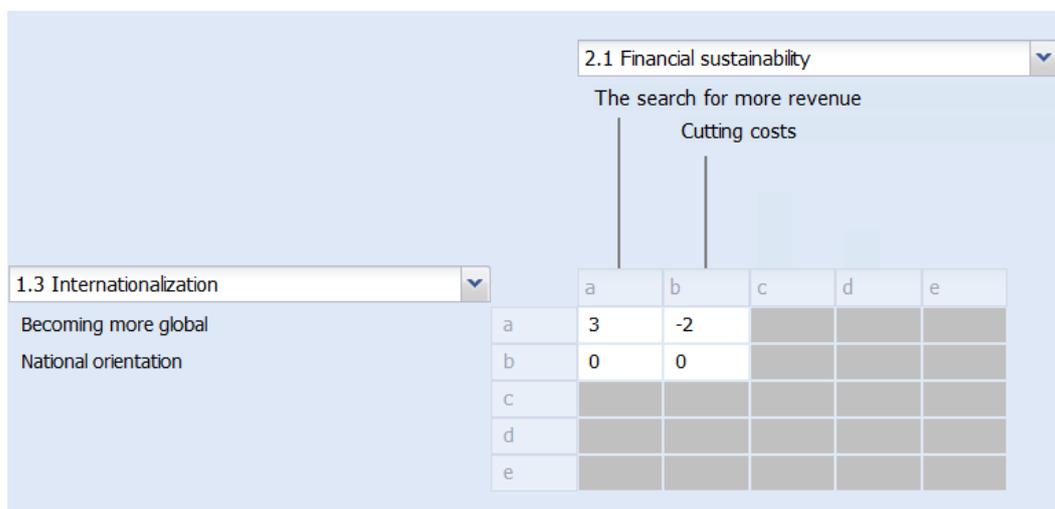


Figure 3: Example of consistency matrix analysis

<sup>104</sup> Cf. Schwarz-Geschka 2017, p. 14.

Scale	Meaning
+3	belonging necessarily together, mutually dependent
+2	supporting each other
+1	fits into the same climate
0	unrelated (coexistence possible)
-1	fits badly together
-2	contradictory
-3	mutually exclusive

Table 2: Scale and meanings for consistency matrix (Schwarz-Geschka 2017)

The assessment of the relationship between each descriptor and the assignment of values in the consistency matrix was based on the judgment of all project members according to the extensive literature review done previously. Afterwards, the calculation was started. As a result, six scenarios were developed by INKA 4. The sum of consistency for each scenario indicates the general quality of the produced scenarios. The consistency sum is based on the quality of descriptors and frequency of their use.

10. Szenarioportfolio

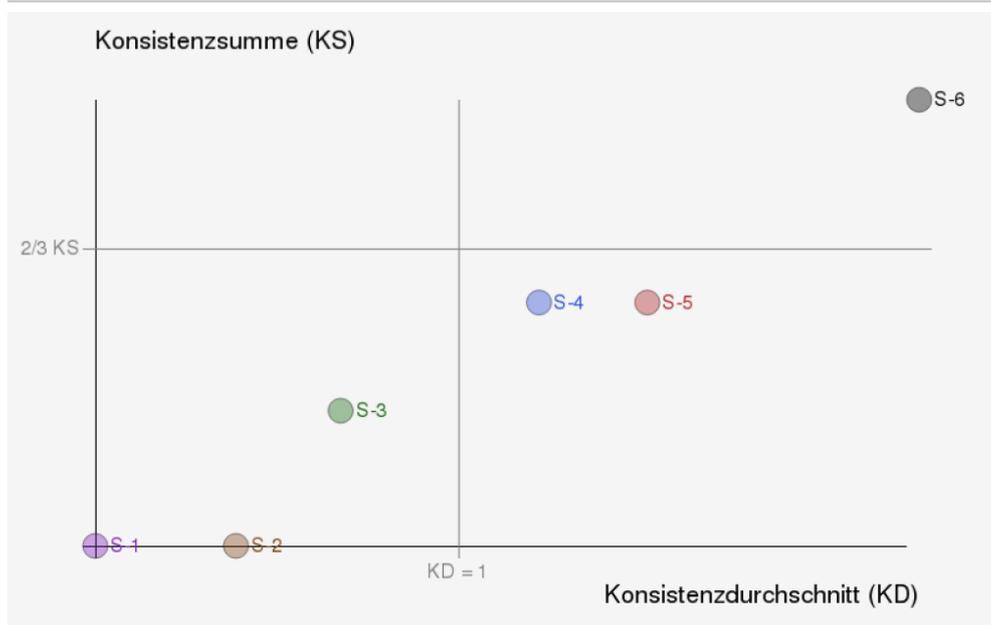


Figure 4: Scenario portfolio

Finally, the scenarios were ranked according to their consistency sum. Figure 4 illustrates the ranking of all obtained scenarios. The scenario ranked in the first place is considered the most likely. As the scenarios S-5 and S-4 as well as the scenarios S-2 and S-1 are

respectively very close to each other, the researchers decided to merge them together. Scenarios S-5 and S-4 were merged to S-5/S-4 and scenarios S-2 and S-1 were merged to S-2/S-1. This results in a total number of four scenarios instead of six scenarios previously. Consequently, the three most likely scenarios were selected to be explained. The detailed description of the three selected scenarios is given in the next chapter.

## **5. Results**

### **5.1 Scenario S-6 (Rank 1) – Make business schools “GREAT AGAIN”!**

The selected scenario S-6 has a consistency sum of 134, which is the highest probable in the ranking. Thus, it is the most likely scenario to happen in the year 2035.

The strategic positioning of German business schools in 2035 will seek for new business models. These models will welcome non-traditional teaching methods driven by technology and globalization. Business schools will accept technological advancements and welcome the recent returning trends. The demand for German business schools will prosper internationally by the year 2035. The state will proceed with high autonomy for business schools, providing them with funding to compete on the international stage. This gives the business schools freedom to construct their academics, market relation and personal decisions. As the competitive pressure amongst the business schools will grow, financial sustainability will be hindered as the search for further revenue will rise. This will influence partnerships with companies as the bridge between the business schools and industry will strengthen. This relationship will result in increasing relevance of business schools in the market, creating an increase in demand.

The business schools will upgrade from only pursuing rankings and accreditations and move towards a new market image. This grandstand will require business schools to restructure their strategic positioning. Consequently, they will innovate their model to adjust to the changes. The innovation will welcome changes in program structure, education system, teaching methods and academic focus. Moving beyond the market image, business schools will no longer validate rankings. As rankings previously were heavily based on professor publications, business schools will now shift towards more practical relevant research. This academic research focus will influence students to conduct practical research, based on the needs of the business community.

As technological advancements take place, it advocates for a non-traditional, personalized, socialized, and adaptive education, which will be different than traditional teaching methods. The academic model will shift towards applied management as business students will no longer be able to compete with only a theoretical degree. Search for funding will bring cost pressure in business schools and they won't be able to provide competitive salaries to the professors. Thus, the student teacher ratio will increase. Business schools will realize the need to add value to the society and anticipate a new generation of globally responsible leaders. They will implement technological advancements in the field of education. Blended learning, personalized learning and MOOCs will continue being implemented in the academics to further enhance the education experience.

## **5.2 Scenario S-5/S-4 (Rank 2) – Multidisciplinary, part-time, global? WHY NOT!**

This scenario has a consistency sum of 104. The outcome in scenario S-5 and S-4 are almost identical and as a result they have been merged together as mentioned earlier.

The main difference between them is how business schools choose to be perceived. In scenario S-5 business schools choose to continue down the road of placing a great importance on ranking, continuing to so at any price. However, in S-4 business schools opt for a different path, they focus more on the quality of education provided and find alternate ways to prove their credentials. The greater degree of autonomy given to business schools and the increased level of competition pushes business schools in the direction of becoming more global and finding new revenue streams. Business schools bridge the gap between business and practice to become more relevant. As a result, there is more innovation in the business school model. There is a greater focus on teaching applied management and moving towards practical research. The multidisciplinary course structure becomes the norm, and instead of only offering full programs, business schools focus more on an intensive course concept. As a result, part-time studies become the norm.

There is a continuous growth in demand which coincides with an increase in the student-teacher ratio, and teaching methods remain largely unchanged. A push for more value to society succeeds in achieving its goals and there is a trend for a more globally responsible

generation of leaders. The rise of new technologies is fully adopted by business schools with blended learning, MOCCs, and PLEs being implemented.

### **5.3 Scenario S-3 (Rank 3) – Innovation Overload!!!**

This scenario has a consistency sum of 88, which leads to the third overall rank. This scenario is characterized by the innovation of teaching methods. Non-traditional teaching methods are adopted by business schools in a bid to stay viable in the wake of increased competition in the market. Business schools usefully leverage technology and blended learning, MOCCs, and PLEs become ubiquitous tools. Business schools are given much autonomy by the government and business schools forge tighter ties to the business community. The greater competitive pressures force business schools to look for new sources of revenue. However, there is no change in the business school model.

Most programs are offered as interdisciplinary course offering, and there is a greater focus on the intensive course concept. Part-time studies gain importance and become more prevalent as a result. Business schools maintain placing a great deal of importance on the ranking system. There is a greater focus on applied management teaching and research becomes more practical. The student-teacher ratio increases. Business schools realize that they need to offer something more to society a new trend for training globally responsible leaders emerges.

## **6. Discussion of Results**

The three final selected scenarios represent the diversified possibilities how business schools in Germany will look like in the year 2035. Those scenarios vary from each other regarding the prospective development of business schools. Generally, the differences between obtained scenarios was relatively small (Appendix 10.3). Nevertheless, the main differences were identified in the fields of innovation in business schools models, program structure, importance of external ranking and accreditation, teaching methods, and general purpose of business schools. The single most striking difference was in the field of strategic positioning. Two scenarios argued for the emergence of innovative business schools models in the future. In contrast, the other two scenarios supported the view that no change will happen. Further, business schools will stick to their traditional business model.

These results provide considerable insights into the transformation of business schools and a spectrum of various plausible future projections. Based on current information and literature, the findings of this research project can be seen as valid estimations.

## **7. Summary**

In this paper we have investigated possible scenarios how the future of German business schools will look like in the year 2035. In order to examine and identify current trends and drivers which affect business schools, a diligence literature review was done. Based on this, the scenario planning technique was used to generate future scenarios. The scenario software INKA 4 supported the generation of those scenarios.

On the basis of an extensive literature research five key areas of influence were detected, explicitly Environment, Supply, Demand, Pedagogy, and Technology. Further, a total of 19 descriptors with respective projections were selected and constructed. Additionally, the relationship between each descriptor was assessed by the project team and incorporated into the consistency matrix.

The final scenarios, which are based on the developed descriptors and their respective projections, ultimately aim to outline all future aspects of business schools in Germany. To sum up, this work has produced four final scenarios from which three were selected and illustrated in detail.

## **8. Conclusion**

The results of this study indicate that the business school landscape is expected to change considerably in the upcoming years. In conclusion, the overall results support the view that competition level will continue to increase. In order to survive in this competitive market, tuition fees of study programs are likely to rise. This ensures financial sustainability of business schools. Further, they will strongly push towards international expansion enhancing their comparative and competitive positioning. Moreover, business schools will move in the direction of applied management and practical research. Hence, the relevance gap between theory and practice will shrink. The results also imply that the concept of awarding degrees will still be relevant, but a trend towards part-time studies is undeniable. In addition, there is a clear probability that business schools will see continuous growth in demand. Beyond that, the digital transformation and new

technologies significantly affect management education provider. Business schools will most likely adopt and integrate Blended Learning, Massive Open Online Courses, and Personalized Learning into their study programs.

Taken together, the findings suggest a significant change by 2035 and add substantially to the understanding of the future of German business schools. Ultimately, considerable insights have been gained with regard to the advancement of German business schools. These findings add on to a growing body of literature on the general understanding of the uncertain future of business schools.

## **9. Limitations**

However, this work clearly has some limitations and it is plausible that they could influence the obtained results. Firstly, the current work was not specifically designed to take several unpredictable factors such as potential disruptive changes into account. Secondly, the probability of occurrence and assessment of relationship among all projections is based on the judgement of the researchers supported by extensive literature review. This could lead to difference in results. Hence, the developed scenarios for the year 2035 cannot be considered as a precise prediction of the future.

Despite the fact that there are limitations, the results of our work provide a starting point for thorough thinking of all stakeholders regarding the future of German business schools to take feasible action. Several courses of action can be derived from the present findings of this research in order to maintain the status of German business schools and increase their relevance.

## 10. Appendix

### 10.1 List of final descriptors

#### Environment

**Descriptor Name:** State regulation

**Area of Influence:** Environment

**Current Situation:** The Framework Act for Higher Education, introduced in 1976, regulates the higher education system in Germany on a national level through a small number of standards. However, due to the federal system in Germany, the federal states are primarily responsible for higher education. Each state regulates the higher education sector through their own laws. Hence, the higher education structure differs from state to state. Moreover, the federal states guarantee funding of the higher education system in Germany. Around 75% of the total funding is covered by the federal states. In general, funding is one of the key instruments for the government to enforce their goals, set incentives and maximize desired output.

#### Specification A:

- **Name:** Higher autonomy for business schools
- **Description:** Greater degree of autonomy is granted to business schools in order to allow them greater control in decision making.
- **Reason:** Governmental business schools have a greater scope of freedom when making academic, financial and personnel-related decisions. For instance, this includes greater control over admission criteria and how they attract faculty. Governmental institutions are able to establish their own statutes and are free from federal state influence in legislative, executive and judicial matters. Moreover, the government strengthens the autonomy of management education providers with a sufficient level of funding to ensure achievement of set targets and international competitiveness of German business schools.
- **Probability:** 40%

### Specification B:

- **Name:** Increased number of state initiatives
- **Description:** Instead of granting higher autonomy, the state will launch an increasing number of initiatives to allow business schools to realize future concepts and support the competitiveness of German management education.
- **Reason:** Those initiatives on a national level will enable German business schools to improve their international competitiveness. In particular, it enables institutions to realize future concepts and achieve scientific excellence. One example of such an initiative is the “excellent initiative”, launched in 2012 in collaboration with the German Research Foundation, which selected future concepts for funding.
- **Probability:** 60%

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**Descriptor Name:** Competition

**Area of Influence:** Environment

**Current Situation:** In recent years, various forces including globalization, success of management education and overall market growth have greatly increased competition among business schools. Moreover, the market entry of for-profit providers has significantly heightened the competition level in Germany.

**Specification A:**

- **Name:** Increase in competitive pressure
- **Description:** The competition level in the business school landscape will continue to increase.
- **Reason:** Due to a growing number of private entrants running for market share and profits, as stated in the work of Thomas et al. (2014), competition will most likely intensify. For instance, for-profit providers like “Hult” or “Apollo” have been disruptive with their model to offer low-cost, high-quality education. Additionally, Universities of Applied Sciences add pressure to existing competition in Germany, as noted in the work of Durand and Dameron (2017). Moreover, globalization will extend competition to a broader scale which results in a hyper-competitive environment for business schools. Hence, business schools have to compete for faculty talent and students in a crowded and highly competitive market, because of the emergence of global providers and recent market developments.
- **Probability:** 60%

**Specification B:**

- **Name:** Intensified market segmentation
- **Description:** Existing competition results in intensified market segmentation. Business schools will search for differentiation strategies.
- **Reason:** According to previous research conducted by Thomas, Wilson and Lee (2014), there is a widespread view that competition will result in intensified market segmentation. Business schools will try to differentiate themselves from other market players by applying distinct strategies. For example, this entails a

strategic orientation towards niche segments in the market or the emergence of different business school models.

- **Probability:** 40%

**References:**

- Dameron, Stéphanie; Durand, Thomas (2017): The Future of Management Education. Challenges facing Business schools around the World. Volume 1. London: Palgrave Macmillan UK. pp. 82-90.
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**Descriptor Name:** Internationalization

**Area of Influence:** Environment

**Current Situation:** The internationalization is a disruptive force of change within the business school environment. On the one hand, it has drastically changed the dynamics of competition as well as former practices, assumptions, and strategies. On the other hand, there are several reasons for business schools to internationalize, e.g. generation of new revenue streams, self-transformation, exploitation of opportunities beyond their national borders, collaboration with other schools, brand building, etc. In general,

internationalization requires many resources and consequently represents a complex and great challenge to business schools.

**Specification A:**

- **Name:** Becoming more global
- **Description:** Internationalization is a major driver for change, which is inevitable for all business schools. They will strongly push towards internationalization to enhance their comparative and competitive positioning.
- **Reason:** As national markets are already matured, business schools are pushed to internationalization in order to secure their development. Internationalization allows them to commercialize knowledge and exploit opportunities beyond their national borders with desirable returns. Moreover, they will be able to expand their recruitment scope to a global level to ensure future growth. Furthermore, globalization provides the opportunity to define how management education should look like. Ultimately, global business schools can enhance the educational experience for their students and prepare them to work in a world of global business competition.
- **Probability:** 65%

**Specification B:**

- **Name:** National orientation
- **Description:** Despite the trend towards globalization, business schools are strongly embedded in their national environment and will continue to focus on their regional market. Those institutions maintain a strong national orientation to their country of origin.
- **Reason:** The vast majority of business schools continue to focus on their regional setting. Becoming more global is of subordinate importance for business schools, as they seek for a territorial recognition. Their objective is to cover the needs of the local economy by offering management education to students who later will be hired by local firms from the same area. Consequently, business schools are strongly embedded in their local territory and dedicated to offer education to the territorial needs.

- **Probability:** 35%

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**Descriptor Name:** Partnerships with business community

**Area of Influence:** Environment

**Current Situation:** In the history, there has been much debate about the perceived relevance of business schools in addressing the needs of the business community. This relevance gap, describes the issue of balancing the production of high-quality academic research while addressing practical management. It is often argued, that business school research is too abstract and has almost no impact for practice. Ultimately, students are not well prepared for their future career.

### **Specification A:**

- **Name:** Bridge between business schools and industry
- **Description:** Business schools and the business community are breaching boundaries to minimize the relevance gap between theory and practice.
- **Reason:** In order to move closer to the practice of management, business schools forge strategic partnerships with the business community. This enhances relevance and overall awareness of entrepreneurial and innovative skills. Strong bridge and exchange of knowledge between the two worlds will result in increasing relevance of business schools. Additionally, this will represent a great competitive advantage for business schools. Ultimately, business schools will produce better and more skilled professionals.
- **Probability:** 65%

### **Specification B:**

- **Name:** Weak links to the business community
- **Description:** Business schools will mostly not engage with practice. Hence, the gap between theory and practice will become larger.
- **Reason:** The relationship with the business world is poor, as business schools fail to provide value to those stakeholder. According to the work of Thomas et al. (2014), the gap between knowledge production and practical relevance is getting wider. This results in a disconnection between both worlds and finally into a weak partnership. In conclusion, without a clear value proposition for the business community, business schools become redundant.
- **Probability:** 35%

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## **Demand**

**Descriptor Name:** Duration of study

**Area of Influence:** Demand

**Current Situation:** The effects of globalization and information and communication technologies have changed the demand of business equation. While some students prefer the traditional full time approach, the demand for part time studies where students must attend classes only some days of the week is generally increasing. This also gave rise to approaches like the “Duale Hochschule”, where students can study part time and work part time with a company. The cooperation with organizations has also led students to tie up with companies and the universities to encourage work and studies ethics.

### **Specification A:**

- **Name:** Full time studies
- **Description:** The nature of business courses is to produce learning outcomes of consistent educational value, be it theoretically or practically. From case studies to plant visits, the business school needs to demand a certain workload from

students. Furthermore, when it comes to understanding of the complex and ever changing business markets, it is essential to invest time and energy in school to make a practical use later. Rather than companies endorsing the education of their potential employees now, they need to focus on the overall output of a student, making him/ her ready for facing any situation in the job market.

- **Reason:** The university-based business school as we know it, will continue having its full time requirements and extensive input from its students focusing mostly on academics. Extensive full time studies will still be preferred by a selected group as it allows the necessary reflection and analysis of the material being taught. Courses that are discursive and heavily demanding such as the Masters of Sciences (M.Sc.) usually need a great amount of input from the students. The ranking metrics and accreditation methods are also standardized according to full time studies and effective amount of workload. The planned-out business programs such as the Master of Business Administration (MBA) isn't going away anytime soon. Alternative credentials have not been able to pick up the same acceleration as the MBA in the job market.
- **Probability:** 65%

#### **Specification B:**

- **Name:** Part time studies
- **Description:** Due to high demand from the corporate communities as well as the students, universities are now pressured to introduce courses that provide part time studies where they can study alongside working. This might also include an affiliation from companies. A likely scenario in the future is a division of education outside of the usual university academics. Part time studies including self-study, dual studies, shorter programs or flexible degree certification are all upcoming trends that might become disruptive in the future.
- **Reason:** The idea of acquiring a degree in a specific particular course, acquired from any university around the world was a vague idea in the past. Today, abolition of tenure and increased use of customized, project-based research contracts has the power shifting from institutions that provide bundled degrees to students.

Nevertheless, education is complex to measure and accredit. Thus, these part time courses need to be of a redefining quality.

- **Probability:** 35%

**References:**

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**Descriptor Name:** Market image

**Area of Influence:** Demand

**Current Situation:** The internationalization and creating a global business school brand has become a trend to attract investors, professors and students. Due to abundance of facilities, resources, research support and elite professors, some universities claim to be the best of the best in the market. While the trend in Europe mainly depends on internationalization and career progress, the European business schools are not far behind to be accredit by the ‘European Quality Improvement System’ (EQUIS) as of high ranking. But it comes with a major account on keeping the true value of education and research at stake.

**Specification A:**

- **Name:** Importance for external ranking and accreditation
- **Description:** The major key accreditation bodies in Europe are ‘The Association to advance Collegiate Schools of Business’ (AACSB) and EQUIS. Regulation and ordinance of various range of programs are done by these bodies. These bodies assure that scrutinizing business schools and their portfolio is done in strict quality

standards. Recently, Europe has also adopted the trend of listing its business schools as prestigious in the international market. In Germany, the University of Mannheim, European School of Management and Technology (ESMT) and HHL Leipzig Graduate School of Management fall under reputed universities competing in the global market.

- **Reason:** Reputation clearly influences the patterns of various investors as well as business school students. The competition for resources in these schools will be high, thus leading to better education, quality, infrastructure, and market image. Although German business schools do not have the same strategic orientation as business schools around the world, they position themselves in the market reflecting closely the cultural and competitive characteristics of its market. Thus, in the international dimensions, accreditation and rankings need to be prioritized in German business schools.
- **Probability:** 70%

#### **Specification B:**

- **Name:** Moving beyond the market image
- **Description:** Although the “clients” of business schools have preferred to admit in prestigiously accredited business schools in the past, the future does not hold the same thinking. Rankings of schools can be biased in terms of measuring the qualities that make the school stand out. They have a strong impact for the economic future of business schools and their quality, but arguments have been made against it. The list of standardized quality has been criticized as a one size fits all metric to assess only research conducted by the professors. The goal of achieving research publications put the professors into pressure. This has been heavily criticized as the consideration of publications is seen as one of the most important elements.
- **Reason:** The use of the same metrics to rank business schools might lead to conservatism. This could lead to missing out on other potential factors regarding the quality of the business school education. Conservatism in salary, research, and alumni criteria follow the same traditional patterns in most of the high ranked business schools. The development of alternatives on accreditation institutes need

new, nonacademic providers. The existing reputation of high ranked business schools in the market provides a hierarchy. This creates a strict barrier for the entry of new upcoming schools which could contribute better in terms of the quality of education.

- **Probability:** 30%

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**Descriptor Name:** Demand analysis

**Area of Influence:** Demand

**Current Situation:** The demand for business schools is increasing with the years. With strong reputation and brand image, business schools are growing continuously every year. On the other hand, the business education is also losing its audience as the target pollution is shifting more towards the dependency on technology, part time intensive and open online courses to attend education. The dependency arises on whether the business schools provide unique and more value than modern platforms.

**Specification A:**

- **Name:** Continuous growth in demand
- **Description:** Business itself is a large part of everyday economy. Thus, learning the essential and core on the best environment can only lead to professional upbringing as well as the social contribution nationally and internationally. The students who graduate from business schools provide an advantage and pillar to the world economy. They have the necessary insights that are related to the business market. This growth must be made aware and managed for its educational and social value. The core value of business is academics which should

not be otherwise. With the appropriate focus on present advancements and value, business academics will make a worthy academic contribution.

- **Reason:** The process of creating value can be compared to a production-based model where a selected input (qualified students) arrives at a manufacturing plant (called a school) where it is processed by knowledge professionals (called the faculty) to deliver an output (the knowledge-certified graduates) who are then distributed (through placement services) to jobs around the world. Taking this into account, the value of business school will grow increasingly as the basic understanding and in-depth knowledge related to the academics can only be provided by pure education. To handle the increase in demand, rather than focusing on publications and being profitable, providing academics and control needs to be done. The academics and students are engaged into holding intellectual business conversations which are otherwise impossible.
- **Probability:** 60%

#### **Specification B:**

- **Name:** Decrease in demand
- **Description:** Although business schools have maintained their demand until now, the advancement in technology and the youth minds have made it difficult to sustain it.
- **Reason:** There is a chance that the business school and the traditional quality they provide may wither by time. Demand involves risk, changes in student subsidies, and international and local competition. The entry of online programs and private higher education providers pose threats to the viability of business schools and its disciplines. Business schools have been highly successful in commodifying higher education and contributing financially to their universities but the opposition towards alternatives are increasing.
- **Probability:** 40%

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## Supply

**Descriptor Name:** Financial sustainability

**Area of Influence:** Supply

**Current Situation:** In general, it is an absolute necessity to ensure financial sustainability of business schools in the long term. Current financial models may be difficult to sustain in the future. Nowadays, the major revenue streams for business schools stem from the tuition fees of the programs, public funding, donations from alumni or sponsors and chaired professorships donated from companies. As state-owned universities in Germany do not charge tuition fees, they are mostly reliant on public funding by the federal state. In comparison, most private institutions in Germany charge tuition fees. However, in many countries government funding has been dramatically cut in recent years.

### Specification A:

- **Name:** The search for more revenue
- **Description:** Business schools will inherit the role as “Cash Cows” in order to be financially sustainable moving on into the future.
- **Reason:** According to the work carried out by Miles (2016), state funding will be non-existent by the year 2059. Therefore, Business schools have to adapt to this situation and allocate new sources of funding. One way is through high tuition fees from fee-paying international students and postgraduate students. Previous research has shown that tuition fees increased by 157% from FY 1964 to FY 2013. Moreover, the shortage of faculty and the high salary costs make it increasingly difficult for Business Schools to survive in this competitive market. This will result in a continuing rise of tuition fees.

- **Probability:** 50%

#### **Specification B:**

- **Name:** Cutting costs
- **Description:** As the current business model of business schools is highly cost intensive and at risk due to serious financial pressure, institutions have to pay greater attention to cutting costs.
- **Reason:** So far students perceived the study costs at a business school as an investment for their professional future to secure well-paid jobs after graduation. However, the return of investment could reach a point where study costs outweigh benefits. Hence, business schools have to heavily cut costs. Firstly, salary costs are high and can approach up to 75% of university expenditure, business schools try to minimize costs with a higher student-teacher ratio. Secondly, they will hire more adjunct professors (also called practitioner, non-research or teaching professors). This attempt, called “adjunctification” has the objective to decrease faculty costs. Moreover, to lower fixed costs of investments into new technologies and internationalization, mergers and alliances between business schools will happen.
- **Probability:** 50%

#### **References:**

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**Descriptor Name:** Strategic positioning

**Area of Influence:** Supply

**Current Situation:** The current situational context has raised questions about the strategic positioning of business schools as well as their actual purpose. In addition, this has led to higher interest into research of the construct of business schools and the innovation potential in the business school industry. Peters, Smith and Thomas (2018) argue that only few business schools have yet looked in the mirror to evaluate their strategic positioning and what they could do to re-position themselves in the business school landscape.

**Specification A:**

- **Name:** Innovation in business school models
- **Description:** Innovative business models will emerge in the business schools landscape in order to cope with the ongoing change and secure their future.
- **Reason:** Without readjusting their strategic positioning, business schools have a high risk of going down in this competitive environment. According to Thomas et al. (2014), there are two key pressures for innovations in Business School models. Firstly, globalization requires an urgent need to restructure the business school model. Secondly, technology causes a paradigm-shift and will dismantle existing business school models in the long-run. The article from Kaminski (2013), “Ben Nelson: The Man Who Would Overthrow Harvard” (Wall Street Journal), showcased an interesting example of an innovative business model. The Minerva project represents a new model with an intensive use of technology and vision of global education at a considerably lower price. This will force other institutions to adapt their existing business model.
- **Probability:** 60%

### Specification B:

- **Name:** No change
- **Description:** Business schools will continue what they were doing and stick to their traditional business model. They fail to keep up with the radical changes in the global business environment and thus perceived as irrelevant.
- **Reason:** Business schools resist to change their business model and continue to provide traditional management education. They continue to disengage with practice, thus the gap between practice and academia continues to grow. In the long-term, they fail to provide value to stakeholders and are stuck in a paradigm trap. In the article written by Wilson and Thomas (2012), the authors argue that if business schools resist to change, they are likely to become irrelevant and unnecessary institutions operating on the sidelines of key social, economic and political issues. In conclusion, business schools will lose legitimacy and slowly disappear.
- **Probability:** 40%

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**Descriptor Name:** Program structure

**Area of Influence:** Supply

**Current Situation:** Generally, business schools in the past focused on core disciplinary courses mainly consisting of majors like Accounting, Strategic management or Statistics. These days, the trend of interdisciplinary courses is immensely growing. The upcoming trend in business schools is now focused on interdisciplinary consisting of courses limited not only to the business area but also including various other sectors like cross cultural collaboration, communication and philosophy.

**Specification A:**

- **Name:** Interdisciplinary course structure
- **Description:** Interdisciplinary approaches to research and training are essential to meet the dynamic needs of today's higher education students.
- **Reason:** The business schools have started to indulge in the trend of interdisciplinary courses. In the field of management and business, courses like human resources (HR), organizational behaviors and international studies have made their way into the curriculum. Perhaps the change comes through globalization or realization of the fact that business education required not only methodological management teachings but also integrated team teaching

approach in both private and public sectors. Similarly, the interdisciplinary courses include behavioral and societal skills along with business education. Being aware about the areas such as sustainable development, communicative and multicultural awareness are taken as major skills in organization's today.

- **Probability:** 70%

#### **Specification B:**

- **Name:** Core disciplinary course structure
- **Description:** Business administration started as a field with concerns for solving operational problems in corporations. Subjects such as economics, accounting, organizational methods and strategic formulation are some core subjects that still exist since the first institutionalization of business administration at the beginning of the 20th century.
- **Reason:** In Germany following the Bologna Protocol, the bachelor programs have ideally been structured with four years of bachelors and two years of master's courses with some exceptions. They hold 180 ECTS and 120 ECTS respectively. Although, these have been cases where this system is not strictly applicable, most master courses in University of Applied Sciences have core content focused on marketing management, finance, business or consulting. Bachelor courses also provide knowledge on business administration through mathematics, statistics, and HR with sub-disciplines such as accounting, marketing, and economics.
- **Probability:** 30%

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- Hawawini, Gabriel (2005): The future of business schools. In *Journal of Mgmt Development* 24 (9), pp. 770–782. DOI: 10.1108/02621710510621286. p. 6-7.
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**Descriptor Name:** Structure of education system

**Area of Influence:** Supply

**Current Situation:** Attending classes and lectures these days has been swiped away by areas like technology and mass learning. This has heavily impacted the concept of general degrees. For instance, the MBA program has got a lot of backlash following its traditionally way of teaching which is not relevant in the market anymore. Thus, business schools must embrace intensive courses to focus on students who cannot attend full time lectures to get a degree. Intensive courses focus on the core studies of interest, as they do not have to fulfill the entire course structure criteria.

**Specification A:**

- **Name:** Existence of degree concept
- **Description:** The Bologna Accord 1999 changed the education system in Germany. Degrees such as the MBA took up the most credit when it comes to business school education. It is estimated that although other practices will gradually be introduced, the degree concept is not going anywhere soon just because of its reputation and accreditation.
- **Reason:** The school system in Germany shifted from a diploma degree to a bachelor's degree lasting three or four years and the master's degree lasting from one to two years after the Bologna Declaration. This trend has been increasing in business schools such as Koblenz, Mannheim Business School and ESMT, but has not taken over all German business schools. The degree consists of disciplinary courses along with electives. The focus on a degree with compact courses and is known for its relevance to narrow down the focal path and help students focus on particular areas. This system centralizes the mantra of knowledge for knowledge's sake and not bowing to the pressures of immediate practical relevance. On the teaching side, a more scholarly, intellectually, and rigorous approach is taken.
- **Probability:** 75%

**Specification B:**

- **Name:** Intensive course concept

- **Description:** The recent trend in business education has shifted its focus to intensive courses-semester- or quarter-equivalent classes offered in compressed formats. Moreover, the idea of an individual core concept has been introduced where students can get a degree in single courses from different educational institutions.
- **Reason:** The intensive course concept was introduced primarily to the population of students who preferred non-traditional learning style due to reasons such as time and money constraints. Block teaching was introduced, which basically provides learning in a setting requiring more intensive time and effort from a student with the aim of flexibility for diversity of instructional activities. The intensive courses do not have much to do with the pedagogy or the teaching style but rather to meet the needs of the students. Here, one can also say that the business schools act as a business itself and the students as their clients.
- **Probability:** 25%

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## **Pedagogy**

**Descriptor Name:** Teaching methods

**Area of Influence:** Pedagogy

**Current Situation:** There is criticism of the fact that there is not a single unified ‘body of knowledge’ that encompasses what should be taught in business schools. There is debate on whether there is over-emphasis on business and analytic skills and under-emphasis on skills such as leadership, problem framing, problem solving and integrative thinking. Some experts point to the need to develop blended programs that are forged from a partnership of business and academia. These programs would aim to shape managers’

minds with the required soft skills to manage effectively. The beginnings of business education in Germany saw a conflict between a practice-based approach and theory-based approach. One of the main concerns of the business discipline is the development of methods and tools to solve operational problems in corporate practice. In general, there are many advanced bachelor's and master's classes that leave plenty of room for non-traditional teaching methods.

**Specification A:**

- **Name:** Nontraditional teaching methods
- **Description:** German business schools rethink and redesign their offering. They develop, design, and become market leaders in applying new nontraditional teaching methods, guiding organizations that operate directly in the market into this new field. These new methods make use of advances in technology to offer customized and socialized programs, where learning is contextualized.
- **Reason:** Traditional approaches are seen to be no longer adequate in providing students with relevant soft skills and competencies. Problems include that traditional education methods focus on discipline-based skill sets, and seriously underplay important relational, communication, and affective skills. Another problem is the skills transfer gap, the greater the gap between the locus of learning and the locus of applying what is learned the greater the difficulty of applying the new knowledge or skills will be. Aided by technology there is an emerging trend that advocates for a more personalized, socialized, and adaptive education. Since organizations operating in the market require guidance in new ways to develop and test new skills, some experts believe that business schools need to reconfigure the programs they offer to establish themselves as market leaders of this new trend by offering programs that focus on customized blended programs that leverage the classroom only when necessary.
- **Probability:** 65%

**Specification B:**

- **Name:** No change

- **Description:** Business schools do not make any major changes to their offering. Their programs continue to apply the traditional classroom setting and they fail to keep up with the business environment.
- **Reason:** According to Thomas et.al (2014) no change would be the worst possible outcome for the future of business schools. In this scenario schools adhere to the status quo without making any major changes. They fail to keep up with changes in the business world and become more separated from the business environment, making them more insignificant.
- **Probability:** 35%

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**Descriptor Name:** Academic focus

**Area of Influence:** Pedagogy

**Current Situation:** Teaching structure in German universities offer programs that are more theoretical. More practically oriented types of schools have emerged to compete with universities. The biggest competitor in the domain of business education to universities are Universities of Applied Sciences. These tend to be more practically oriented, and typically have a higher student-teacher ratio. Another type of institution that competes in the domain of business education is the University of Cooperative

Education (UCE). UCE were founded on the idea that theoretical and practical knowledge are inseparable. Questions are being asked as to whether business education belongs at universities. The pressure was compounded by the adoption of the Bologna process, that led to narrowing the gap between universities and UAS as degrees from both types of schools became comparable.

#### **Specification A:**

- **Name:** Focus on applied management
- **Description:** In this scenario universities in Germany offering business programs merged with UAS to form institutions that have an advantage of offering specialized interdisciplinary business education. Reducing competition between general universities and UAS and allowing more students to study business in combination with a more technical education. There is also a move to offer multidisciplinary programs.
- **Reason:** A major development in business education was the opening of general business programs to other disciplines including law, engineering, psychology, and social sciences. Since business schools are seen by many experts to belong more to UAS than the university there has been a push to merge business schools in universities with UAS, also recommended by the German Council of Science and Humanities. For instance the actual merger of two institutions (University of Cottbus and University of Applied Sciences Senftenberg) into 'BTU Cottbus-Senftenberg' in eastern Germany. These developments have a big impact on the subjects being taught. Some experts note that business students will no longer be able to compete with a purely theoretical degree in the job market, and that there needs to be a push in business schools to widen the scope of subjects offered to increase the practical relevance of what is being taught.
- **Probability:** 65%

#### **Specification B:**

- **Name:** Academic model
- **Description:** Business schools move towards an even more academically rigorous approach.

- **Reason:** In this scenario business schools resist calls for immediate practical relevance business schools focus more on academic rigor. Creating knowledge for knowledge's sake and focusing on theory. A more scholarly, intellectually rigorous approach would be taken in teaching. With higher spending on research and PhD programs. Thomas et.al (2014) point out however that there are several problems in this scenario. First, there are not enough doctoral degrees in the last few years. Also, it very difficult to justify research that has no relevance to real life. They conclude that it will be difficult to ignore calls for a more practically oriented model.
- **Probability:** 35%

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**Descriptor Name:** Academic research focus

**Area of Influence:** Pedagogy

**Current Situation:** Faced with pressure to publish journals caused by ranking pressure business schools tend to sell research as a legitimizing ingredient of its brand. The pressure frames the mind of young faculty, focus is directed away from quality of teaching and writing books towards publishing articles. It makes universities focus on hiring academics who focus primarily on research instead of hiring professors with practical knowledge of the business world. However, most of the candidates that successfully manage to receive a doctoral degree move from academia into the practice of management. Which begs the question of the usefulness of purely theoretical research.

### **Specification A:**

- **Name:** Research more grounded in academia
- **Description:** Business schools focus on knowledge creation and adopt a more rigorous scholarly approach with a focus on research.
- **Reason:** The judges of the merit of the research being conducted are peers and as a result research tends to be directed at them, sometimes with little or no relevance and usefulness to the industry. This focus on research may distract from pedagogy at business schools and widen the gap of the practical relevance of the education offered between more research-based schools and more practically oriented schools.
- **Probability:** 45%

### **Specification B:**

- **Name:** Moving towards practical research
- **Description:** Business schools forge closer ties to the business community mimicking other professional schools.
- **Reason:** There is a greater sharing of knowledge between academia and the practical world. Research would be conducted based on the needs of the business community. There are a few problems with this scenario. Firstly, unlike other professional schools, there is no consensus on what a business education should include or what specific skills need to be taught. Another issue with this scenario is that forging strong ties between business and research could lead to a conflict of interest and a contamination of the field of research.
- **Probability:** 55%

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**Descriptor Name:** Student-teacher ratio

**Area of Influence:** Pedagogy

**Current Situation:** Some schools have cut down the costs of their PhD programs. This combined with a general decrease in the number of doctoral degrees awarded has significantly decreased supply of teaching staff in the market. Shortage of faculty in the market has led to an increase in salaries and a difficulty in recruiting. This leads to a higher student-teacher ratio, and negatively impacts the quality of education. This has been a problem for many schools, which have resorted to cutting staff costs in order to survive. Business schools are known to have one of the highest student teacher ratios compared to other schools. The increased competition has been a problem particularly for European schools as they do not have the same resources to compete with their US counterparts. As a result, most of the top talent end up in the US. To solve this problem some schools have resorted to hiring part-time faculty from other disciplines or retired business professionals.

**Specification A:**

- **Name:** Increase in student-teacher ratio
- **Description:** In this scenario the number different pressures force schools to an increase in student-teacher ratio.
- **Reason:** One possible response to increasing competition could be a trend of cutting costs of PhD programs. This decreases the amount of PhD graduates would mean even it would become even more difficult for schools to hire new recruits. In addition, cost pressures and shortage of funding would mean that German schools would not be able to provide competitive salaries. This would increase the student-teacher ratio and could possibly constitute a “race towards the bottom”. The reputation of business schools and quality of education would suffer as a result.
- **Probability:** 50%

### **Specification B:**

- **Name:** Decrease in student-teacher ratio
- **Description:** Another possibility to respond to increasing competition would be an increased funding from the government.
- **Reason:** Increased funding would give business schools more funds and a greater potential to compete in the market for instructors. Increased funding could also lead to an increase in the number of PhD graduates as more funding is made available for research, and as doctoral education becomes more attractive. This would improve the quality of education and provide business schools with new opportunities.
- **Probability:** 50%

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**Descriptor Name:** Purpose of the business school

**Area of Influence:** Pedagogy

**Current Situation:** Consecutive corruption scandals and the damage caused by the financial crisis have led many to question the role of business schools. Some have went

as far as pointing the blame at business schools, accusing them of teaching students how to bend the rules, and a general lack of morality and responsibility. While several business schools have developed innovative strategies for engaging students in the challenge of providing ethical leadership, the assumption of many faculty and program leaders that the majority of students are being adequately prepared in this domain is highly questionable. The impending ecological crisis, along with many social issues, has renewed calls for a new kind of managers: “Globally responsible leaders.”

**Specification A:**

- **Name:** Globally responsible leadership
- **Description:** Business schools realize that there is a need to add value to society beyond increased profits and make the necessary changes to allow for a new generation of globally responsible leaders to develop.
- **Reason:** Embracing globally responsible leadership and corporate social responsibility will allow business schools to enrich their offering and add value to stakeholders. It presents an opportunity for integrated learning and for applying new pedagogical techniques, as globally responsible leadership requires experiential, presentational, propositional and practical ways of learning to be integrated into business school offering.
- **Probability:** 65%

**Specification B:**

- **Name:** Strictly utilitarian value added
- **Description:** Business schools fail to heed the calls for change. They continue the current trend of adding strictly utilitarian value.
- **Reason:** In this scenario business schools do not try to adapt to the changing environment. They continue with the status quo. As a result, business schools continue to serve their purpose as cash cows for universities, while the value added to students is an increase in their potential salaries after graduation. Some business schools offer ethics and sustainability courses, but those will continue to be taught in individual silos without harmonization of those values into the overall curriculum content.

- **Probability:** 35%

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## Technology

**Descriptor Name:** Blended learning

**Area of Influence:** Technology

**Current Situation:** The digital transformation significantly affects management education provider. In fact, there are several approaches for technology supported learning. One is blended learning, which entails a combination of online learning (slides, cases, seminar notes, podcasts, blogs, videos, etc.) and traditional face-to-face learning (lectures, seminars, tutorials and supervisory sessions, etc.).

### Specification A:

- **Name:** Implementation of blended learning
- **Description:** Business schools will exploit the blended learning technology, as it valuable in supporting teaching and learning objectives and is considered a key driver of learning.

- **Reason:** According to research conducted by Benson and Kolsaker (2015), instructors and learner rate the quality of blended learning twice as high as traditional learning methods. Moreover, rising cost of delivering content through traditional methods (face-to-face), high-student demand, declining resources and shortage of qualified faculty drive the usage of blended learning. In addition, it offers lower operating costs through standardized content and delivery methods. In conclusion, there is no doubt that blended learning will become more prevalent.
- **Probability:** 80%

#### **Specification B:**

- **Name:** No implementation of blended learning
- **Description:** Business schools reject implementing blended learning methods, as there is a strong belief in traditional face-to-face teaching.
- **Reason:** Classroom based interaction and face-to-face teaching works well for management education and there is little interest in new learning technologies. According to research conducted by Benson and Kolsaker (2015), 'cautious' and 'traditionalists' blended learning adapters back off from using it. Mainly due to the fact that it imposes additional stress to students and disappointment if the technology is unreliable. Ultimately, business schools view the blended learning technology as unfavorably.
- **Probability:** 20%

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**Descriptor Name:** Massive Open Online Course (MOOC)

**Area of Influence:** Technology

**Current Situation:** Technology has become a disruptive force in every sector. Similarly, education is also moving forward in terms of technological advancement. From the classroom with equipped instruments to shared cloud, online courses and joint classroom online platforms, technology has taken over the educational sector.

**Specification A:**

- **Name:** Open online course dependency
- **Description:** In the area of distance education, Massive Open Online Courses have been the most disruptive innovation in the education system. A massive open online course is an online course aimed at unlimited participation and open access in the internet. MOOCs provides interactive courses along with classroom lectures and discussions among students, professors, and teaching assistants.
- **Reason:** The cost curve can be shifted drastically because of MOOC. Moreover, it is also genuine to students who prefer not to go to classes. It has been highly quoted that MOOCs increases the educational experience. If these MOOCs are financially sustainable and well accredited, the future of MOOCs will rise drastically. OpenupEd, launched by the European Association of Distance Teaching Universities is one of the major players in MOOC Europe. Nevertheless, it has to go a long way if it wants to compete in the global market.
- **Probability:** 40%

**Specification B:**

- **Name:** Preferable classroom courses
- **Description:** Relying too much on online courses without the present of an experienced professor can create chaos and lead to wrong information. The

appropriate use and information of digital learning as well as its potential threats needs to be engraved in the students before completely depending on it.

- **Reason:** As disruptive as it may be, the MOOC has left little or no impact in the educational sector. A lot of sectors must be kept in mind before entering the world of online courses. Authors argue that a certain set of rules needs to be implemented when it comes to online courses. Similarly, digital literacy is needed to avoid the chaos created possibly by wrong or misleading knowledge which is only possible in case of presence of a professional. Although it seems comparatively easier in the beginning, the amount of time and energy can exceed in MOOC. Ultimately, classroom environments are tested to be better solutions to solving problems and creating a better learning environment.
- **Probability:** 60%

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**Descriptor Name:** Personalized learning environment (PLE)

**Area of Influence:** Technology

**Current Situation:** One of the newest developments in the e-learning field is cloud computing which has allowed the rise of the personalized learning environment. Cloud computing offers many benefits to institutions and students alike. To the institution it allows them to enter the e-learning field without a high level of technical expertise and no sizable initial investments. For students they can learn anywhere, at any time, and at their own pace. They have easy access to reusable material, and it allows them to interact with fellow students on a global scale. It also gives them access to highly customized material.

For tutors the benefits include shorter teaching times, and self-paced tutoring. This personalized learning environment, which was enabled by the rise of web 2.0 is one of the fastest growing trends in the e-learning field.

**Specification A:**

- **Name:** The rise of personalized learning
- **Description:** Business schools adopt and integrate the personalized learning environment into their programs.
- **Reason:** Capitalizing in the current growth in e-learning and taking advantage of new technologies, personalized cloud learning becomes very popular. Pushed by the need for a more contextualized and practical learning environment that develops skills lacking in current business education the business school adopts personalized cloud learning. This coincides with many benefits for institutions including cost cutting and the ability to reach a greater audience. Whether management educators like it or not, it is inevitable that business school offerings will be compared to those that are available in the corporate training world.
- **Probability:** 55%

**Specification B:**

- **Name:** Personalized learning does not maintain momentum
- **Description:** Business schools ignore the personalized learning environment and do not integrate it into their programs.
- **Reason:** Although there are many benefits associated with the adoption of cloud computing to create a personalized learning environment, there are also some drawbacks. Limitations include reduced face-to-face interaction between the teacher and students. In this scenario this is such a great barrier that the PLE fails to assert its dominance in business education and thus is not widely adopted by the business school.
- **Probability:** 45%

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## 10.3 Differences within the scenarios

### Übersicht über die Projektionen

Szenario:	S-6	S-5	S-4	S-3	S-2	S-1
Rang:	1	2	3	4	5	6
Konsistenzsumme:	134	104	104	88	68	68
Konsistenzdurchschnitt:	1,29	1,12	1,05	0,93	0,86	0,77
Wahrscheinlichkeitsmaß:	54	55	53	56	54	50
Deskriptor:						
1.1 State regulation	a	a	a	a	b	a
1.2 Competition	a	a	a	a	a	a
1.3 Internationalization	a	a	a	a	a	a
1.4 Partnerships with business comm...	a	a	a	a	a	a
2.1 Financial sustainability	a	a	a	a	a	a
2.2 Strategic positioning	a	a	a	b	b	b
2.3 Program structure	a	a	a	a	b	b
2.4 Structure of education system	b	b	b	b	a	b
3.1 Duration of study	b	b	b	b	b	b
3.2 Market image	b	a	b	a	a	a
3.3 Demand analysis	a	a	a	a	a	a
4.1 Teaching methods	a	b	b	a	b	b
4.2 Academic focus	a	a	a	a	a	a
4.3 Academic research focus	b	b	b	b	b	b
4.4 Student-teacher ratio	a	a	a	a	a	a
4.5 Purpose of the business school	a	a	a	a	b	b
5.1 Blended learning	a	a	a	a	a	a
5.2 Massive Open Online Course (MO...	a	a	a	a	a	a
5.3 Personalized learning environmen...	a	a	a	a	a	a

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