

Jan Posthumus

Use of Market Data in the Recruitment of High Potentials

Segmentation and Targeting
in Human Resources in the
Pharmaceutical Industry



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Jan Posthumus
Loerrach, Germany

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This dissertation is dedicated to my wife Saskia Zuercher Posthumus and
my daughter, Nienke Posthumus.

Und so lang du das nicht hast,
Dieses: Stirb und Werde!
Bist du nur ein trüber Gast
Auf der dunklen Erde.

—J.W. Goethe

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A successful learning experience such as this dissertation is similar to a long journey through unknown territory. New behaviors and skills are learned, and old knowledge has to be put into perspective through interactions with new information and people. The route sometimes seems unclear and difficult to navigate, and only signposts and points of replenishment allow for a successful completion.

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Jan Posthumus

Abstract

The demand for high-potential employees is expected to rise in the coming decades, and the shifting balance of supply and demand of this human resource will lead to more competition. Research has shown the potential problems organizations face in the near future regarding the recruitment of these well-educated workers. Recruitment has been identified in the literature as the most important single human resource activity. The recruitment of high potentials is, therefore, an essential facet of future business strategy. However, there is a lack of research in the field of targeted recruitment. This study used the grounded theory method to explore the implementation of segmentation and targeting in the recruitment of high potentials in the pharmaceutical industry in Europe and the United States. The implementation of these instruments can best be understood as an interaction between four categories: the identified internal need for certain groups of high potentials; the scarcity of these groups of high potentials in the market; the attitudes, opinions, and strategies within human resources; and the technological capabilities. Depending on the situation, different recruitment instruments are used to recruit high potentials. However, the interviewees did not have a homogeneous definition of high potentials nor do they use an explicit recruitment profile, though they implicitly search for the high-potential characteristics of intelligence and agility, engagement, the ability to perform in various environments, and the ability to manage one's energy levels. In addition to research aimed at creating a better understanding of the context and consequences of a more tailored approach to high-potential recruitment, future research could, for example, compare the practices used in the pharmaceutical industry with those used in other industries, thus providing new insights.

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List of Abbreviations

AMA	American Marketing Association
AMO framework	ability, motivation, opportunities framework
B2B	business to business
B2C	business to consumers
CEO	chief executive officer
CRM	customer relationship management
ELM	elaboration likelihood model
ESOMAR	European Society for Opinion and Marketing Research
FMCG	fast-moving consumer goods
GTM	grounded theory method
HR	human resources
HRM	human resource management
P-E Fit	person-environment Fit
P-O Fit	person-organization Fit
RBV	resource-based view
TRM	talent relationship management
EGT	emerging grounded theory

1 Introduction

Only companies that are flexible and have the ability to learn and adapt will survive in our ever-changing environment (Collins, 2001). This ability to learn and adapt can be potentially achieved by a company in one of three ways: (a) through the retention of the employees that have this ability, (b) through the development of these abilities in employees, and (c) through the recruitment of new employees. Although all three pathways are important and have to be aligned to deliver optimal results (Stahl et al., 2007), Ulrich and Brockbank (2005) note that recruitment should be regarded as the most important pathway, as it drives the outcomes of other measures (e.g., training and incentives) of the high-potential management system. High-potential management, also known as talent management, “is the systematic attraction, identification, development, engagement, retention and deployment of those individuals who are of particular value to an organization, either in view of their ‘high potential’ for the future or because they are fulfilling business/operation-critical roles” (CIPD, 2013b, para. 1). Taylor and Collins (2000) agree that effective recruitment is likely to be the “most critical human resource function for organizational success and survival” (p. 304).

Research of human resource practice suggests that current hiring practices are often ineffective and not systematic (Fernandez-Aráoz, Groysberg, & Nohria, 2009). Ineffective recruitment is a competitive disadvantage in organizations that are increasingly competing for high-potential employees (Dobbs et al., 2012). In addition, recruiting and recruiting methods are rapidly changing. Trost (2012) observes a transition from a rather passive role of recruitment (reacting to incoming candidate applications) toward a more active role in which recruiters search for passive candidates, thus increasing the pool of potential candidates and therefore the probability to fill an open position successfully. Passive candidates are people who are not actively searching for new opportunities but who might be willing to change to the recruiting company if approached with an appropriate offer. Increasingly, companies are applying to candidates, rather than candidates applying to companies. This is especially the case for highly qualified high-potential candidates, who can usually choose between many employers (Schamberger, 2006). In order to have access to a sufficiently large group of appropriate applicants, professional recruiters increasingly use social media to identify high-potential candidates. Web-based algorithms are also being developed to help with the identification of adequate employees (Chamorro-Premuzic, 2012). Cappelli (cited in Lohr, 2013) posits that human resources is transforming from a profession that relied mainly on known practices and gut feelings toward a profession that integrates the results of analysis of large amounts of data, labeled as workforce science and analytic recruitment (Boudreau & Jesuthasan, 2011; Roberts, 2012; Schamberger, 2006), which will guide future hiring practices (as well as other parts of human resources).

The change to a labor market in which employers have to apply to high potentials, combined with an increasingly analytic approach to recruitment, could support the use of marketing and market research instruments with which potential employees can be identified and approached. *Segmentation*, defined as the partitioning of people into groups with similar important characteristics, is a key element of market research (Smith, 2007). Segmentation in human resources is not a new phenomenon; it has existed in some form since companies began to recruit employees (Roberts, 2012). However, there has been a recent resurgence of interest in segmentation in the human resource literature, including HR recruitment literature concerned with the analysis and understanding of the differences (and different needs) of groups of employees (Boudreau & Jesuthasan, 2011; Roberts, 2012; Schamberger, 2006). Some companies now use internal employee data to gain a better understanding of the different needs and expectations of several groups of employees. This information is then used to segment their workforce and design differentiated offerings for the different groups (Cantrell & Smith, 2010). Better insights into the different needs and expectations of various segments of the workforce could also potentially benefit external recruiting (Roberts, 2012). According to Breaugh (2013), the definition of the target population within the recruitment setting is “the most important question an organization needs to address” (p. 411). Ryan and Delaney (2010) assert that a more targeted talent pool could lead to significant long-term cost savings for an organization. Hence, understanding the underlying factors that contribute to effective recruitment of high potentials is vital.

1.1 Justification for the Study

In the last decade, organizational recruiting efforts gained prominence in daily human resource practice. For example, in a 2011 survey of U.S. public organizations, human resource management professionals revealed that, on average, 32% of human resource managers’ time is spent on recruitment and staffing activities (IPMA-HR, 2011). According to the Global Selection Forecast 2012 (Boatman & Erker, 2012), 86% of the global staffing directors surveyed rated bringing in new talent as their top priority, whereas a global study by Mitchell, Ray, van Ark, Burnett Vachon, & Cowan (2012) reveals human capital to be a top priority for CEOs, second only to innovation.

However, although recruitment and staffing activities take up a significant part of the human resource professionals’ time (e.g., Fernandez-Aráoz et al., 2009; Stahl et al., 2007) the literature offers very little evidence for best-practice strategies and underlines the need for theoretical and methodological development (Collins & Kehoe, 2009; Orlitzky, 2007). The literature on targeted recruitment is especially lacking (Breaugh, 2013). Several authors (Breaugh, 2013; Roberson, Collins, & Oleg, 2005) have argued that the first phase of recruitment is particularly important, as it is in this phase that applicants are attracted to an organization and potential applicants are generated.

Although the global crisis of 2007 and 2008 may have slightly—and temporarily—reversed the importance of external and internal recruitment, it seems that with the improved global economy, external recruitment of key people has again become more difficult. A 2009 report from the Society for Human Resource Management Foundation found that recruiting and attracting talented employees continues to be a critical component for organizational success. A global survey by Manpower Group (2011) found that many business leaders are unable to fill critical skilled staff roles due to lack of qualified candidates. In October 2010 in Germany, there were almost 70,000 open engineering positions, and the Swiss consultancy and forecasting agency Prognos projects a shortage for 2020 of about 395,000 engineers, increasing to 600,000 open positions in 2030 in Germany alone (Salmen, 2012).

Further theoretical and methodological development seems especially important because the scope of potential flaws without accurate targeting in recruitment is broad.

- A large group of unqualified applicants makes the recruitment and selection process less efficient and effective.
- It potentially produces a mismatch between supply and demand, resulting in an under- or oversupply of high potentials, high potential turnover, and restructuring. Anderson and Schackleton (as cited in Weuster, 2012) report that more than 50% of United Kingdom college graduates changed jobs more than two times within three years after graduation. Potential adequate employees may also not be identified and not enter the pool of potential employees.
- Ineffective recruitment procedures can lead to a “mismatching”—a situation in which a person is hired even though he or she is not a good fit for the job. The cost of these mismatches can be significant and increases normally with the importance of the position in the company (Weuster, 2012). In the case of high potentials, “who have particularly rare and sought-after skills, which gives them the capacity to make a real difference” (Taylor, 2010, p. 441) missing potential adequate candidates can be costly.

As the importance of employees becomes a key parameter for competitive advantage, an increase in potential mismatches may even have catastrophic consequences for the success and survival of a company (Collins & Kehoe, 2009). The cost of these mismatches include direct costs, such as recruitment costs to fill the open position and severance packages, as well as indirect costs like lower productivity. It may also result in a situation in which higher-than-necessary investments in the development of high potentials have to be made to achieve company needs. An inability to recruit adequate people with potential for growth may also create a shortfall of sufficient talent for senior leadership functions (Caye, Dyer, Strack, Leicht, & Minto, 2008), creating a situation that is “exasperated by the emergence of boundaryless careers” (Collings & Mellahi, 2009, p. 307). Rapid growth in emerging countries such as China, Russia, and India and an increasingly global market will intensify the competition for international leaders and force multinational companies to develop new

strategies for identification, attraction, and retention of international high potentials (Collings, McDonnell, Gunnigle, & Lavelle, 2010; Scullion, Collings, & Caligiuri, 2010).

This situation is especially critical for the pharmaceutical industry, which not only faces multiple challenges (Buxton, 2010), but also has a relatively weak leadership pipeline (Garavan, 2012). In the academic literature, the critical importance of recruitment of high potentials in the pharmaceutical industry is highlighted (Collins & Kehoe, 2009). The global market for pharmaceutical products was recently valued at \$837 billion and is growing at a rate of 5% to 8% annually (IMS Health, 2010). The pharmaceutical market consists of four major segments.

- Originator drugs include chemically synthesized drugs and biologicals (drugs derived from living material). Both rely on patents to protect a company's investment. The time from discovery to market can take up to 12 years, and cost estimates vary from \$500 million to \$2 billion (PhMRA, 2010)
- Generic drugs are copies of chemically synthesized drugs. A related group is biosimilars, which are versions of biological originator products.
- Over-the-counter drugs (OTC) are drugs that can be obtained in pharmacies, convenience shops, and supermarkets without a prescription from a medical professional.
- Active pharmaceutical ingredients (API) are the substances that cause the effect of a medication, and excipients give a medication form and serve as delivery vehicles.

The molecular-biological revolution after World War II formed the development of the contemporary pharmaceutical industry. The evolving knowledge base allowed a transformation from a coincidental discovery of therapy concepts toward a more rational development of pharmaceutical concepts (Vaterlaus et al., 2007). In the last two decades, the focus of most large pharmaceutical companies was on blockbuster drugs with high investment in research and development (R&D) and sales. A drug is regarded a *blockbuster drug* in the industry if it generates at least \$1 billion in annual sales (Gilbert, Henske, & Singh, 2003). This period is characterized by a concentration of sales and market share in the industry resulting in a relatively small group of large companies dominating the industry.

During this time period, these main players in the industry have centered on business in developed countries. Industry marketing has primarily been to Europe, Japan, and the United States, which together comprise about 88% of global sales (AstraZeneca, 2004). These companies also focused on a few products with a high level of sales in selected widespread diseases. However, with these products losing market exclusivity and a pipeline that can't make up for the accompanying loss of sales, the focal point has shifted. The pharmaceutical industry is currently going through restructuring and cost-control phases (Hunt, Manson, & Morgan, 2011), increasing government regulations and shifting geographic focus from developed countries, primarily in the Western hemisphere, to emerging countries such as

China (Buxton, 2010). In order to increase R&D productivity and adapt to the changing environment, the industry will be dependent on its employees.

Beckstead and Gellatly (2004) posit that the pharmaceutical industry can be classified as a science-based industry within the group of high-knowledge industries with a high investment in R&D as well as in skilled workers. Like the computer industry, the pharmaceutical industry is most dependent on intangible assets, such as the intellectual capital within its human resources. The high importance of intangible assets in the pharmaceutical industry is expressed in its high market-to-book financial ratio (DiTommaso, Paci, & Schweitzer, 2005). The availability of scientific and leadership talent is especially crucial in this industry. A sufficient large pool of scientific talent is important for innovation, and effective leadership is vital since the long cycles of development of new compounds can sometimes make it difficult to link accountability and action (Gilbert et al., 2003). For these critical functions, external people are not always available or too expensive to recruit. Integration of knowledge and skills from other companies through outsourcing may be an alternative in certain situations, but it is contingent on the fit between strategy and environmental factors (Murray, Kotabe, & Westjohn, 2009). Therefore, identifying and targeting those individuals—namely, high potentials—who have the potential to deliver a high value to the company at a future time may be a rewarding strategy.

The value of these high potentials to the company is linked not only to their abilities, but also to their motivation (Tamkin, 2005). In addition to the required skills needed for an open position, the potential employee fit with the culture of the organization is an important factor. The person-organization (P-O) fit influences job satisfaction and employee turnover and, possibly, task performance (Schneider, 2007).

This aligns with Holland's (1985) theory of fit between jobs and people, which states that people are not only happier, but also more successful, when their work environment matches their personality and needs. The P-O fit literature associates the personality, values, and goals of a potential employee with that of the potential employer (Sutarjo, 2011). It emphasizes the importance of a match between a person's goals, values, and personality with the values, norms, and overall culture of a company (e.g., Cable, Aiman-Smith, Mulvey, & Edwards, 2000; van Vianen, De Pater & van Dijk, 2007), whereas the fit can also be complementary. Companies such as Marriott (service industry) hire with a strong focus on fit between the potential employees' values and attitudes and the corporate culture (Cheese, Thomas, & Craig, 2008). Contemporary P-O fit literature argues not only that the better an individual fits into an organization, the higher the organizational commitment (Kristof-Brown, Zimmerman, & Johnson, 2005), but also that the perceived fit between an organization and a potential employee drives the attraction between the organization and potential employee (Sutarjo, 2011).

Recently these values, motives, and needs, as well as methods for addressing the needs of different people, have increasingly become a topic of academic research (Roberts, 2012). Ryan and Delaney (2010) observe that “technology allows for much greater capability for differences in what applicants are provided, and thus there is renewed interest in individual differences” (p. 134). Schamberger (2006) conducted research on the importance of identification of the goals and needs of these high-potential employees and the ability of a company to use this knowledge to increase the success of recruitment processes, and Petkovic (2008) found similarities between how needs can potentially be addressed in the marketing of services and marketing within human resources.

1.2 Problem Statement

The recruiting process of high potentials can therefore also be described as a marketing process. Marketing is often associated with the promotion of products (Barnetson, 1997) whereas Kotler (1972) originally defined *marketing* more broadly as a “task of creating and offering value to others for the purposes of achieving a desired response” (p. 46). Some researchers regard human resource marketing as being similar or exchangeable to that of product promotion. Maurer and Liu (2007) state that “recruitment is essentially the task of marketing jobs in a labor market of competing job opportunities” (p. 306). Cappelli (2008) adds that the hiring process has become nearly indistinguishable from the marketing process. Others (e.g., Salmen, 2012; Trost, 2012) consider recruitment as one of the elements within human resource marketing, like employer branding. The interest for marketing in the recruitment setting might reflect a shift from a buyers’ market toward a sellers’ market, in which companies have to compete for high-potential employees. Inclusion of marketing concepts in the human resource recruitment setting became en vogue when companies began to realize that potential employees may have multiple companies from which to choose.

In theory, using the marketing concepts of segmentation and targeting should allow for a better identification of a target population or populations (Kotler, 2010). Yankelovich & Meer (2006) posit that through segmentation, companies can identify groups worth pursuing. While market research, segmentation, and targeting—as well as positioning (the companies’ value proposition)—have been discussed extensively in contemporary non-HR marketing literature, (e.g., Agarwa, Malhotra, & Bolton, 2010; Cleveland, Papadopoulos, & Laroche, 2011; Coelho & Henseler 2009; Kotler, 1989), the focus is almost solely on positioning (communication of the brand) in the HR marketing literature. The current literature focuses less on the information side (market research, segmentation, and targeting) of human resource marketing than on the operational communication side (positioning and operational communication of the brand). For example, a German Society for Human Resources publication (DGFP, 2006) emphasizes the relevance of marketing, but is thin on the knowledge side of marketing. Felser (2010) and Hagen (2011) provide other examples of human resource marketing, but only

briefly touch upon the issue of acquiring knowledge of the market and market structure before designing and implementing a marketing strategy.

In cases where this knowledge side of the human resource marketing process is described, the focus is on segmentation of current employees (Boudreau & Jesuthasan, 2011; Cantrell & Smith, 2010) or on the implementation of talent relationship management systems (TRM) (Trost, 2012).

According to Pfeffer (2007), competent employees are the most important differentiator of a company. For companies that increasingly compete for high potentials, current recruitment methods may become less effective and efficient. Therefore, the identification of appropriate future high-potential employees through the implementation of segmentation and targeting instruments could have a significant impact on these organizations.

1.3 Purpose Statement

The purpose of this study is to explore and assess the use of segmentation and targeting to recruit high potentials in the pharmaceutical industry in Europe and the United States. It will determine the underlying reasoning for current human resource recruitment practices and build a model to aid human resource professionals in assessing under which circumstances segmentation and target marketing can add value to the recruitment process. Recent research (Stahl et al., 2007) offers some insight into current marketing practices in recruiting and emphasizes the importance of viewing potential recruits as customers. Although the concept of marketing in the recruitment of human resources has been described in the literature as early as 1962 (e.g., Schubart, 1962), little is known about when human resources professionals use marketing instruments such as segmentation and targeting in the recruitment process. Ployhart, Schneider, and Schmitt (2006) call for further research to understand the opportunities offered by tailoring approaches to attract high potentials.

This study aims to extend the knowledge on the current use of marketing instruments in recruitment and future sourcing practices. Taylor and Collins (2000) identify recruitment as the most critical activity in HR, whereas Fernandez-Ar  oz et al. (2009) and Stahl et al. (2007) note that literature currently offers very little evidence on recruitment practices. However, according to Long (2012), HR professionals use previously conducted research to guide their practice. Studying current recruitment practices and building a model that informs recruiters on when to use marketing instruments such as segmentation and targeting will therefore add to the current knowledge base on recruitment, and especially high-potential recruitment, in HR. The use of the grounded theory method (GTM) for this study allows for an understanding of the situation being studied and the building of theories from the interviewees' stories. The GTM approach will assure that the findings are practical and relevant. This study will also expand the knowledge of the application possibilities of GTM beyond the health care sector, as its use in recruitment has been limited. Ulrich and Brockbank (2005) recommend that a

company's HR strategy should be contingent on its business strategy. This study's use of the contingency framework allows for examination of the context in which recruitment methods are used and the determination of recommendations for appropriate use of marketing instruments dependent on a company's situation.

1.4 Theoretical Framework

This dissertation draws on contingency theory as its theoretical underpinning. Contingency theory has been used in segmentation and targeting studies in other sectors (Cui & Choudhury, 2003; Kleiner, 2008). It offers a scientific framework for research (Kleiner, 2008). Contingency theory offers a valuable perspective in the recruitment process, as Stahl et al. found in their 2007 study of talent management that "practices are 'best' only in a given context" (p. 30). Dineen and Soltis (2011) observe that "the potential is great for interplay between contextual considerations and targeting strategies" (p. 50).

Contingency theory originates from psychology and attempts to explain the choice for certain organizational parameters from contextual factors (Kleiner, 2008). Contingency theory contradicts classical management thinking that there is a single effective form of organizational structure for all organizations (Bacher, 2006). In the literature, two main approaches are discussed: analytical and pragmatic. In the analytic approach, the context variables are independent, while the organizational structural variables are dependent upon them (Kleiner, 2008). The most important contingency theory concepts are task uncertainty, innovation, and size (Donaldson, 1996). The pragmatic approach regards the context as a restriction for the pursuit of the management objectives. In this approach, the strategy is considered in addition to the context. A fit between a contingency factor and structural variables linked to high performance is postulated by all contingency theorists. The demonstration of a positive effect of the theoretical fit between the contingency and the performance is an important feature of contingency theory research (Bacher, 2006). Contingency theory (Pleshko & Heiens, 2011) also posits that organizational survival and effectiveness can be achieved in several ways and is dependent on the situational context. In a similar way, this dissertation aims to assess the influence of different external and internal context variables on the use of segmentation and targeting in the recruitment process in the pharmaceutical industry.

1.5 Research Questions

In this dissertation, the following research questions are addressed:

1. When and by whom are segmentation and targeting used in the recruitment of high potentials in the pharmaceutical industry in Europe and the United States?
2. Why are these concepts used or not used in the pharmaceutical industry?

3. If these concepts are used in the pharmaceutical industry, which attributes of high potentials are deemed important and which segmentation bases and methods are used?
4. What other concepts and instruments are currently used in the pharmaceutical industry and why?

The answers to these questions will be used to create a recruitment model that supports human resource professionals in the pharmaceutical industry in determining whether or not segmentation and targeting are feasible concepts for their situations.

1.6 Significance of the Study

The McKinsey Institute's report on global workforce trends (Dobbs et al., 2012) states that "businesses operating in the skills-scarce world will need to take a stronger role in shaping strategies that will improve their ability to compete in the global war for talent" (p. 57). Dobbs and his colleagues estimated that the demand for college-educated workers will rise from 24 percent in 2011 to 36 percent in 2020 (as a percentage of total jobs). This increase will result in an estimated 11 percent gap between demand and supply of college-educated workers in 2020. Therefore, access to high potentials will become more challenging and important for companies in high-knowledge industries. As demand is greater than supply, competition for the high potentials can be expected to become a major issue, especially in advanced economies like Western Europe and Japan, where aging populations makes a sufficient supply of (younger) high potentials more challenging (Dobbs et al., 2012; Kotzur, 2007). This situation has created difficulties in emerging markets as well. A 2009 Harvard Business School survey (Fernandez-Ar aoz et al., 2009) found that some companies in emerging markets had difficulty finding sufficient talent even during the financial downturn of 2007 and 2008. As high-potential recruitment becomes more challenging, the attitude within human resource departments has to shift from a rather passive role model in which potential employees seek contact with a company toward to a more proactive role in which the company actively contacts potential candidates (Trost, 2012).

An alternative approach would be to recruit senior managers from competitors when vacancies occur. Research (e.g., Hatch & Dyer, 2004) has shown, however, that the recruitment of senior management from competition provides inferior results to the recruitment and internal development of high potentials.

The rise of social media and professional networks, coupled with evolving algorithms for consolidating the abundance of information from these networks about potential employees in the last decade, offer opportunities for identifying and profiling potential employee groups that was impossible until recently. Professional segmenting and targeting of high potential employees may help avoid existing supply and demand problems and allow for improved access to the right high potentials.

Further, in an increasingly competitive environment, it is important for organizations to use resources effectively and efficiently. The systematic implementation of the segmentation and targeting concepts can potentially increase the effectiveness and efficiency of the recruitment of these high potentials as well as the overall performance of a company. The findings of this dissertation may assist HR professionals in evaluating the need for and potential benefit of segmentation and targeting in their recruitment process of high potentials. The recruitment model will give the human resource professional a practical framework that facilitates the above-mentioned evaluation process. Dineen and Soltis (2011) found that research is lacking in the field of targeted recruitment as well as in the contextual factors that influence these targeting decisions. According to Collins and Kehoe (2009), there is a high need to increase our understanding of how configurations of recruitment and selection practices potentially influence firm performance and company-level employee outcomes. They emphasize the need for additional recruitment and selection practices.

1.7 Research Methods

This dissertation uses qualitative methods to explore and assess the use of marketing instruments in recruitment in the pharmaceutical industry. Qualitative design suits the targeted outcome of understanding ways in which segmentation and targeting concepts are used to recruit high potentials in the pharmaceutical industry. Qualitative research aims to understand the underlying concepts and attitudes on a particular topic (Smith, 2007) and has been used in a wide variety of disciplines, ranging from education research, literary studies, sociology, medicine, and communication (Denzin & Lincoln, 2005). According to Corbin and Strauss (2008), qualitative research “allows researchers to get at the inner experience of participants, to determine how meanings are formed through and in culture, and to discover rather than test variables” (p. 12).

The grounded theory method (GTM) was chosen for this study, as it explicitly endeavors to build insight from the data gathered and develop theory (Corbin & Strauss, 2008). It is one of the five main categories of qualitative research (Creswell, 2013). A key element of GTM is the alignment between theories and context. Bryant and Charmaz (2007) posit that theories should be “grounded” in data, elaborate useful and applicable analytical explanations and is practice oriented. The process of grounded theory is outlined in five steps: (a) initiation of research, (b) data selection, (c) initiation of and ongoing data collection, (d) data analysis, and (e) conclusion of the research. The uniqueness of GTM lies in the interplay of data collection and analysis (Egan, 2002). In GTM, data are collected from various sources (e.g., documentary resources, interviews) and are not defined in advance, but, instead, are dependent on the data analysis. According to Bryant and Charmaz, 2007, “beyond the decisions concerning initial collection of data, further collection cannot be planned in advance of the emerging theory” (p. 278). Data analysis within GTM uses the constant comparative

method to generate and analyze data. In this method, data are encoded and categorized, and emerging theory is delineated and written (Corbin & Strauss, 2008).

The choice of the method was influenced by the belief that humans act on the basis of meaning and that an interpretative process is needed to develop meaning and the thoughts of pragmatists such as Dewey, who asserts that “what is discovered about reality cannot be divorced from the operative perspective of the knower” (Corbin & Strauss, 2008, p. 4). Another element that influenced the choice for the grounded theory method was the objective to develop insights that guide practice. My original training as a nurse influenced the choice of this methodology. Corbin and Strauss posit that GTM tends to be focused on practical ideas, and nursing is a profession guided by a body of knowledge, with a strong focus of applying knowledge in practice. GTM has also been applied widely in research in the health care sector (Morse, Stern, & Corbin, 2008). My background in market research influenced the choice of the topic for this study; although recruitment of high potentials has become an important topic among the HR professionals in the companies for which I have worked, none of these professionals was aware of any research regarding identification and sourcing of these high potentials. However, there was a noticeable difference between marketing, with its focus on market knowledge, and recruitment, with its focus on one-to-one relationships.

A semi-structured interview guide was used to collect data on the implementation of marketing instruments such as segmentation and targeting to recruit high potentials in the pharmaceutical industry. Research (McNamara, 2009) suggests this approach allows for similar general areas of information to be covered in all interviews while keeping a degree of freedom that facilitates retrieving information from the discussion partners. Contrary to closed interviews, follow-up questions can be asked based on the respondents’ responses to previous pre-constructed questions (Turner, 2010). This method allows the interview to be more focused than an informal conversational interview (McNamara, 2009). Questions are also more consistent, making coding easier (Creswell, 2013). The semi-structured interview guide was used in both face-to-face and telephone interviews. Coderre, Mathieu, and St-Laurent (2004) found that telephone interviewing yields results as valid as face-to-face interviews, and Opdenakker (2006) posits that “both can be equally used for conducting interviews in research” (p. 12).

1.8 Sample and Population

This research uses nonprobability sampling, which is a mix of convenience and purposive sampling (Morse, 2006; Richards & Morse, 2007). Morse (2006) argues that nonprobability sampling is appropriate for qualitative research as some group members may be more knowledgeable because of their experience, status, or roles. Convenience sampling is a good starting point for the researcher to obtain an overview of the project (Richards & Morse, 2007), although it does not represent the total population. As the sample is not representative,

there are limitations regarding the ability to make generalizations of the total population, which results in a low external validity for the research (Castillo, 2009). Based on the first interviews, additional respondents who would be expected to have information on specific topics that emerged through these first interviews will be purposely sought. As with convenience sampling, purposive sampling results cannot be used to generalize the results for the whole population (Castillo, 2009), though purposive sampling leads to a “greater depth of information from a smaller number of carefully collected cases” compared to the use of probability sampling techniques (Teddlie & Yu, 2007, p. 83).

According to Marshall (1996), the sample size can vary in qualitative research, varying from single figures up to large samples. Glaser (1978) argues that in the framework of theoretical sampling—a key principle within grounded theory—the sample size cannot be defined in advance. The research question and data therefore drive the sample size. Most authors (e.g., Marshall, 1996; Sandelowski, 1995) assert that the optimal sample size is reached when additional respondents do not add additional information (theoretical sampling). In a review of PhD theses in the United Kingdom, Mason (2010), using the GTM, found a median of 30 interviews (with a standard deviation of 17), which is in between the range of 20 to 30 proposed by Creswell (2013) and the 30 to 50 proposed by Morse (2000). In a study by Baker and Edwards (2012) on the topic of the appropriate number of interviews in qualitative research, 15 interviews with experts in the field of qualitative research were planned as they expected this number to be enough to reach data saturation. A review by Thomson (2011) of 100 studies in various disciplines found an average of 25 respondents with a range of 5 to 114 participants. Thomson found that a broad research question, single interviews with every participant, and lack of expertise in the research area were associated with higher sample numbers. Morse (2000) asserts that “there is an inverse relationship between the amount of usable data obtained from each participant and the number of participants” (p. 4).

Qualitative interviews were conducted with recruitment professionals from the pharmaceutical industry in Europe and the United States. Differences in human resource practices between industries have been identified (Datta, Guthrie, & White, 2005). This industry was selected for three reasons.

- Beckstead and Gellatly (2004) found the pharmaceutical industry to be 100% knowledge driven (science-based), which seems to be a strong indicator that high potentials do matter in this industry.
- Lacetera, Cockburn, and Henderson (2004) found a correlation in the pharmaceutical industry between the hiring of highly talented scientists and the ability to build new capabilities and indicated that the acquisition of talent positively influences organizational outcomes.
- The pharmaceutical industry needs considerable human capital in R&D and in other fields (Bramhandkar, Erickson, & Applebee, 2008).

Collins and Kehoe (2009) assert that knowledge-based industries such as the pharmaceutical industries are in a constant and fierce fight with their competitors for the brightest future employees. The geographical scope of this dissertation has been limited to Europe and the United States because talent management is influenced by country-specific variables (Carr & Pudelko, 2006; Warner, 2002). For example, Asia has a very unique dynamic business environment; the fast-growing manufacturing sector has created a temporary situation of crowding out other industries in terms of talent recruitment (Stahl & Zheng, 2002), and higher employee turnover rates have been reported (Zhu, Warner, & Rowley, 2007) that may be explained by difference in cultural and social networks (Zheng, 2009).

The first three interviews comprised a convenience sample from the pharmaceutical industry in Switzerland. In these first three interviews, the interview guide was tested and complemented. The other pharmaceutical recruiters and headhunters interviewed were initially selected from a LinkedIn database of corporate recruiters. This group includes approximately 93,000 global professionals from diverse industries. Additional experts were recruited through referrals from corporate and professional recruiters.

Corbin and Strauss (2008) describe experience as an important factor for a certain level of “sensitivity” in the researcher. Prior knowledge and experience enables a researcher to react to data and understand themes more quickly. According to Corbin and Strauss, sensitivity also helps lower the probability of a researcher forcing ideas on the data because it makes the researcher more aware of one’s beliefs and assumptions in the interpretation of the data. The focused research questions and methods (in-depth interviews, with the possibility of contacting the participants again to clarify questions) are factors found by Thomson (2011) to be associated with a smaller sample size; a sample size between 15 and 20 participants was anticipated at the beginning of the study.

1.9 Definition of Key Terms

In this study, *marketing* is defined as “the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large” (Wilkie & Moore, 2012, p. 73).

In this study, *segmentation* is defined as “the identification of target customer groups where customers with similar requirements (expectations) and buying characteristics are aggregated” (Kara & Kaynak, 1997, p. 873). Where *market segmentation* can be regarded as a partitioning process in which the observer views the market as existing of various more-or-less homogeneous sub-markets, *targeting* is the prioritization process in which it is decided which sub-market/segment will be worked on (Kotler, 1989).

In this study, *corporate recruiters* are defined as “specialized talent procurement professionals within the HR department that focus on building, grooming, and retaining the executive bench” (Recruiter.com, 2013). A *professional executive recruiter* (also referred to

as a *headhunter*) is a person who receives a fee for their services as a recruiter (Finlay & Coverdill, 2007).

In this study, *high potentials* are defined as potential or current employees “who have particularly rare and sought-after skills, which gives them the capacity to make a real difference” (Taylor, 2010, p. 441). For the purpose of this dissertation, *high potentials* and *talents* are considered to be synonyms (Kienbaum Management Consultants, 2001; Morton, 2005).

1.10 Limitations of the Study

There are four limitations to this study. First, many respondents were recruited from a database of corporate recruiters and headhunters. The LinkedIn group for corporate recruitment was initially used to identify potential respondents from the pharmaceutical industry from the total population. Drawing the sample from a specific group creates the potential of influence from certain variables that are unique to that group and therefore limits generalization. The narrow focus of the study allows though for an in-depth exploration of the targeted population and the development of a theoretical model that is potentially useful for the recruitment praxis within the pharmaceutical industry. Second, the use of the telephone interview method may have altered the response compared to the face-to-face interviews, as suggested by older research (Oakes, 1954; Siemiatycki, 1979), though more recent publications suggest that it can be expected that both methods yield similar results (Coderre et al., 2006). Third, the scope of the research was limited to HR professionals with recruitment experience. Fourth, the geographical focus of the research on Europe and the United States limits the results to these regions.

1.11 Summary

The most important differentiators and main assets of a company are competent employees (Collins, 2001; Pfeffer, 2007), but recruiting high potential employees is nearly impossible (Peters & Waterman, 1982). It is not only necessary to have the correct number of high potentials at the right time, but it is also necessary to identify those high potentials with attitudes that fit the objectives of the company (Tamkin, 2005). Therefore, it is important to understand the needs and drivers of behavior of these high potentials.

It is vital that companies and organizations develop strategies to identify and attract high-potential employees. Based on demographic development (United Nations, 2013) and workforce preferences (Stahl et al., 2007), the recruitment of high potentials will become increasingly difficult from the company perspective. The workforce will become far more diverse, with greater ethnic diversity, more women, higher levels of immigrants, and a broader age range (Gallagher & O’Leary, 2007). The absolute volume of the pool of appropriate

young applicants is decreasing, and as the demand for high potentials rises (Stahl et al., 2007), the relative share available for each company decreases.

The value of the most appropriate high potentials has been clearly recognized by several researchers (Boatman & Erker, 2012; Graham & Kuhar, 2010). In the last few decades, a stream of literature has evolved around recruitment practices (Stahl et al., 2007), but there is a paucity of literature on best practices (Orlitzky, 2007) and targeted recruitment of high potentials (Breagh, 2009). The main focus is on management and retention of the available in-house talent. Internal recruitment can fill some gaps but may be insufficient to fulfill the major skill needs for a company (Cappelli, 1999).

A sufficient pool of appropriate applicants could be achieved by increasing the number of incoming high potentials. However, high potentials are a rare commodity and increasing the number of applicants may be difficult and financially costly. Therefore, it may be a more rewarding strategy to identify and target those individuals who may have the potential to deliver a high value to the company. An example of another field in which there is a scarcity of potential high-potential applicants is in the recruitment of medical doctors in rural Australia (Hemphill & Kulik, 2011). In the last decade, the emergence of social networks such as LinkedIn, Facebook, and Xing and other online databases and networks have offered new opportunities. Williamson and Cable (2003) found that “network ties provide social actors with informational advantages that can be used to reduce evaluative uncertainty” (p. 355), and Santora (2003) posits that the availability of networks through alliances and professional association memberships might have a strong impact on the hiring practices of senior executives. Sabatier (2010) found that networks are the most efficient recruitment channel compared to other channels like advertisements. However, the appropriateness of a recruitment channel may depend on external as well as endogenous factors, such as the vacancy or the access of an employer to a certain channel (Sabatier, 2010). Online databases, online tracking systems, and algorithms for consolidating information from these networks in combination with other sources of information potentially offer new opportunities for external targeted recruitment. Recently, the use of analytic tools in recruitment, which are able to handle large amounts of data in a short period of time, has been labelled “algorithmic hiring” (Lohr, 2013).

This study seeks to contribute to the human resource management literature by investigating and analyzing the effects of implementing marketing concepts like segmenting and targeting in the recruiting of high potentials in the pharmaceutical industry. It also seeks to create a theoretical model for human resource professionals to use to assess those situations where their company could profit from an improved segmentation and targeting process for recruiting high-potential employees.

2 Review of the Literature

With the introduction of marketing in the second half of the last century, the focus of companies shifted from a product-centered orientation toward a market orientation (Leefflang, 2011). According to Kotler and Armstrong (2010), successful contemporary companies are preoccupied with “understanding and satisfying the needs of their customers in well-defined markets” (p. 28). Similarly, the focus of high-potential recruitment has started to shift from a vacancy-oriented approach toward a talent-oriented approach (Trost, 2012). According to Boudreau and Ramstad (2005), talent segmentation therefore becomes as vital to an organization as customer segmentation is in marketing of products and services.

This literature review of the use of marketing instruments in the recruitment of high potentials in the pharmaceutical industry covers the contemporary literature of the pharmaceutical industry and the emergence of strategic human resource management with a focus on the management of high potentials. The review continues with marketing literature (including segmentation and targeting), the development of this research stream, and marketing literature in the context of human resources. The three elements of human resource marketing (Trost, 2012)—recruitment, targeting, and segmentation—as well as employer branding are discussed, followed by a discussion of the literature on the implementation of segmentation and targeting in the recruitment of high potentials. The last section of this literature review covers the literature on contingency theory.

2.1 Pharmaceutical Industry

One industry that needs a proactive human resource function that actively drives change is the pharmaceutical industry. This industry faces a rapidly changing and deteriorating environment (Buxton, 2010; Garavan, 2012). In the last few decades, the major players in this industry were used to double-digit growth, but they now face several challenges (Gilbert, Henske, & Singh, 2003). The pharmaceutical industry has been slow to respond to industry challenges as long development cycles tend to hide costs and divorce accountability from action (Gilbert, Henske & Singh, 2003). Pharmaceutical companies are also relatively late adopters of human resource activities like global talent management programs. Historically, they have hired from within, which limited their exposure to outside challenges (Buxton, 2010).

Recent literature (e.g., Garavan, 2012; Hunt et al., 2011) has focused on several trends currently transforming the industry.

- Recent or soon-to-be patent loss of several blockbuster products, in combination with low R&D productivity, have left major industry players with low growth or stagnation compared to the high sales and profit growths of the last decades (Gilbert, Henske & Singh, 2003; KPMG, 2011).
- As compounds lose patent protection in major large primary care indications (e.g., lipid

lowering and hypertension), this environment becomes less attractive for investment because of the availability of generics (Gilbert et al., 2003). Thus, companies are increasingly forced to focus on cost reduction and organization restructuring (Hunt et al., 2011).

- Increasing pressures from government and regulatory agencies have forced companies to reevaluate their product pipelines in terms of value delivered (Hunt et al., 2011) and indications for future development.
- The pharmaceutical market is becoming increasingly global, with a strong focus on China and other emerging countries (Garavan, 2012).
- Despite large mergers among big pharmaceutical companies, the industry has become more fragmented with highly specialized companies (e.g., focused solely on generics) entering the market (Hunt et al., 2011).
- Competition is intensifying, and the time to earn back investments is becoming shorter. Patent protection is an issue in certain regions, as is the time a drug is unique in its first indication. In the 1970s, only 23% of first-in-class products faced a follow-up product that was at least in Phase II of the development process, but by the end of the last millennium, 90% of first-in-class products faced this issue (Stirling, 2011). This transformation of the industry will continue in the coming decades. The patent loss of large drugs in the primary care setting in the Western hemisphere will be partly offset by growth in emerging countries such as Brazil, China, and India as well as the growth of generics (Buxton, 2010), changing the geographical spread and focus of the industry.

Another focus of the pharmaceutical literature is the transformation of attitude that is currently taking place. The 2005 USA Today/Kaiser Family Foundation/Harvard School of Public Health Care Costs Survey found that society held a rather low level of trust in the pharmaceutical industry. This industry reputation issue is reflected in the strong increase in legal settlements for violations of laws since 2003, such as the promotion of drugs outside its licensed disease area (Stirling, 2011). In order to regain trust, the pharmaceutical industry must comply with promotion and development rules and regulations and work closely with government agencies (Raidolska, Scott, & Oliver, 2005). Good relations with government agencies are crucial, as government agencies control access and, to a large extent, the prices pharmaceutical companies can charge for their innovations (Davidson & Greblov, 2005). Given the pressures in the industry to simultaneously improve productivity, efficiency, and innovation, clear processes and responsibilities and compliance with internal and external rules (e.g., regulatory, good clinical practice [GCP], good manufacturing practice [GMP]) are deemed important. Shohet (2013) has therefore identified three factors—in addition to Peters and Waterman's factors (1982) from the McKinsey 7-S framework (structure, strategy, system, skills, staff, style, and shared values)—that are especially relevant in today's pharmaceutical industry: governance, business compliance, and talent management.

These necessary strategic changes in the pharmaceutical industry require pools of talented people with skillsets that enable them to work in joint ventures; create strategic alliances; manage cross-border communication; and work across different cultures, divisions, and affiliates (Shohet, 2013; Steiner et al., 2007), though pharmaceutical companies currently lack strong leadership pipelines (Garavan, 2012). Several studies (e.g., Deng, Lev, & Narin, 1997; Rigby, Gruver, & James, 2009) have emphasized the importance of talent in the pharmaceutical sector. Scientific talent is vital for the innovative potential of a pharmaceutical company (Deng et al., 1997), and innovative talent is considered especially valuable in turbulent times (Rigby et al., 2009).

2.2 Human Resource Management

Studies with a strategic focus on the management of high potentials have only emerged in recent decades as contemporary human resource management (HRM) developed into a new profession (Silzer & Dowell, 2010). HRM has changed significantly in these last decades, evolving from an operational field to one with a strategic focus (Millmore, 2003) and from a passive service provider to an active partner within the company (Becker, 2007)). The literature on contemporary human resource management emerged in the 1970s, with employees becoming a critical element in the effective management of a company (Wright, Dunford & Snell, 2005). The view shifted from an earlier one that viewed employees as an expense to the perception that employees are a potential resource to be managed. This view is in line with the recognition that modern companies are increasingly dependent on their employees for their competitive advantage (Ulrich, Brockbank, Johnson, Sandholtz, & Younger, 2008).

Contrary to a strong economic focus in earlier decades, the HR field became part of management and behavioral sciences, which contributed to a shift toward a more organizational and psychological orientation. The new model became known by labels such as “high-commitment workplace” and “high-performance work system” (Kaufman, 2007). HRM was now clearly differentiated from the classical “personnel” management, which was reflected in the mainstream management literature (e.g., Peters & Waterman, 1982; Pfeffer, 1994). Torrington, Hall, and Taylor (2008) describe six themes in the history of human resource management. The first period or theme is described as *social justice*, in which a few enlightened employers promoted a welfare approach by ameliorating the working conditions, which followed by a period of *humane bureaucracy*, which emphasized an incentive-based approach to managing people that was aimed at achieving efficiency and high morale at work. In the 1960s, a theme, called *negotiated consent* by Torrington et al. (2008), evolved in which workers were managed by representation and collective agreements. This was followed by a period (in the 1970s) of increased HR focus on career path and workforce planning known as the *organization* theme. In the 1980s and 1990s, the focus shifted toward flexibility,

performance management, monitoring, and control under the *HRM* theme. The most recent theme, which focuses on global perspective, competitive advantage, engagement of employees at work, and customer-centered focus in organizations, has been labeled as *new HR*. However, there is a gap between the academic literature and the daily practice of HR. Kaufman (2007) observes that “still many companies continue to practice people management in a largely tactical, administrative, and cost-focused manner” (p. 42). However, Ulrich et al. (2008) posit that HR is growing dramatically in scientific sophistication and envisions that HR will someday be at the core of the company. In their view, HR is becoming more aligned with the business.

The structure of the HR departments in most large private and public sector companies seems to have changed from the classical centralized HR department into a model with more specialized functions such as shared services (focused on administrative HR), business partners (focused on working directly with line management on strategic development, performance, and organizational design), centers of expertise like recruitment and organizational development, vendor management (e.g., management of pension administration provided by third parties), and corporate HR (developing HR and people strategy) (Farnham, 2010).

A factor that has shaped the discussion of HRM is the development of the view that contemporary human resource management should be a strategic partner in a company, with a shift from short-term operational management toward a long-term vision regarding the human resource policy and a focus on sustainable competitive advantages.

	Company Objectives and Vision Company Strategy						
Corporate Functions	Company Framework						
Finance	Strategy	Systems	Structure	Skills	Style	Staff	Shared values
Production & Operations							
Human Resources							
R&D							
Marketing							

Figure 1: Alignment of company framework and functions. Adapted from *In Search of Excellence: Lessons from America’s Best-Run Companies* by T. J. Peters and R. H. Waterman, 1982, p. 11. Copyright 1982 by Harper Business Essentials.

In contemporary strategic HRM theory, the various HR functions are integrated with other HR functions within the business framework and the overall business strategy (Gerhart, 2007; Gmür & Thommen, 2007), as seen in Figure 1 above.

The concept of strategic alignment between HR strategy and business strategy is associated with contingency theory and based on the assumption that HR practices can be selected from a portfolio of possibilities to ensure they are supportive of the overall business and competitive strategy of the company (Taylor, 2010).

Kinnie, Swart, and Purcell (2005) argue for a selective approach that takes the specific situation and company strategy into account, but others (Huselid, 1995; Silzer & Dowell, 2010) argue that there are some HR best practices that have a potential beneficial effect for all companies, irrespective of the business strategy. A third group of authors (e.g., Bowen & Ostroff, 2004; Datta et al., 2005) argue that some best practices, such as incentives for performance, may have an overall positive effect on performance but may be implemented differently based on the situation and strategy of the company.

An alternative view of the alignment between business strategy and human resource strategy which has become prominent in HRM only in the last two decades (Allen & Wright, 2007), the resource-based view (RBV) of a firm, argues that a company would profit if it matched the business strategy to the current human resource base of the company instead of adapting HR practices to the business strategy. The focus is on those resources that give the company a competitive advantage over other companies (see Figure 2).

The importance of alignment between HR policies and other strategic elements is expressed in the seminal McKinsey 7-S framework: structure, strategy, systems, skills, staff, style—all united by shared values, from Peters and Waterman (1982).

Meta Function Strategic Human Resource Management							
Cross-Sectional Functions		Process Functions					
Human Resource Controlling	Assessment of Demand	Recruitment	Development	Human Resource	Assignment of Human Resources	Human Resource Retention	Human Resource Exemption
Human Resource Marketing							
Human Resource Information							
Organization of Human Resources							

Figure 2: Alignment of HR functions. Translated from *Retention Management für High Potentials* by R. Buri-Moser and A. Saxer, 2003, p. 2. Copyright 2003 by the University of Bern. Saxer Moser, 2003)

The framework from Peters and Waterman (1982) highlights the importance of the integration of hard factors like structure and systems with soft factors like style and shared values. Within the HRM setting, the importance of these soft factors, the culture of a company, and the values of employees and the fit between them, has been studied in stream of research on person-organization (P-O) fit (Sutarjo, 2011).

The importance of P-O fit has been highlighted by various authors (e.g., Ployhart et al., 2006; Sutarjo, 2011), and its impact on company turnover and overall performance has been acknowledged (Westerman & Cyr, 2004). Collins and Kehoe (2009) assert that P-O fit is especially important in companies that emphasize a family-like environment that builds on long-term commitment and tenure.

With the alignment of human resource strategy with the overall company strategy comes a shift in orientation from being a passive observer of business trends to a more active HR department that tries to understand and adapt to those trends (Ulrich et al., 2008). Analysis in human resource management was traditionally focused on the relation between employer policy decisions and individual performance. During the last two decades, however, HRM has evolved in that it also tries to understand the effects of employer-related policies on company-level outcomes such as profitability, survival, and parameters such as overall cost and quality of output (Gerhart, 2007).

Boudreau and Jesuthasan (2011) note that HRM needs to evolve further and propose a shift from an HR approach that often still relies on gut feel toward an evidence-based approach called *transformative HR*. In transformative HR, segmentation and optimization (investing in activities and segments that make a difference) play a key role. Davenport, Harris, and Shapiro (2010) propose six types of analytics to manage the workforce:

- human capital facts: analyzing human resource key performance indicators;
- analytical HR: reviewing units and departments in order to identify which ones need extra attention;
- human capital investment analysis: identifying the parameters that have the most impact on the business;
- workforce forecasts: making quantitative forecasts;
- talent value model: identifying which items of the employer brand and value system drive retention and or turnover of employees; and
- talent supply chain analysis: predicting the adaptation of talent needs based on changes in the business environment.

2.3 Management and Identification of High Potentials

In the literature, there is agreement that different groups of employees (segments) have different potential to add to the overall performance of a company and that, depending on the set of competencies, capabilities, and potential, different human resource strategies should be applied (Boudreau & Jesuthasan, 2011; Collins & Kehoe, 2009; Thom, 2007). Recruitment of high potentials is part of the overall talent management system of the company and comprises “those practices and activities carried out by the organization with the purpose of identifying and attracting potential employees” (Orlitzky, 2007, p. 273). There is less of a consensus in the literature regarding the definition of a high-potential employee. Contrary to other forms of

capital that can be quantified, the lifetime value of an employee is difficult to assess as potential is subjective and situation dependent (Troost, 2012); the remaining time with the company is difficult to estimate as well (Stiles & Kulvisaechna, 2003). Therefore, subjective qualitative assessments of the potential of a (future) employee have remained the mainstay line of thinking in the literature. Most of the literature asserts that high potentials have to be talented people and have the potential to add value to the company, but authors include different elements in their descriptions of high potentials, such as special social competence (Cavallo & Brienza, 2006), international exposure (Kienbaum Management Consultants, 2001), learning and development capability in connection with a high level of career motivation (Kunz, 2004), or performance in his or her current role (Thom & Friedli, 2003). According to Ready, Conger, and Hill (2010):

High potentials consistently and significantly outperform their peer groups in a variety of settings and circumstances. While achieving these superior levels of performance, they exhibit behaviors that reflect their companies' culture and values in an exemplary manner. Moreover, they show a strong capacity to grow and succeed throughout their careers within an organization—more quickly and effectively than their peer groups do. (p. 80)

Thom and Friedli (2003) use the term *key employees* as a synonym for high potentials, which, in their view, is a group of talented employees that exceeds the requirements of their current positions. Kienbaum Management Consultants (2001) emphasize the difficulty of recognizing a high potential with a specific profile of qualification, further describing a high potential based on the following four criteria:

- international orientation (study or work placement abroad),
- link to practice (in addition to theoretical background),
- achievement potential (above-average grades and short duration of study), and
- personality (social competence as well as the capacity to lead teams and projects).

Kienbaum Management Consultants and Morton (2005) use the term *high potential* as synonymous with *talent*, whereas others regard high potentials as talents with additional features (Kunz, 2004; Thom & Friedli, 2003).

The differences in definitions of high potentials and talent are also reflected in daily practice. In a survey of 20 large U.S. companies, Silzer and Church (2010) found a wide variety of approaches used to define high potentials. Of the questioned corporations, 35% defined them by role; 25% percent defined them by their assumed ability to perform in positions two levels above their current one; 25% percent defined them by the ability to take on a broader and leadership role; and 10% defined a high potential as someone who has a track record of extraordinary performance. Robbins and Judge (2009) emphasize the need for companies to hire employees who are able to switch teams and tasks readily in order to be able to respond rapidly to a dynamic and changing environment. Lewis and Heckman (2006) conclude that the lack of clarity regarding the overall goals, definition, and scope of the

management of high potentials is disturbing. Similarly, a 2006 United Kingdom survey of HR professionals found that “51% of these HR professionals surveyed undertook high potential/talent management activities, however only 20% of them operated with a formal definition” (Tansley, Harris, Stewart, & Turner, 2006, p. 2). The challenge of defining what a high potential is in a company reflects the complexity of making two types of predictions: to anticipate the profile of future leaders regarding abilities, attitudes, and experience that the company needs for the future; and to assess an individual beyond performance on the ability to learn and develop (Silzer & Church, 2010). Anticipation of the profile of the future leaders of a company is also conditional on the vision of current management about the future market development and strategy of the company. The assessment of the future potential of an employee or external applicant is contingent on the availability of an assessment framework and tools. Around 1950, many companies relied on the assessment of character through analysis of family background or extracurricular activities or through assessments with character-rating scales. These assessments were rarely based on hard science, though, and “these efforts were leaps of faith based on assumptions that the criteria being measured were the important factors in leadership” (Cappelli, 2008, pp. 192–193). Many companies still rely on various types of potential assessment, though Cappelli (2008) believes that a prediction of potential can only be done by giving employees and future employees the opportunity to perform in jobs and show their leadership skills. Silzer and Church (2010) found that past performance is often mistaken for future potential; not many organizations have clearly defined how potential is different (and can be assessed differently) from past performance or current abilities.

Some high-potential identification models, such as the model of the Corporate Leadership Council (Morton, 2005), emphasize individual traits of the employees, e.g., the ability, engagement, and aspirations of employees, whereas Silzer and Church (2010) describe models (such as the one from DDI Consulting) that go beyond individual characteristics and include potential fit with a company’s values and culture. According to their findings, companies are increasingly interested if the values of an internal or external high potential matches well with their company’s values and culture.

According to Silzer and Church (2010), the size of the internal high-potential pool differs from company to company and is contingent on the business environment, company strategy, and the culture of the organization. They found in their survey of 20 U.S. companies that the high potential pool is, on average, 9% to 10% of the total population of employees, whereas Byham, Smith, and Paese (2002) estimate the average size of the high potential pool to be 1% to 2% of the total population of employees.

There is an overall agreement on who is involved with high potential management and monitors development in the academic literature and daily practice. Sloan, Hazucha, and van Katwyk (2003) state that senior line managers and their HR business partners should align

their high-potential management practices. A large survey of global companies in 2007 confirmed the importance of involvement of human resources as well as chief executive officers and other managers (Stahl et al., 2007). In order to have a competitive advantage, high-potential management has to be the combined responsibility of line management and human resources, be embedded in the value system of the company, and be aligned with its values. A combined effort of management and HR is important to ensure internal consistency and complementarity (Stahl et al., 2007).

Not every talented or high-potential employee will use his or her potential and become a high performer, however. Spickschen (2005) makes a distinction between offered potential, acquired potential, and used potential. *Offered potential* is part of the acquired potential that the high potential makes available to the company and can be defined as the sum of capabilities and qualifications that a high potential presents to the company. It is determined through the initial phases of the recruitment process, in which the company and potential employee get to know each other and decide to work together in the future. The *acquired potential* is defined as the available sum of all capabilities, qualifications, and characteristics and is determined by the contact and selection phases of recruitment process. Only the *used potential*—a mixture of the original available potential of the potential employee and the ability of the company to attach to this potential and release it within the settings (and to the benefit of) the company—is the “performance indicator” for the translation of offered and acquired potential into the level of performance. Spickschen (2005) notes that used potential is not part of the recruitment process, as it is dependent on the effective use of a high-potential employee within the company. The used potential depends on—among other variables—the business strategy, which can change over time, making a high-potential employee obsolete. This line of discussion in the literature reflects the importance of a system within the company that actively seeks to manage the high-potential employee as well as the contributions of these high potentials to the company (Silzer & Dowell, 2010). It also highlights the difficulty of transferring the internally used definition of high potentials to the recruitment setting.

In the last two decades, there has been a growing interest in high-potential management. Boudreau and Ramstad (2005) argue that organizations should invest in high potentials. They emphasize the significance of building a framework around the management of high potentials to define the connection between talent resource and business strategy. Ulrich et al. (2008) point out that HR strategies and activities should not only be integrated in the business strategy, but should also be managed with the perspective of an external customer. The ability to integrate HR strategies with customer perspectives implies a system that identifies the needs of these customers and translates these needs into a framework that delivers the necessary output.

Developing an effective high-potential management system is a significant topic of discussion in the literature. A key element of a strategic talent management system is the

identification of talent pools in which a small increase in the quality of the applicant pool has a major impact on the company (Ryan & Delaney, 2010). Sloan et al. (2003) group the key high-potential management activities into three clusters: (a) attract and retain, (b) select and transfer, and (c) mobilize and develop. These authors start the high-potential management process with the definition of the value proposition for employees. The *employee value proposition* represents the attributes and benefits of working for a certain organization. The proposition is built on three elements (Joyce, 2010).

- Differentiation: Each organization should have attributes that make the organization more interesting for high potentials than its competitors.
- Credibility: An employee value proposition is not aspirational, but is built on the reality of the organization.
- Sustainability: The organization should be able and willing to honor the promises made to high potentials.

Next, they identify the high-potential gaps, choose the source for needed talent, align talent management processes, and, finally, build organizational support mechanisms. Several theories from international HRM and related fields such as sociology and industrial psychology may serve as a basis to understand talent management systems. These vary from broader theoretical frameworks such as institutional theory, human capital theory, configurational theory, and strategic contingency theory to theories specifically developed in the field of talent management, such as workforce segmentation (Schuler & Tarique, 2012). *Workforce segmentation* focuses on identifying the categories of employees that should be included in the talent pool and assumes that some individuals add more value to the company compared to others. Becker, Huselid, and Beatty (2009) and Boudreau and Ramstad (2005) categorize company employees and positions based on the value added and importance and propose to manage these categories as a portfolio. A theoretical framework that potentially supports workforce segmentation is competency modeling. *Competency modeling* is the analysis of organizations and positions within these organizations and assesses the knowledge, skills, and abilities needed currently and in the future. Becker et al. posit that the probability is high that a substantial part of talent management efforts is dedicated to the individuals with the highest impact on the companies' strategy and positions that are most differentiated in performance.

Cappelli (2008) and Joyce (2010) emphasize the importance of a direct relationship between talent management and the business strategy. Cappelli (2008) proposes a paradigm shift away from a system focused on internal development and reactive outside hiring toward a system built around four principles:

- minimize the risk of over- and undersupply of talent through the development of a mix of developing talent internally and external recruiting;
- reduce the uncertainty in the prediction of demand for high potentials (e.g., through the

initiation of talent pools and centralization of talent development);

- achieve an adequate return on investment from employee development; and
- create an internal job market.

Joyce explicitly links the management of high potentials to the business strategy. Depending on the business strategy of the company, one of four high-potential strategies (or a mixture thereof) may be applied: buy (recruit); build (develop); borrow (contract and contingent); or bind (retention). Each company has to define the high-potential acquisition strategy that best supports its business strategy to meet its talent needs. In comparison to the other strategies, recruiting can be effective when the organization needs or wants to get high potentials (talent) quickly; the organization is growing rapidly and the need for talent exceeds the internal pool; or the organization is in a transformation phase and new ideas and perspectives are essential for changing the culture. The advantages of the external recruiting strategy are quick identification of top talent (through recruiters), the level of focus by a dedicated recruitment company, and the lack of a domino effect (hiring internal talent leaves a position to fill). Disadvantages include the financial costs, the resource intensity (multiple interviews can take considerable time from HR and line management) and sustainability (only applicable for a short duration and for certain segments (e.g., senior leaders)). In a study of 14 European heads of HR departments of large multinational companies, Smilansky (2006) found six focal points for an effective high-potential management system: (a) focus on critical jobs, (b) develop high performance talent pools, (c) assess potential, (d) develop capabilities of high-potential executives, (e) reduce the impact of organizational silos, and (f) develop solid performers who may not be high potentials.

However, although a growing body of research is evolving that aims to link high performance and high-potential practices with an increased output of the company, the findings are mixed (Combs, Liu, Hall, & Ketchen, 2006; Effron, Greenslaide, & Salob, 2005; Guest, Michie, Conway, and Sheehan, 2003). The literature has mainly focused on performance management processes, stronger leadership development systems, succession management, and employee involvement and their effect on the financial performance of the company (Combs et al., 2006; Silzer & Dowell, 2010).

In a recent survey of 22 global companies (450 CEOs, senior managers, and HR professionals), Guthridge, Komm, and Lawson (2008) found a link between a company's global high-potential management score and the financial performance of the company. The high-potential practices that distinguished the top third of the companies from the bottom third were creating internal talent pools, translating human resource information into action, creating globally consistent talent evaluation processes, achieving cultural diversity in a global setting, developing and managing global leaders, and recruiting global high potentials.

Ryan and Delaney (2010) assert that applying the perspective of an integrated strategic talent management approach to recruitment will shift the focus of research from what works

for all applicants toward what practices work best in specific contexts for specific target populations. Therefore, it is imperative that the needs of the high potentials are known. This is similar to the marketing of products and services, which requires organizations to develop an in-depth understanding of its customers (Kotler & Armstrong, 2010) as the first phase in the marketing process. Recruitment as the marketing of jobs (Roberts, 2012), similar to the marketing of other products, therefore requires knowledge of the target market of persons who are capable of consuming the product offering (Maurer & Liu, 2007; Schamberger 2006).

2.4 Marketing Concepts

Marketing has three major responsibilities: identify and recruit new customers, retain current customers, understand customer (lifetime) value and manage the customer base accordingly (Bloching, Luck, & Ränge, 2012). It has been a subject of great interest in the last four decades, resulting in a wide range of literature on various topics (Polonsky & Ringer, 2012). Academic topics as well as topics with more practical implications in all of the main fields of marketing, such as positioning and market research, are discussed. The influence of marketing differs geographically, however; the marketing department is dominant in companies in countries like the United States and Israel and is less influential in European companies (Leefflang, 2011).

The evolution of marketing can be traced along the various paradigms that have dominated the literature: (a) the functionalist paradigm, (b) the marketing management paradigm, and (c) the exchange paradigm (Achrol & Kotler, 2012). The discussions within the functionalist paradigm were about marketing institutions and their functions, whereas in the subsequent marketing management paradigm that followed, customer care became the responsibility of the whole company. The exchange paradigm, also known as the generic paradigm, expands marketing philosophy beyond the exchange of goods and services into other valuable resources such as time, ideas, and information. The exchange paradigm is reflected in the American Marketing Association's (AMA) latest definition of *marketing*, which "is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large" (Wilkie & Moore, 2012, p. 64).

McDonald and Dunbar (2007) identify four distinct processes within marketing: define markets and understand value, determine the value proposition, deliver the value proposition, and monitor the value delivered to and received by the customer. In their view, marketing is a cycle; the monitoring of the delivered value will update the organization's understanding of the value required by its customers. Kühn and Pfäffli (2012) distinguish two phases in the marketing process, the marketing situation analysis phase and the marketing concept decision phase. In the first phase, the market structure and trends are analyzed, critical success factors are determined, and market segments are identified. Together with an internal analysis of the

strengths and weaknesses of a company, this phase results in an overall diagnosis of a company's situation. These are used to define the strategic framework in the second phase. In Kühn and Pfäffli's concept, three strategic decisions have to be made in this phase: strategy, positioning, and distribution and promotion channels. Although many organizations seem to have embraced the marketing concept in one form or the other, there are distinct differences regarding the level of customer centricity and how these organizations use knowledge to improve their marketing (Leeflang, 2011).

According to Kotler and Armstrong (2010), a customer-centered company is one that "focuses on customer developments in designing its marketing strategies and on delivering superior value to its target customers" (p. 570). A customer-centered company not only has the objective to deliver superior value, but also states its business objectives in customer terms. Kotler and Armstrong emphasize the importance of including competition considerations in addition to customers' perspectives, which results in a market centricity of the company. The concept of customer centricity has, in the last decade, been extended to a concept known as *customer engagement* (van Doorn et al., 2010)—a concept in which the customer is active and involved in the further development of products and services. Important elements of this concept are customer participation in firm-related activities (e.g., physician participation in advisory boards in the marketing of pharmaceutical products, brand communities); word of mouth (e.g., a message on a blog); referrals; and recommendations. Although implemented in different forms, the concept of customer engagement is applicable in the business-to-consumer (B2C) as well in the business-to-business (B2B) marketing setting. In the B2C setting, the focus can be on the online consumer experience, whereas in the B2B setting, the co-creation of new products can be a focus (Brodie, Hollebeek, & Smith, 2011).

Another quality aspect of contemporary marketing highlighted by Leeflang (2011) is how knowledge is used to inform marketing decisions. He asserts that the quality of distinguished marketing decision making is knowledge based. These decisions should be based on relevant information and adequate decision tools. Marketing knowledge contains three components: specific knowledge, generalizable knowledge, and models and methods. On a similar note, Atuahene-Gima and Murray (2004) posit that the comprehensiveness of a marketing strategy is a key element of the quality of the marketing strategy. They define *marketing comprehensiveness* as

the extent to which project members are extensive in the search for market information, the generation of many alternative courses of action, the examination of multiple explanations, and the use of specific criteria in making decisions in marketing strategy development and implementation. (p. 33)

Several examples (Nijs, Misra, Anderson, Hansen & Krisnamurthi, 2010; Wuyts & Geyskens, 2005; Wuyts, Stremersch, Van den Bulte, & Franses, 2004) describe specific marketing topics

such as vertical marketing systems, channel pass-through, and partner selection, whereas other topics, such as the opportunities of social media, have not yet been extensively covered (Leeflang, 2011). Generalizable marketing knowledge can be obtained through a meta-analysis of individual (specific) studies, through studies that cover various circumstances (e.g., Lamey, Deleersnyder, Dekimpe, & Steenkamp, 2007), or through simulation experiments (Andrews, Currim, Leeflang, & Lim, 2008). Models have been widely used in marketing, however. Early research and modeling based on price elasticity and the economic theory of consumer behavior emerged in the 1960s and 1970s (Leeflang, 2011). More recently, several researchers (e.g., Ding & Eliashberg, 2008; Goldenberg, Libai, Moldovan, & Muller, 2007) have modeled choice behavior and agent-based modeling, such as interactions between physicians and patients and a simulation of how unfavorable news about a company influences the company brand, effecting the present net value of such a company. The use of models to support marketing decision making has been associated with improved performance in situations that require repetitive decisions, are rich in data, and are uncertain (Kayande, De Bruyn, Lilien, Rangaswamy, & van Bruggen, 2009). Brynjolfsson, Hitt, and Kim (2011) found that data-driven decision support improved company productivity by 5% and profitability by 6%. Although no direct evidence is available about the penetration of marketing decision models, Leeflang (2011) found a few cues that suggest an increasing dissemination. Several management consulting companies, such as the Boston Consulting Group and McKinsey, have developed user-friendly dashboards to support companies in decision making based on modeling approaches (Pauwels et al., 2009), and the diffusion of metrics in companies implies the use of decision models. An analysis of 183 Dutch firms by Verhoef, Hoekstra, van der Scheer, and de Vries (2009) found that many organizations collect and analyze customer data systematically (almost 70% use cluster analysis). However, the management of customer data can be challenging: Bijmolt et al. (2010) identified several potential gaps between marketing management and the management of information.

Bloching et al. (2012) assert that the contemporary marketer is able to have a more exact view of the total market and its segments in addition to the ability to profile single customers, connecting market research, segmentation, and customer relationship management (CRM). Large amounts of accessible data and algorithms that support analysis of the data allow them to address segments of one (single customers). They observe that classical marketing that relies on mass marketing is becoming less effective as the markets get more fragmented. Society is becoming more heterogeneous, which translates to more and smaller customer segments. Globalization results in multiples of products and services—the media channels from which a potential client can choose has increased; competition has intensified; and distribution channels have diversified (e.g., online detailing). Although the availability of market data and algorithms to analyze that data as such is not enough, it has to be connected

with a company's focus on the deliverance of customer value in order to bring value to the company (Bloching et al., 2012; LeeFlang, 2011).

2.4.1 *Marketing Intelligence and Market Research*

A common misconception about market intelligence or market research is that it is about asking people questions about their values and behavior (Phillips, 2007). From the beginnings of market research—the Art Nielsen retail audits—to contemporary market intelligence—analysis of the purchase information gathered through shopping/loyalty cards and secondary data sources—database analysis has played an important role in market research. Market research has therefore been categorized by *primary research* (e.g., field studies) and *secondary research* (e.g., desk research; Burns & Bush, 2013).

Whereas van der Scheer (2012) differentiates between market research and market intelligence: market research being forward looking and marketing intelligence being “backward looking database analysis” (2012, p. 129), ESOMAR, the world association for market, social, and opinion research, uses the term *marketing intelligence* to describe how organizational decision making benefits from market research and other sources of marketing information. According to Fredrik Nauckhoff, former president of ESOMAR, “the purpose of marketing intelligence is to provide management with the facts, information and insights it needs to rapidly make the best, most efficient business decisions” (Smith, 2007, p. 3). Organizations are increasingly aware of the importance of having information about their key stakeholders and understanding current and future customers (Smith, 2007). Blattberg, Kim, and Neslin (2008) have identified six reasons why the importance of marketing intelligence has increased over the last two decades:

- an increased ability to store and manage data;
- the availability of the Internet as a source of data about customers;
- a trend toward one-to-one marketing because of lower productivity of classic marketing instruments such as mass marketing and the increase of contemporary, state-of-the-art target selection techniques;
- an increased scrutiny within companies of marketing expenditure;
- an increased interest in customer relationship management because of increased importance of customer centricity; and
- an increased awareness of the possibilities of marketing intelligence as a tool for differentiating from the competition.

As with its importance, the complexity of marketing intelligence has also increased over the years. Social media has offered consumers more avenues for informing themselves, the number of distribution and promotion channels has increased, and clustering of customers has become more difficult (van der Scheer, 2012). In contemporary marketing of services and products, new algorithms are built and developed that enable market researchers to improve

segmentation in real time based on past behavior instead of context (e.g., situation), which allows companies to identify and target their most valuable customers (Bloching, Luck, & Ramge, 2012).

The most common way to categorize primary market intelligence is to describe it as qualitative or quantitative work (Phillips, 2007). Other broad types of marketing intelligence have been distinguished (Smith, 2007): market research that evaluates the past versus market research that aims to support understanding the future; in-depth research versus top-level research; descriptive research versus analytical research, which attempts to understand the causes of a phenomenon; and monitoring research versus research aimed toward generating new ideas.

According to Kühn and Pfäffli (2012), the tasks of market research are to define the market and market structure; describe the consumers/product users, channels, key influencers, and competitors; and identify the key success factors in a specified market or segment. However, contemporary market research covers a broad range of fields ranging from media research, institutional and social research, and B2B research to employee research using a broad variety of instruments, such as experiments (e.g., tests of taste preference), database analysis, opinion polling, and semiotics (e.g. analysis of the cultural context of communication with respondents).

In-depth understanding of consumers is imperative in industries such as the automotive industry, telecommunications, and the health-care sector, in which important changes are mainly technology driven and have a long-term impact on the involved companies. Translation of technology into solutions and products that fulfill customer needs is especially important in these fields (Huisman, 2007). The health-care sector is very market-research intense (measured as the market research expenditure in relation to the overall health-care share of the gross domestic product [GDP] in the United States), employing advanced and complex types of market research (Huisman, 2007). Most market research in this industry is initiated by the pharmaceutical and related industries. Although the health-care sector is not homogeneous, the main reason to conduct market research in this industry is the high commercial risk involved in the research and development of new compounds.

Recently, market intelligence has been merging with related fields. Market research and segmentation research can be used to improve the customer database in the CRM system in a process called database augmentation (Kamakura & Wedel, 2003). Based on market research of subsets of customers from the database, predictive models are built to correlate survey with internal data, producing estimates of the survey results on an individual level. Another related field that is expected to merge with marketing intelligence is Web analytics (van der Scheer, 2012). Information about online behavior is integrated with offline sources. The integration of marketing intelligence and Web analytics allows for behavioral targeting using information about, for example, consumers' physical shopping habits and online surfing and shopping

behavior. According to recent research (van Dongen Crombags, van Doorn, & Hoekstra, 2010), consumers would appreciate a personalized offering as long as it is not obvious from the offering that the company has their personal information. Bloching et al. (2012) posit that a growing population of consumers shares data out of conviction and actively looks for a dialogue with companies. Web analytics and analytics are related by a concept called *big data* in that data is used to guide decisions in both. However, big data differs from analytics in three aspects (McAfee & Brynjolfsson, 2012).

- The size of the data pool of big data is a multiple of what was available just a decade ago.
- The potential speed of analysis of big data is in real time.
- There is an abundance of different data from different sources in big data.

The emergence of more powerful information technology, data-mining techniques, and the combination of online and real-life data transforms market research in such a manner that it is, in principle, able to elaborate an understanding of behavior and drivers of behavior of every single potential customer. This transformation of market research may be on the level of every single customer with permission, such as through analysis of customer (shopping) data or by using anonymous market research to enhance the information of identified customers (data fusion or data augmentation) (Bloching et al., 2012). The shift from intuition toward data-based decision support systems as the basis for marketing strategy and implementation has been marked as a paradigm shift (Ayles, 2008) or revolution (McAfee & Brynjolfsson, 2012) in history: intelligent collection and integration of data in marketing will be a significant competitive advantage.

Within Kühn and Pfäffli's (2012) CRM concept of marketing, market research, and segmentation (including segments of one) are two phases. In the first phase, key activities include gaining an understanding of the critical success factors in the market and the partitioning of the market based on these factors (segmentation). In the second phase, the market segmentation strategy (targeting, or which market segments will be targeted by the company) is one of the three key strategic decisions. The segmentation of the market in this model is the interface between the strategic decisions regarding positioning, channel management, and targeting. Rigby, Reichheld, and Scheffer (2002) posit that "to implement CRM [customer relationship management] without conducting segmentation analyses and determining marketing goals would be like trying to build a house without engineering measures or an architectural plan" (p. 102). A clear understanding of the critical success factors that define customer behavior and the distribution of these factors to potential customers (the segments) is mandatory before decisions can be made about who to target (targeting), through which channels (channel management) and with how much emphasis will be placed on certain product attributes (positioning).

2.4.2 Segmentation Research

Segmentation research is an important topic within marketing intelligence. It allows marketing strategy to focus on certain target groups (McDonald & Dunbar, 2007; Weinstein, 2006). In a 2004 global survey of senior managers of 200 large corporations, 59% reported being involved in a segmentation exercise in the last two years (Yankelovich & Meer, 2006).

There is considerable variance in the academic literature regarding the definition of market segmentation and how it is differentiated from other marketing tools. In some market segmentation literature, it is described as a marketing strategy (e.g., Frank, Massy, & Wind, 1972). Others, such as Smith (1956) define *market segmentation* as

viewing a heterogeneous market (one characterized by divergent demand) as a small number of smaller homogeneous markets in response to differing product preferences among important market segments. It is attributable to the desires of consumers or users for more precise satisfaction of their varying wants. (p. 6)

In this sense, market segmentation can be perceived as a partitioning process in which the observer views the market as being composed of various more-or-less homogeneous submarkets. Targeting is the prioritization process in which is decided on which submarket/segment a tactic will be focused. Market segmentation and targeting can therefore be regarded as, respectively, the information (collecting the evidence) and the action (the choice of the focus of the marketing efforts) aspects of the overall segmentation strategy. In the information collecting phase, information about the market and its characteristics is gathered and processed in order to be able to identify segments. Based on relevant segmentation criteria, the market is partitioned and the segments are labeled accordingly (Challiol & Mignonac, 2005). In the action phase (targeting), the identified segments are valued in terms of potential, and a selection of segments is made (Kotler & Armstrong, 2010).

Segmentation literature can be found in three areas of research that explain consumer behavior. One school of thought is grounded in the economic demand theory, whereas other research draws on concepts from psychology and sociology. The economic demand theory is linked to the law of supply and demand, which states that there is an inverse relationship between the price of a good or service and the demand for that good or service. Segmentation techniques are based on the assumption that it is possible to identify existing segments with different demand functions. The literature differentiates between “old demand theory,” in which products are regarded as an entity, and “new demand theory,” in which products are perceived as a combination of attributes. Lancaster (1966) developed a theory of economic demand in which products are viewed as multicomponent packages of characteristics. Lancaster posits that “it is the properties or characteristics of the goods from which utility is derived” (p. 133). His model postulates that goods are employed either singly or in combination to produce the characteristics that are the source of the consumer’s utility.

Most economic literature builds on Smith's (1956) observation of "heterogeneity in the demand of goods and services" (as cited in Wedel & Kamakura, 2000, p. 3), though there has been considerable dispute about whether these segments exist naturally or are established through the activities of suppliers. Some researchers (e.g., Frank et al., 1972) assert that the way the customer uses a product or service and the benefits sought differ depending on the customer's individual preferences, choice behavior, and the response to different marketing mixes. In contrast, Smith (1956) and Wedel and Kamakura (2000) believe that most differentiated demand is artificially induced by the suppliers. Both naturally existing segments and constructed segments exist next to one other. In practice, several data-driven segmentation studies seem to be built on the artificial construction of segments by the suppliers without making this explicit (Dolnicar & Leisch, 2003).

Although there are theoretical differences between economic demand theory, which emphasizes differences in demand, and psychological reinforcement theory, which emphasizes inducement of demand, there also seem to be similarities (Cooper, Field, Goswami, Jenkins, & Sahakian, 2010). Differences between economically oriented models and psychologically based attitude and scaling models are more related to the tasks of the various models (e.g., estimation of potential sales of a segment versus identification of certain groups with different buying behaviors) than to a philosophical conflict and therefore can be used in parallel. These psychologically based attitude and scaling models are used in consumer behavior theories and are also referred to as market psychology, a sub-area of applied psychology (Mayer & Illmann, 2010). It is this subsection of psychology that analyzes the experiences and behaviors of individuals and groups as they participate in a market as a provider or consumer. Theories regarding consumer behavior have had a strong influence on segmentation and targeting. The definition of *consumer behavior* focuses on the buying process, but it may be applied to other market situations involving groups (Mayer & Illmann, 2010).

To date, there is a significant body of segmentation research concerning the generation of segmentation bases and models, research methodologies regarding data requirements and collection methodologies, and the development of statistical analysis tools and their application (Dibb & Simkin, 2009). In the 1980s and 1990s, research focused on such areas. This preoccupation with data requirements and research methodologies resulted in a very fragmented view of segmentation and a lack of a more conceptual approach on segmentation and targeting (Wedel & Kamakura, 2000). Research focused on integrating the findings in these numerous studies into an overarching segmentation concept, as well as specific analyses of the influence of context on segmentation, such as the emergence of social networks, is scarce.

Goller, Hogg, and Kalafatis (2000) propose a segmentation concept that comprises the antecedent to segmentation, prerequisites of the segmentation process, the segmentation

process, and the outcome of segmentation. Research has emphasized various different antecedents of segmentation. Goller et al. describe the importance of a market orientation of the company regarding segmentation and highlight the importance of the influence of senior management support on segmentation. Other literature posits that segmentation approaches are purpose and context dependent (Clarke & Freytag, 2008; Wyner, 2002; Yankelovich & Meer, 2006).

The literature on segmentation prerequisites stresses the importance of fulfilling six criteria for segmentation to be used effectively as a marketing strategy (Wedel & Kamakura, 2000). Segmentation is viable if segments are

- identifiable: the extent to which one can carve out distinct groups in a population by using different segmentation bases;
- substantial: the level to which the segment represents a large enough part of the market. This portion of the market should be large enough to allow a profitable targeting of these segments;
- accessible: the ability to reach a certain segment. This may depend on the availability of secondary data such as demographics or other customer characteristics. With the emergence of more sophisticated information gathering and database tools, segments may become more identifiable and accessible than in the past;
- stable: the volatility of the segments;
- responsive: the level to which a consumer/segment responds to the marketing efforts targeted at this segment; and
- actionable: the identification of this specific segment that gives guidance for the decision on the specific marketing instruments to be used in targeting.

Dibb and Simkin (2009) propose a taxonomy of segmentation research that splits the topic in four fields: segmentation analysis, segmentation evaluation, implementation of segmentation, and control of segmentation. Most academic research has focused on the field of segmentation analysis, specifically in multivariate techniques, the choice of variables, and the validation of outputs (Wedel & Kamakura, 2000). As a result, there is a gap between the academic literature and real-world situations in which segmentation is applied. Until recently, less focus has been on the implementation of segmentation (Wedel & Kamakura, 2000). The implementation of segmentation can be prone to operational constraints, data availability, and lack of senior manager involvement and support (Dibb & Simkin, 2009), which can make segmentation implementation more costly. The implementation of market segmentation has direct advantages, however, ensuring marketing programs that are better aligned with customer needs as well as indirect advantages through the improvement of the customer orientation. Thus, a competitive advantage, as well as an increase in the profitability of the organization, can potentially be developed (Dibb & Simkin, 2009; McDonald & Dunbar, 2007). The overall benefits of the segmentation approach are widely accepted (Dibb &

Simkin, 2009). Nevertheless, it is important to weigh these benefits with the resource implications of the introduction of segmentation in practice (Weinstein, 2006).

In the past two decades, the development of statistical software and more sophisticated segmentation techniques has led to increasingly smaller segments (Riemer & Totz, 2001). Analytic techniques, sophisticated databases, and computing power (and the combination of the three) allow the definition of smaller and smaller segments. This splitting of segments into the smallest possible elements is often referred to as *atomization* or *finer segmentation* (Weinstein, 2006). Atomization allows one-to-one marketing, which focuses on the needs and interests of each customer. Depending on the characteristics of the industry, addressing the smallest possible segments (individuals and/or businesses) can potentially be a profitable sustainable strategy that allows a company to differentiate itself from competition and/or focus on a niche (Weinstein, 2006).

The management of these segments of one is operationalized in customer relationship management (CRM) systems. The combination of a CRM system and *propensity modeling*—which allows one to make predictions about the probability of future actions of individual customers based on their previous activity—makes it possible to predict the response of individual customers to an offering (Bailey, Baines, Wilson, & Clark, 2009). If and how segmentation plays a role in marketing after the introduction of CRM systems has been a topic of discussion. Some authors (e.g., Bainbridge, 2009; Rigby, Reichheld, & Scheffer, 2002) argue that a sound segmentation is the basis of every CRM system and can potentially improve targeting effectiveness and enhance the fit of an organization with changing consumer behavior and needs, whereas other authors (e.g., Dibb, 2001; Kumar, Venkatesan, & Reinartz, 2006) argue that a CRM system combined with propensity modeling fulfills the same purpose as segmentation but with greater depth. The differences between the atomization/CRM and segmentation approach are listed in Table 1. In a study of five multinational, mainly service-based companies, Bailey et al. (2009) found that segmentation remains vital for marketing planning and that sophisticated companies in data-rich environments should consider using additional propensity modeling on the individual customer level to forecast future behavior.

Information from these propensity models and the CRM system could optimize the segments used (Bailey et al., 2009) and increase customer insight. Hence, in current marketing practice, other elements of customer insight (e.g., from the CRM system or competitive intelligence) need to be added to segmentation information to support the achievement of strategic and operational marketing (Bailey et al., 2009).

Recent research (e.g., Yankelovich & Meer, 2006) highlights the gap between conceptual thinking and empirical focus. The validity of segmentation is only given if the variable used correlates with behaviors of interest. Accordingly, a prerequisite of market segmentation is the identification of the main predictors of behavior. However, the literature is not conclusive if

Table 1: Comparison of Atomization and Segmentation

Strategic Focus	Segmentation	Atomization & CRM System
Market Segments	Groups	Individuals
Marketing Mix	Same for entire segment	Tailored to each customer
Promotional Strategy	Mass communication	Individual addressability
Promotional Emphasis	Awareness creation, preference	Tailoring offerings to customer needs/interests, retention
Marketing Flexibility	Largely inflexible within a given time period	Highly flexible and adaptive
Marketing Competence	elaborate action marketing programs for certain segments of customers	Elaborate customer insight on individual level among segments to craft profitable dialogues with individual customers

Note: Adapted from Weinstein (2006)

variables such as demographics or psychographics, like values and behaviors, are better predictors of behavior. It is difficult to generalize from empirical research which variables have what effect under which circumstances. Although the mainstay of academic and commercial empirical work focuses on demographic variables, Goller et al. (2000) found little or no link between demographic descriptors and purchase behavior or segment membership nor proof for predictive power of cognitive variables with the exception of research situations, in which conditions could be controlled. Cierpiecki, Faulkner, and Rungie's (1998) seminal meta-analysis found that behavioral variables were sometimes better predictors of buying behavior and, overall, at least as good as demographic ones.

Most segmentation research has been based on results of the consumer marketing environment. Mayer and Illmann (2000) differentiate between several classical approaches, such as:

- segmentation based on sociodemographic variables (e.g., gender, age, education); geographical variables (e.g., climate or individual characteristics); and volume. A special variant of the segmentation on sociodemographic variables is the segmentation based on lifecycle, in which age, gender, profession, and number and age of children are used to build segments.
- segmentation of psychographic (lifestyle) variables. In this approach, segments are built based on sociological and psychological characteristics, such as level of dependence on groups, level of openness for innovation, and value perceptions.
- segmentation based on consumer behavior. In this approach, known as *benefit*

segmentation, segments (see Weinstein, 2006) are built based on behavioral aspects, such as buying behavior and product and brand loyalty. A similar approach has been undertaken in service marketing, where switching propensity was the basis of the segmentation approach.

Currently, mixtures of the three approaches are used, and there is no clear linear emergence of these approaches over time (Wedel & Kamakura, 2000). However, the segments based on demographic variables are often easier to track, easier to quantify, and less costly to elaborate and were therefore used first.

2.5 Marketing within Human Resources

Since the early 1960s, marketing has been a scientific topic in human resource management. Schubart (1962) introduced the concept of *personal marketing*, which is defined as the implementation of marketing philosophy into the human resource field. This concept of personal marketing reappeared as human resource marketing in the late 1980s. The difference between the attributed importance to human resource marketing and the rather rudimentary level of research was striking, however (Stickel, 1995). Human resource marketing (HRM) builds on the generic classical concept of marketing. Contrary to classical marketing, however, which focuses on transactions that involve goods and services, human resource marketing includes transactions independent of the involvement of goods and services (Kotler, 1972). Within HRM, market relations may be regarded as exchanges between units. The objective of these exchanges is the fulfillment of needs (Schamberger, 2006).

Most scientists use the sociological, psycho-sociological, and behavioral approaches as explanatory frameworks for human resource marketing (Dietmann, 1993). One example from these fields is the stimulus contribution theory, in which organizations are regarded as coalitions in which the participants influence each other (Schamberger, 2006) and are motivated to contribute to the organization by responding to stimuli from their environment. Every potential participant of that organization will make their contribution based on the expected satisfaction of their stimuli. Successful human resource marketing, then, has to have as a starting point the needs of (and potential contribution of) the (potential) employee (Schamberger, 2006) and the design of the incentives (stimuli) from the employer perspective (Stickel, 1995).

The perspective on human resource marketing has differed over time among authors. Beck (2008) distinguishes between three main concepts of human resource marketing: a restricted view that regards human resource marketing as an operational tool for external recruitment of employees; a broader view that perceives human resource marketing as an operational toolkit to link, motivate, and develop employees on one side and recruit eligible employees on the other side; and the broadest view, which sees human resource marketing as a philosophical and operational concept that implements the marketing attitude throughout the whole of

human resource management. In this view, recruitment is part of the human resource marketing concept.

Segmentation and targeting as strategic options (referred to as *partitioning* and *prioritizing* in the strategic 4Ps from Kotler, 1984) belong clearly within the broadest definition of human resource marketing. A successful, sustainable transfer from product and service marketing to strategies and instruments in human resources can only be achieved if the full marketing concept is taken into account. Different researchers have developed different perspectives on the relationship between human resource marketing and recruitment. Recruitment has been described as the marketing of jobs; Boudreau (as cited in Roberts, 2012) posits that HR should consider “how marketing professionals would look at employees as ‘consumers of work’” (p. 26). Salmen (2012) developed a model in which e-recruitment, employer branding, and human resource marketing are individual elements of a talent relationship management system. Others regard recruitment to be part of human resource marketing. According to Meyer-Ferreira (2010), the following activities are part of the human resources marketing function:

- translation of the business strategy to the quantitative and qualitative planning of company needs regarding number and profiles of employees (capabilities);
- analysis of the recruitment market and definition of target segments;
- definition of the offering to the target markets with a focus on the needs of the customers in those target markets. An important aspect of this is the employer brand;
- definition of the distribution channels and the process of recruiting; and
- development and implementation of a potential applicant relationship management system (similar to a customer relationship management (CRM) system to comprehensively manage and cultivate the relationship with potentially important future target groups.

On a similar note, Trost (2012) identifies three instruments of human resource marketing that differ in reach and closeness to the potential candidates. Employer branding is the marketing instrument with the broadest reach that is farthest from the potential candidates. Recruiting is the instrument with the narrowest reach that is closest to the potential candidate, in which an intense relationship with the individual potential candidate already exists. The third instrument in his model—which is placed between employer branding and recruitment in reach and closeness to the potential candidates—is the identification and monitoring of the target population. Trost stresses the importance of an intensive examination of the target population and refers to this relationship between employer branding and recruitment as talent relationship management. He asserts that the starting point for building such a talent relationship management system is a clear understanding of the target population. Similarly, Bainbridge (2009) and Rigby et al. (2002) argue that a sound segmentation is the basis of every CRM system. The reviewed literature can be clearly divided into these elements—

recruitment, employer branding, and segmentation and targeting (including talent relation management)—of human resource marketing.

2.5.1 Recruitment and Selection

Contemporary approaches in talent management emphasize the importance of alignment between recruitment practices and the strategic goals of the company (Lewis & Heckman, 2006). The regular reviews of recruitment research over the last decades (Barber, 1998; Breaugh, 2013; Breaugh & Starke, 2000; Ployhart et al., 2006; Ryan & Delaney, 2010; Rynes, 1991) demonstrate a sustained interest in the topic. Collins and Kehoe (2009) posit that the staffing function, which includes recruiting and selection, has become the most vital HRM function for success and survival.

The definition of *recruitment* has been summarized as “those practices and activities carried out by the organization with the purpose of identifying and attracting potential employees” (Orlitzky, 2007, p. 273). The focus is on the identification and attraction of employees. Yancey, Ortega, and Kumanyika (2006) differentiate between *passive recruitment*, which is disseminating information in a population to prompt individuals to contact the organization, and *active recruitment*, which is directly contacting potential applicants. Spickschen (2005) categorizes recruiting activities based on the objectives of the recruitment process: targeted recruitment (i.e., activities performed in order to fill a vacancy), general recruitment (e.g., programs for incoming MBAs), and image measures (i.e., building the employer brand).

Millmore (2003) developed a concept known as *strategic recruiting*, which focuses on the recruitment of high potentials that are able to run the business in the long term. In order for recruitment to be strategic, three primary criteria (in addition to secondary criteria like rigorous evaluation and sophisticated validated selection methods) have to be fulfilled: 1) the business strategy drives the recruitment and selection process; 2) personnel specifications are constructed based on organization needs, and the needs analysis is based upon the strategy and HR objectives; 3) and the future and contemporary needs of the organization are reflected in the specifications for recruitment. In an analysis of 108 companies and organizations from a wide range of company sizes, and lines of business, the majority based in the United Kingdom, Millmore found that recruitment and selection is dominated by classical approaches and that only a few companies had adopted elements of strategic recruitment.

There is no overall consensus, however, on which activities belong to recruitment. For example, Spickschen (2005) includes branding of the company, contrary to Trost’s (2012) recruitment definition. Additionally, there is some disagreement about selection being part of the recruitment process. Dineen and Soltis (2011) have built on Breaugh’s (2008) sequential stage recruitment models and list three stages within the recruitment process: (1) generating viable candidates, (2) maintaining the status of viable applicants, and (3) post-offer closure, including selection. Silzer and Dowell (2010) view recruitment as the first of five processes

within talent management: (1) attract and select talent to the organization (recruitment), (2) assess competencies and skills in talent, (3) review talent and plan talent actions, (4) develop and deploy talent, and (5) engage and retain talent. These authors do not separate recruitment and selection; recruitment is regarded as a sum of processes that make paring possible—by expanding the pool of firm-appropriate candidates from which new employees will be selected—whereas Orlitzky (2007) believes that selection is the HR function that pares down the number of applicants.

Other researchers (e.g., Taylor, 2010) view recruitment (attracting applicants) and selection (choosing the most adequate applicants from the recruited pool of individuals) as separate activities, but acknowledge the overlap between them. Applicants can make direct inferences from the perceived fairness of the selection methods to what working would be like at the company, which influences their preparedness to get recruited (Lievens & Chapman, 2009). Dineen and Williamson (2012) have shown that with the appropriate screening messages in job advertisement, the number of unqualified candidates can be reduced and, thus, the quality of the talent pool increases. The inclusion of selection in recruitment, as done by Silzer and Dowell (2010) or Spickschen (2005), therefore seems to reflect current developments in the recruitment environment. In contemporary e-recruiting, the boundary between recruitment and selection diminishes as social networks make it possible to integrate several classic selection tasks within the interactive recruitment process. Selection or self-selection in an early stage of the relationship between employer and employee then leads to a potentially targeted recruitment approach.

The recruitment of high potentials became an issue when companies became complicated enough to need executives beyond the owner and managers became resources that could be acquired from other companies. Professional recruitment first emerged in the U.S. railroad-building industry (Cappelli, 2008). However, it was not until the late 1940s that modern recruitment emerged, which was when the industry faced shortages in the supply of top management. In subsequent years, the main focus of human resources was on internal career paths and development (Kaufman, 2007). An increase in the uncertainty in the environment and in business planning changed the focus from internal toward external recruiting within various industries. The increase in foreign competition also made markets more volatile and led to shorter production cycles (Cappelli, 2008). As a consequence, employers focused more on external hiring of skillsets, as it was almost impossible to develop employees over time in a rapidly changing environment. External hiring practices were not only the consequences of a diminishing focus on the traditional internal development programs—they were also some of the causes. External hiring of employees caused retention problems. Collings and Mellahi (2009) argue that relying solely on internal development and sourcing of key talent becomes increasingly risky as careers are more and more characterized by inter-firm mobility and reduced identity with jobs and work settings. They conclude that companies should recognize

the importance of the external labor market in the talent management system. According to Sparrow (2007), this recognition of the importance of the external labor market also entailed a shift from vacancy-led recruitment toward recruitment that preempts open positions and creates a pool of available applicants. In recent years, passive candidates (not actively looking for other opportunities) are also increasingly targeted (Delany, 2007), a procedure known as talent raiding or poaching (Cappelli, 1999). Poaching seems to profit newer firms that want to enter markets with scarce human resources, more so than well-connected firms (Dineen & Soltis, 2011). In parallel, social networking sites have boomed in recent years, becoming a platform for recruiters as well (Trost, 2012). These sites might offer opportunities for recruiters to maintain a relationship with a potential—but passive—job candidate (Cappelli, 2001; Lievens & Harris, 2003). These changes are also reflected in the change in the organization of recruitment; companies both internalize the recruitment function for high potentials and build long-term strategic relationships with recruitment agencies (Hill, 2012; Larsen, 2011). This long-term focus allows companies to develop an in-depth understanding of the profiles of the potential candidates. Stahl et al. (2007) confirm the observation that high-performance companies follow this path; they first recruit the best people, and then find positions for them. Being ahead of the curve in the recruitment process ensures that a sufficiently large pool of high potentials is available.

Several researchers have provided theoretical models of the recruitment process (Allen, Van Scotter, & Otondo, 2004; Breaugh, 2010; Dineen & Soltis, 2011; Saks, 2005), though none of these models delivers an overall theory of recruitment and all the variables involved (Breaugh, 2013). Dineen and Soltis's (2011) three-stage framework (described earlier; see Figure 3) takes into account environmental factors as well as key stakeholders like recruiters. Targeting strategies are a core element in the first stage of the model.

Others have built theories that aim to link the contribution of recruitment—among other variables—to the development of human capability at work and/or the situations in which recruitment is a strategic alternative (e.g., Joyce, 2010; Tamkin, Giles, Campbell, & Hillage, 2004).

Throughout the recruitment literature, the importance of the core concept of attraction of the employee to the organization is emphasized (e.g., Joyce, 2010) and has been the topic of various literature reviews (e.g., Breaugh, 2008; Breaugh, Macan, & Grambow, 2008; Breaugh & Starke, 2000; Ployhart et al., 2006; Rynes & Cable, 2003), whereas the identification of adequate potential employees is covered less prominently. This may be because it has only been in the last two decades that recruitment has been changing from a profession with a focus on processing applications for open positions toward a profession that increasingly actively identifies and reaches out to passive potential applicants (Trost, 2012). Gallagher and O'Leary (2007) differentiate between two recruitment models: recruitment for high-skilled jobs with a highly personalized service and recruitment for low-skilled jobs with a more

the potential employee. In the planning phase, the qualitative and quantitative needs of the company or organizational unit over time should be elaborated. Within the overall business vision, the human resource department translates the business strategy and developments in the internal and external environment into future needs regarding human resources, planning recruiting and internal development accordingly. Future demand for human resources, as well as the internal and external supply of these, should be explored and a plan developed how to address potential gaps (Taylor, 2010). This quantitative and qualitative assessment can then be used as starting point for the discussion on strategic human resource needs (Trost, 2012). The techniques that can be used to forecast future need can be roughly categorized into three groups (Taylor, 2010):

- systematic techniques, such as time series analysis and work study (based on historical data). The assumption (and limitation) behind these techniques is that the environment is rather stable or that changes are cyclical and predictable;
- managerial (subjective) judgment; and
- inference of future need based on the budgeted cost.

The planning of future human resources is controversial, however; the capability of companies to forecast internal demand and external supply has been challenged by several authors. For example, Cappelli (2008) challenges the idea that a company can make a reliable forecast of the exact need for future groups of employees. He proposes instead a risk-distribution analysis of the consequences of over- and undersupply and an attempt to mitigate the largest risks. However, discontinuities in markets make it almost impossible to predict future trends (Mintzberg, 1994), as well as the impact these discontinuities may have on the company (Taylor, 2010). In the view of Mintzberg (1994), “‘very little, or nothing’ can be done, ‘other than to be prepared in a general way to react quickly once a discontinuity has occurred’” (p. 231). In an international context, language problems and potential lack of mobility of employees, as well as an inherent instability in the global environment, increases the planning problem (Taylor, 2010).

Several concepts have been developed to address the problem of forecasting. Dyer and Ericksen (2007) propose the concept of *workforce scalability*, which combines workforce alignment with workforce fluidity. *Workforce alignment* accepts that whatever configuration is currently adequate may not last long and can be changed if required in order to have “the right number of the right types of people in the right places at the right time doing the right things right” (Dyer & Ericksen, 2007, p. 268). Within this concept, regular realignment is necessary and driven by management and employees. Workforce scalability combines workforce alignment with *workforce fluidity*, an inspirational vision by management and a flexible attitude of the employees. Other proposed HR planning concepts (Taylor, 2010) include *micro-planning*, which concentrates on forecasting demand and supply of specific staff groups defined as problem areas and is time-limited (Bechet, 2008); *contingency*

planning, which “involves planning possible responses to a variety of possible potential environmental developments” (Taylor, 2010, p. 126); *skills planning*, which shifts away from planning for people toward planning for skills needed in the future (Yost & Plunkett, 2010); and *soft human resource planning*, which plans for future needed cultural and behavioral attitudes and behaviors (Torrington et al., 2008).

Once the future goals regarding the targeted culture of the company, the need for groups of employees, and gaps in internal supply have been identified, the company has to decide on the types of individuals (in terms of skillsets, training, experience, sociodemographic variables, attitudes, personalities, and cultural backgrounds) they would prefer to hire externally. National and international statistics such as population density, unemployment rates, and available skill levels can be used to assess external supply of certain employee groups (Taylor, 2010). Labor market characteristics have been associated with the recruiting practices that a company uses; the availability of a sufficient supply of skilled labor potentially constrains the ability of a company to attract and select employees (Zheng & Hu, 2008). Additional information about the labor market and a company’s position in the market can be found in benchmark reports, which describe the attractiveness of a company in relation to its competitors (Shapiro, 2010).

Timing of the engagement of companies in recruitment plays an important role in the targeting decision (Rynes & Cable, 2003), as certain high-potential applicants, such as college graduates, operate in distinct time circles (Dineen & Soltis, 2011). Some researchers (Trost, 2012) note that a company may find value in entering the recruitment process at an early stage (e.g., campus recruitment).

In the subsequent contact phase noted by Spickschen (2005), two related goals are pursued: ascertaining the number and quality of persons that are hired and ensuring that underqualified applicants/applicants who are not valid do not enter the recruiting process. The percentage of valid applicants in the total population of applicants is known as the basic rate. The better the basic rate is, the lower the probability is of a wrong hiring decision. According to Weuster (2012), supporting adequate targeting and employer branding leads to an increase in the basic rate and, therefore, a decrease in hiring mistakes. Targeting focuses on the contact phase of the recruitment process while relying on the quantitative and qualitative needs analysis established during the planning phase.

In Spickschen’s (2005) selection and mating and binding phases, people are assessed further and the company and employee decide on how they want to proceed. Silzer and Church (2010) describe that in the assessment of employees and applicants, current performance and potential are often mistaken; past performance and current skills and abilities are confused with the potential effectiveness in the future. However, the assessment of potential versus performance has a long history—in the 1950s, companies such as Proctor & Gamble tried to assess the potential of new recruits from college by looking at their family background and

activities such as social clubs and fraternities (Cappelli, 2008). Trost (2012) describes three dimensions that can be used to assess the potential of a candidate: 1) a learning speed and capability dimension, 2) a motivational dimension with a focus on self-discipline and the determination to succeed, 3) and an emotional dimension. Silzer and Church highlight the importance of past performance in a variety of roles and business situations as a predictor for potential future effectiveness. In doing so, the past experience has to be compared to the future business needs of a company. Other elements that are deemed important by Silzer and Church are leadership competencies, flexibility, motivation, learning ability, and mobility. In their survey of 20 large U.S.-based multinational companies from a variety of industries (fast-moving consumer goods [FMCG], consultancies, pharmaceutical companies, energy suppliers, and industrial goods) they found as well that 20% of the organizations considered the fit between a high potential's personality and the values and culture of an organization in the assessment of the potential candidate.

Attraction between potential and current employees and organizations has been extensively studied in the person-organization (P-O) fit literature (Sutarjo, 2011), which is part of the person-environment (P-E) fit literature. It is concerned with the compatibility of people and organizations and the fundamental characteristics they have in common (Kristof-Brown et al., 2005). It describes the match between a person's goals, values, and personality with the culture, values, and norms of an organization (e.g., Sutarjo, 2011; van Vianen et al., 2007), though fit can also be complementary. Biswas and Bhatnagar (2013) found evidence that it was essential to have an alignment between employee behavior and the values of an organization's brand. Yaniv and Farkas (2005) found evidence that P-O fit may play a significant role in correcting the mismatch between the corporate brand values perceived by customers and those declared by management. It is also regarded as the main driver for the development of employment relationships (Cable & Yu, 2007).

Recruitment and selection practices are the initial points of contact between an organization and a potential employee, during which both develop a perception about the attractiveness of the other. Dineen, Ash, and Noe (2002) and Dineen, Ling, Ash, and DelVecchio (2007) found that providing individualized feedback about P-O fit is associated with increased attraction to an organization, higher recall of Web site messages, and more time spent on the company Web site, creating a stronger association if an applicant agrees with the P-O fit feedback. The beliefs that a company and potential applicant generate about each other during this process depend on the richness and credibility of the media used. One important factor that defines media richness is the personal focus of the message—the ability to target the message to the potential employee. Cable and Yu (2007) assert that: “messages and information must be tailored to meet the needs and current context of intended recipients” (p. 159).

There is also ample literature on the procedures used to assess the fit between an organization and its potential employees and the validity of those procedures. Almost all

employers use applicant screening tools later in the recruitment and selection process, but there are considerable differences in the extent to which employers employ applicant screening (Wilk & Cappelli, 2003). Assessment of fit is addressed through self-selection of future employees or through selection practices such as face-to-face interviews, work and performance tests, personality tests, and assessment centers (Rynes & Cable, 2003; Wilk & Cappelli, 2003). Recruitment interviews are described as having low predictive validity for the assessment of fit (Cable & Yu, 2007; Heneman & Judge, 2003; Sutarjo, 2011), whereas performance and work tests have a high validity and credibility (Cable & Yu, 2007). Personality tests have increasingly been used as an assessment method for hiring employees (Heneman & Judge, 2003), and the validity for some personality tests that cover items such as conscientiousness, extraversion, and emotional stability has been supported by research (Cable & Yu, 2007). Therefore, a personality test seems to be a more appropriate instrument for the identification of high potentials, especially because the personality construct of “conscientiousness” has been associated with a strong work ethic and job performance (Huang & Cappelli, 2010). In the context of high potentials, conscientiousness seems to be an important attribute of potential employees since high potentials work in management situations where their efforts cannot often be readily and unambiguously measured.

Dineen and Williamson (2012) found that the use of screening-oriented messages on Web-based job advertisements results in a higher applicant pool quality. Thus, it seems important that the skills, experience, values, behavior, wishes, and goals of potential employees are evaluated early in the recruitment process to identify and target the right employees and elaborate an adequate pool of potential employees. An example of a company with a clear recruitment strategy that focuses on fit with the values of the company is Southwest Airlines. In addition to technological skills and knowledge, Southwest recruits its applicants for the fit with the company’s culture and screens them for a desire to work with people, an ability to work as part of a team, problem-solving skills, and customer service attitude (Rhoades, 2006). Sometimes, however, P-O fit is not the goal. External recruiting can be the strategy of choice when senior management wants to change the culture of the company; in these cases, the hiring focus is on specific traits that do not fit with the current culture of the company (Cappelli, 2008).

2.5.3 *Recruitment Methods*

Two hypotheses—the individual difference hypothesis (Schwab, 1982; Taylor & Schmidt, 1983) and the realism hypothesis (Hill, 1970; Wanous, 1980)—aim to explain why recruitment methods influence pre- and post-hire outcomes have received the most attention (Breugh, 2013). The *individual difference hypothesis* presumes that different recruitment methods reach individuals who differ on personal attributes that are relevant to recruitment. Breugh (2013) describes the potential differences between individuals as those who apply

directly to the company without knowing if an open position exists and potential applicants who are recruited through paper ads. Differences in outcomes can be potentially explained by how information is processed. The Elaboration Likelihood Model (ELM) suggests that information that is processed through a more peripheral route is given less attention and is passively processed (Petty & Cacioppo, 1986). Job advertisements and Web pages are probably processed only peripherally, whereas active personal recruitment methods can be used to reach persons who would not respond to job advertisements and Web ads (Jones, Schultz, & Chapman, 2006; Rafaeli, 2006).

The *realism hypothesis* proposes that recruitment through certain channels affects the accuracy of the perception of the requirements of the job and organization (e.g., in the case of recruitment through employee referrals), which yields differences in recruitment outcomes (Wiley, 2011). In a comparison of five different recruitment methods—direct applicants, referrals, job fairs, campus recruitment, and job ads—Breaugh, Greising, Taggart, and Chen (2003) found that applicants who were referred to the company by current employees or who applied directly had a higher probability of receiving a job offer and being hired. Unsurprisingly, campus recruits had less experience than applicants from other recruitment sources. The offered job opportunity remains an important contextual factor and has been among the strongest predictors of recruitment outcomes (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005).

In recruitment, three different sets of communication instruments can be used, which can be classified as intermediary-based recruitment, personal communication, and multimedia communication. *Intermediary-based recruitment* uses service organizations such as headhunters and/or government job centers to identify and attract potential candidates for open positions in companies as well as to manage talent pools. Recruitment through employee referrals also uses the company's current and former employees as intermediaries. *Personal communication* includes such activities as personal presence at job fairs and talks at business schools. *Multimedia communication* targets channels such as magazine advertisements and social media. Personal communication and intermediary recruitment can be considered targeted recruitment (Yancey et al., 2006), whereas multimedia communication can be undifferentiated as well as targeted—the social media tools that have emerged in the last decade allow for adapting of the message as well as the population that actually receives the message (Rai & Kothari, 2008). Targeted recruitment can include attracting individuals from minority groups through targeted messages, targeted campus recruitment, and targeted job fairs (Avery & McKay, 2006) as well as recruitment of volunteers (Randle & Dolnicar, 2009; Wymer, 2002). Ryan and Delaney (2010) envision a broader use of targeted recruitment as a more targeted talent pool would be cost saving in the long run.

Recruitment through intermediaries such as headhunters is mainly used in the recruitment of specialists and senior managers (Joyce, 2010). In these cases, acquiring a sufficient talent pool

and the time and effort involved with the management of inappropriate employment applicants is outsourced to the intermediary company. In some markets, headhunters and employers have built long-term strategic relationships, though Taylor (2010) asserts that conflict of interest tends to cause problems. The pharmaceutical market is an example in which intermediaries have built a strong presence and expertise in recruiting certain target groups such as pharmaceutical sales representatives or individuals for clinical trials. Reasons for engaging a headhunter may range from discretion to competency and/or experience in a specialized field, lack of internal resources, and the possibility of shifting responsibility in case of failure (Spickschen, 2005).

Recruitment through current employees is perceived by employers as the best option for recruiting individuals with the desired personal traits (Breagh, 2009). Employee referral is a beneficial route for employers in practice, as Castilla (2005) found that initial job performance of employees recruited through referrals was better than that of employees recruited through other channels. However, Yakubovich and Lup (2006) found differences in pre-hire outcomes between applicants recommended by high-performing employees and referrals from lower-performing employees. They cite four main reasons that potentially explain the superiority of employee referral over other recruitment methods.

- So as not to jeopardize their reputations, current employees will prescreen potential applicants and only refer those whom they think will be good applicants.
- Once people who were referred by current employees are hired, the probability is high that these employees will support the new hires.
- Employee referrals are effective in reaching passive candidates with the right skills and set of values.
- Employees recruited through current employees can make more informed decisions, as they probably receive more realistic information about the job and company.

Personal communication is another recruitment practice that has attracted interest in literature. It has the advantage of establishing direct contact with the target population, which may result in a higher level of commitment on the part of the employee (Spickschen, 2005). A prerequisite of effective personal communication is knowledge of the long-term qualitative and quantitative needs of the subpopulations of human resources within the company and an outside market knowledge of where target groups can be found and how they can be attracted to the company. Typical examples of personal communication style activities may be found in the recruitment of high-potential students based on company cooperation with universities or business schools. In college campus recruiting, which is also referred to as graduate recruitment, students are preferably contacted early and followed over time to be recruited once they finalize their studies (Trost, 2012). In addition to the traditional work placements and internships, companies are offering several other personal recruiting activities, such as job fairs, employer presentations on topics of interest, the establishment of relationships with

faculty, and regular company visitation by senior executives (Younger, Smallwood, & Ulrich, 2007). These activities can be combined with non-personal tools such as job ads and sponsoring. Schamberger (2006) emphasizes the importance of internships in the recruitment of high potentials. Competition is high and increasing, with most graduate recruiters looking for a similar set of soft skills such as teamwork, communication, business attitude, and results orientation, irrespective of the studied topic (IRS, 2003). For example, Shell reacted and focused its efforts on fewer colleges and universities (reducing the overall number from 84 to 26) based on an analysis of the data in its applicant tracking system regarding the offer acceptance rate of the group of higher-quality applicants (Mullich, 2004). Collins (2007) found that actions prior to a campus visit, such as general and detailed recruitment ads, sponsoring, and faculty endorsement, improved recruitment outcomes. Some companies also use talent ambassadors—students under contract to a company or former interns on campus—as points of contact as well as advisors for talent recruitment questions on the company (Trost, 2012). Within the setting of campus recruitment, Internet-based advertising, recruitment of former interns, recruitment fairs, and employer presentations were rated as the most effective instruments (Rankin, 2008).

Another field of personal communication recruiting that builds on a targeting approach is talent scouting, an activity in which talented people (usually young) are observed undercover while pursuing an activity to the organization (Trost, 2012). This is a common practice in the arts and in sports, with large soccer clubs having their own talent scout departments, but it is currently not widely used in business settings. Van den Brink (2011) studied talent scouting in the context of recruitment of female professors in academic medicine and found poaching to be more effective than other recruitment methods; reasons for talent scouting were “more effective than the regular open appointment procedure. Interviewees cited ‘getting in quickly,’ ‘convoluted procedures’ and ‘being ahead of the competition’” (pp. 2035–2036).

Multimedia communication uses channels such as advertisements in magazines and online recruiting for recruitment of new employees. Prior to 2010, most research was focused on recruitment through offline media, but the focus has now shifted to the impact of online advertisement and branding measures (Ledgergerber, 2011; Meyer-Ferreira, 2010). Online advertisement is a mixture of offerings on the company’s homepage, advertisements in online publications (e.g., professional technical magazines, which target potential employees with certain specific skillsets), online job exchange pages (e.g., Monster) and paid hyperlinks (e.g., on pages of online search engines), and frequently visited Web sites of the target group. A targeted variant of Internet communication is niche online job boards, such as the German sites juve.de for legal personnel and wuv.de for marketing and sales personnel (Salmen, 2012). Another special targeted variant of these online activities is the talent pool, in which potentially interesting candidates are offered information, contacts, support, and access to databases. The objective of talent pools is to maintain contact with a group of potentially

interesting candidates (Spickschen, 2005). The advantages of multimedia communication are the relative low cost and broad reach of the instruments (such as online recruitment and offline advertisements). With the shift from classical magazine advertisements toward online instruments, targeting becomes more important as the ease of response through the Internet can potentially trigger a large number of applications from unsuitable candidates (Taylor, 2010).

Although some research suggests that online advertisements do not deliver a better shortlist of appropriate applicants (Parry & Tyson, 2008), the development of software for application acknowledgements, initial screening tools, and talent pool management tools increases the usefulness of online recruitment and is able to mitigate the disadvantage of receiving a large number of unsuitable candidates (Taylor, 2010).

The emergence of the Internet and social networks is a topic that has grown significantly in importance for recruitment professionals over the last decades. The use of job boards, applicant tracking systems, e-recruiting through the Internet and social networks, and Internet-based assessment of applicants has innovated recruitment (Lievens & Harris, 2003). Consequently, a field in the contemporary HR literature that covers professional online social networks such as LinkedIn, Xing, and Web 2.0 logic has been developing (Salmen, 2012). Sophisticated databases with detailed profiles are now readily accessible, which allows companies to monitor and directly approach target populations online. Ledergerber (2011) notes several areas that have changed with the introduction and application of Web 2.0, which allows people to exchange information with a higher frequency to a targeted population, enabling potential applicants and companies to judge information they deem relevant faster and easier. Individuals and/or groups on the Web can—independently of time and place—rate information, products, and companies; topics and themes are set and evaluated—sometimes based on incomplete information—very rapidly. Networks also allow information to be disseminated rapidly. The current Web 2.0-induced changes in the environment have consequences for the future of company recruitment practices beyond employer branding. Social networks allow companies to build their own groups and stimulate potential employees (e.g., skilled specialists) to build groups of followers on the Internet.

With the emergence of the Internet and Web 2.0, an imbalance in information is emerging. A broad spectrum of information from a variety of sources is accessible for potential employees to learn about a company. In particular, younger potential employees use online tools more than other prospective employees to learn about employers (Arnold, 2012). Several online platforms, such as Topjob, GreatplaceDE, and Universum, have emerged on which employees or former employees can review a company (Arnold, 2012). The potentially huge extension of the network also makes it increasingly difficult for a company to discuss the content of company policies and activities with all participants directly.

The impact of different recruitment practices on company performance may change significantly in the future. With the emergence of Web 2.0 instruments, potential employees have the tools to find detailed profiles of companies in which they are interested (Ledergerber, 2011). Ployhart et al. (2006) indicate that applicants with superior knowledge about a company usually outperform those with less prior knowledge in job performance, turnover, and absenteeism rates. On the other hand, companies often still know little about the prospective employees they target though they use e-recruiting tools to promote themselves. Therefore, as Boudreau and Jesuthasan (2011) note, it could be potentially beneficial for a company to collect information and better identify, understand, and target potential employees the same way it analyzes and targets customers as part of consumer and service marketing. The ability of an organization to utilize such pre-interview information has also been associated with an increased economic value of recruiting (Boudreau & Rynes, 1985). Although Drazin and Rao (2002) found that competitor recruitment was used more by young and poorly connected companies in their research on mutual fund companies, Trost (2012) proposes that all companies set up a competitive intelligence system—similar to the monitoring of competition in classical marketing—that tracks the most attractive candidates at their competition.

2.5.4 Recruitment and Performance

The impact of recruitment on individual and company performance has been the subject of several studies (Orlitzky, 2007). The output of the company is directly influenced by the quality of the employees it is able to attract, as evidenced by Connerley, Carlson, and Mecham's 2003 study of 391 college graduates from an American university who applied for a position. In their study, Connerly et al. found a direct relationship between the quality of the applicants—as measured by their grade point average (GPA)—and future job performance. Cappelli and Huang (2006) found that screening for work ethic increased productivity and reduced monitoring costs. Several theoretical models aim to explain the potential influence of recruitment on total company performance. These models can be categorized as utility models and resource based view (RBV) models. Based on decision theory, utility models, or utility analysis, estimate the extent to which recruitment activities and practices might influence the economic performance of an organization. Utility analysis “generally refers to frameworks that help decision makers analyze in a systematic manner the subjective value, or expected utility of alternative outcomes associated with a decision” (Cascio & Boudreau, 2010, p. 196). *RBV models* emphasize the importance for an organization to design and build a valuable set of resources in a unique architecture to ensure the success of a company. According to Orlitzky (2007), the resource-based view of a company allows a more systematic approach to the assessment of why and under which circumstances recruitment might contribute to the overall performance of a company. Within the strategy literature, the focus has changed away

from a focus on relative competitive power and external positioning in the industry, to the perception that internal resources can be viewed as crucial to sustained effectiveness (Wright et al., 2005). A related strand of literature, the *knowledge-based view* of the firm, emphasizes the importance of the acquisition and development of employees' knowledge base of the company (Grant, 1996).

In the HRM literature, the dominant framework used to explain individual future performance is the Ability->Motivation-Opportunity (AMO) framework from Boxall and Purcell (2003). The AMO logic has been used as early as 1985 by Katz, Kochan, and Weber (Gerhart, 2007). The literature assumes a causal relationship between HRM practices and organizational performance through the responses of employees (Macky & Boxall, 2007). Although Boxall and Purcell (2003) acknowledge that the exact relationship between the variables has not been established, there is a consensus in the literature that these three elements have an impact on overall performance. Hence, these variables could be potential valuable segmentation and targeting criteria. Although motivation is a key variable in the translation of HR practices into performance (Huselid, 1995; Subramoney, 2009), the literature on motivation theory has been largely concerned with explaining task performance, saying little about employee retention and turnover (Collings & Mellahi, 2009).

Retention and turnover are partly driven by *organizational commitment*, which can be described as the relative strength of an individual's identification with and involvement in an organization as well as his or her willingness to activate considerable output on behalf of an organization (Buciuniene & Skudiene, 2008). Collings and Mellahi (2009) posit that organizational commitment strengthens the positive association between talent management and organizational performance. Similar, Osborne and Cowen (2002) see a culture of commitment as a crucial basis for high performance. Three components of organizational commitment have been defined (Buciuniene & Skudiene, 2008): affective commitment (attachment to and involvement in the organization); continuance commitment (awareness of the cost of leaving the organization); and normative commitment (feeling of obligation to remain with the organization). These elements are associated with the identification of an individual with the same culture and values as the company (Collings & Mellahi, 2009). The culture of the company and the attributes it emphasizes in its communication with current and potential employees are defined in the company brand and employee value proposition.

2.5.5 *The Company as a Brand and the Employee Value Proposition*

The company in the context of recruitment has increasingly become a topic of interest in the literature. Various aspects of the company have been examined, such as company knowledge (Cable & Turban, 2001), image of the organization (Chapman, Uggerslev, Carroll, Piasentin, & Jones et al., 2005), and company personality (Slaughter, Zickar, Highhouse, & Mohr, 2004). With a strong employer brand, an organization has the ability to influence the choice of

an applicant for an employer and job offering (Collins & Han, 2004). Ryan and Delaney (2010) posit that the conjunction of the company's familiarity, reputation, and image with the potential applicants' values will determine attraction beyond the instrumental features of a job such as location and pay. Although familiarity with a company is a prerequisite for attraction, familiarity beyond name recognition results in both positive and negative attitudes (Brooks & Highhouse, 2006; Brooks, Highhouse, Russell, & Mohr, 2003). Highhouse, Thornbury, and Little (2007) suggest that a potential applicant's self-image is an influence if whether knowledge of the employer translates into company attraction. Chapman et al. (2005) found six antecedent classes of attributes that influence attraction: perception of fit, the recruitment process from an applicant's perspective, instrumental attributes (job and organizational), perceived probability of hiring success, recruiter characteristics, and alternatives to the offer. In addition, the research of Carless and Winter (2007) suggests that a potential applicant's perception of work-life balance influences the attractiveness of a company, and Aiman-Smith, Bauer, and Cable (2001) found that the ecological reputation of a company influences attraction more than layoff policy, career opportunities, and pay. The process of employer preference decisions can be described as a search process with a high level of uncertainty in which not all relevant information is available. The decision maker is not only focused on maximizing the utility (rational), but also on other subjective or psychological aspects (e.g., expectations, emotions) (Rankin, 2000). In addition, the environment of the decision maker can influence the decision (training, education, social environment, and culture), as can personality (e.g., level of risk awareness and aversion). According to consumer marketing research, search motivation and prior knowledge of the product also influence the decision process (Maurer & Liu, 2007). Prior knowledge of the image of the company from the perspective of the high potential seems important, as high potentials tend to look for specific employer brands (Grobe, 2003). However, Schamberger (2006) found that the content and development potential of a job has a stronger impact on the level of preference of the high potential than the company's image. In addition to influencing the attractiveness of an organization, the antecedents found by Chapman et al. (2005) were also associated with job pursuit intentions.

In the literature, employer branding is described as "the profiling and positioning of the company as a potential employer in the relevant markets, with the objective of establishing an image as an attractive employer for internal and external target groups" (Beck, 2008, p. 28). The employer brand consists of two categories of factors: the products and services of the company and the branch it is in (size and geographical scope also influence the brand) and the employment package that the company offers to potential employees. Included in this category are the development options, the wage level, and the scope of the offered position. Some features of jobs and organization may be universally attractive to potential employees (Breaugh et al., 2008), whereas others are only attractive to certain groups of potential

employees. The different needs and interests of these groups of potential employees can be addressed through differentiated branding, thus establishing a perceived fit between these needs and interests and the organization (Lievens & Highhouse, 2003; Rafaeli, 2006). The literature concerned with the branding of the company, for which a potential employee has preferred and less preferred choices, each of which could fulfill a need in these potential employees, is known as the employer-of-choice literature (Rankin, 2000). Within this literature stream, the benefits sought in a company take an important place in the choices of potential employees.

As early as the 1980s, employees sought to fulfill needs other than financial ones through work (Warr, 1987), such as: opportunities for control, opportunities for skill use, goal and task demands, variety, environmental clarity, availability of money, physical security, opportunity for interpersonal contact, and valued social position. Through a literature review on the concept of meaningful work, Chalofsky (2003) demonstrates that people perceive various elements such as close working relationships, purpose of the position, fulfillment of the job, job autonomy, and learning as more important than financial rewards. All of these different needs and benefits that employees seek have the potential to influence their employer preference.

Seeking benefits implies that choices/decisions have to be made. Various models that attempt to explain the decision processes and preferences of potential employees have been developed and tested (Petkovic, 2008), and a significant amount of empirical research focused on better understanding the specific needs and expectations of high potentials exists (Garavan & Morley, 1997; Grobe, 2003; Schamberger, 2006; Thom & Friedli, 2003; Uren, 2012). Schamberger (2006) found that certain aspects of the content of an opportunity and company, such as international orientation, have more weight in their decision making, whereas job security, working hours, and relocation are less important. He categorizes the high potentials in three groups with different needs. The first group is focused on self-development with little interest in social connections; the second pursues both private and professional goals with a high intensity, and the third values social connections very highly and is not interested in changes in their private life. The groups differ in their preference of information sources and application behavior. For example, the second group has a preference for summer academies, seminars, and professional publications as information sources, and the first group applies, on average, one semester earlier for a job.

Consultancies have analyzed the needs and expectations as well. Uren (2012) identified six high-potential segments based on interests and needs (the findings did not match robust demographic-defined groups through age, ethnicity, and gender). The identified segments were brand enthusiasts focused on company reputation; career ladderists focused on fast promotion; connectors focused on social relationships at work; the nurtured, focused on tailored development by the company; opportunity seekers focused on stretched assignments

and challenges; and planners, who perceive their careers as guides for the rest of their lives. She also found that expectations differ between what high potentials want and what organizations think they want—an aligned culture with employee values, reputation, and strategy were considered important by the high potentials but not by the organizations. A meta-analysis from Chapman et al. (2005) suggests additional differences between applicants and non-applicants (passive applicants) in how these different variables are weighted in the recruitment process: applicants were more likely to weight job characteristics such as “compensation and advancement” and pay higher in their evaluation of job-organization attractiveness. This seems relevant for the recruitment of high potentials by various researchers (Stahl et al., 2007; Trost, 2012), who suggest that the recruitment of high potentials increasingly resembles a supply-driven market with passive applicants. Hollands and Chatterton (2003) posit that branding is especially important in markets that are saturated, differentiating an offer from a competitor.

In current discussions on employer branding and recruitment, two major trends have been identified that will have a strong impact on the importance of human resource marketing and the design of the company brand. The first trend focuses on the changing age distribution of the working population, which will slowly shift the power in the recruitment market from a demand-driven market toward a market in which the supply side is more powerful (Stahl et al., 2007). According to Porter’s (2008) five forces model, this changes the structure of the recruitment market. Porter’s model predicts that an increase in the bargaining power of the applicants (the consumers) forces the company (supplier) to reassess the marketplace it is in and potentially adapt new strategies. Trost (2012) observes that in the last few decades, the recruitment market has been adapting in the sense that recruiters from companies are actively approaching potential valuable candidates instead of processing candidates who approach them. Salmen (2012) speaks about a paradigm shift caused by the change in power balance and the increasing negotiation power of the employees; young talents now expect companies to apply to them. Given the importance of high potentials for the company and the shrinking local supply of this group (Dobbs et al., 2012), companies will be forced to invest more (or become more efficient) to attract a sufficient number of high potentials. Hence, companies have to develop an in-depth understanding, not only of the company’s future needs, but also of the potential future employees’ needs, as well as how and where the company can reach them and how it can tailor its messages to them. This seems especially important as high potentials are normally well informed about a potential employer, and the job search process can be regarded as a high-involvement process (Hermann, Kraneis, & Rennhak, 2006). The second broad trend in literature is the recent developments in social media (e.g., Twitter, Facebook, and LinkedIn) and the consequences for targeted employer branding and recruitment (Arnold, 2012).

2.5.6 Target Population Insights

Although employee segmentation as part of human resources “has existed in one form or another since the first boss hired the first worker” (Roberts, 2012, p. 27), it has not been discussed extensively in the literature. Similar to segmentation literature in the mainstream marketing domain, academic discussion in HR marketing has mainly focused on segmentation bases and methods (Schamberger, 2006).

Segmentation literature that goes beyond the definition of segmentation bases in HR has emerged in the recruitment of volunteers (Randle & Dolnicar, 2009), in internal employee segmentation (Roberts, 2012; Uren, 2012), and in some selected HR fields such as the targeting of medical doctors in rural areas (Hemphill & Kulik, 2009) and the targeting of minorities (Avery & McKay, 2006). Ryan and Delaney (2010) envision the possibility of sourcing for talent from other pools in the future.

Studies in the nonprofit sector have shown that segments of volunteers can be targeted with distinctive marketing mixes (Wymer, 2002). Segmentation of volunteers has been pursued by nonprofit organizations with various methods ranging from a simple grouping based on previous volunteer work to a sophisticated analysis of differences between volunteers and control groups (Randle & Dolnicar, 2009). Variables used in the segmentation of volunteers cover gender, employment level, and education. Randle and Dolnicar (2009) found sociodemographic variables to be good predictors for hours contributed to voluntary work, though they note that further research on the attitudes of these volunteers could add to the tools used. They conclude that organizations can improve recruitment and reduce costs by targeting certain defined volunteer segments.

Within the HR management literature, there is a discussion about segmentation as a tool to customize offerings for current employees (Cantrell & Smith, 2010; Roberts, 2012; Uren, 2012) based on different needs and shared preferences. Cardy, Miller, and Ellis (2007) propose segmenting internal employees based on the value added to the company and distribute the investments of the company to these different segments of employees accordingly. Higgs (2004) suggests segmenting the labor market into four segments based on two dimensions—rewards and culture—in which rewards are the wages companies are prepared to pay, and culture is the way employees are treated. A company should position itself depending on the targeted segment. The four segments can be related to four generic employer brands: employer of churn (low pay, employees not well treated); employer of values (low pay, but employees well treated), employer of cash (high reward, but employees not well treated) and the employer of choice (high pay and people well treated). Taylor (2010) adds to the model with the development of a finer segmentation within Higgs’s employer of choice segment, based on the dimensions of labor market tightness and career opportunities in the company. The result is a matrix of four types of employers: (a) developers (tight market with career opportunities), (b) high payers (tight market with few career opportunities), (c)

involvers (loose labor market and few career opportunities), and (d) selectors (loose labor market and career opportunities).

Ferguson and Brohaugh (2009) propose the development of business to employee (B2E) marketing strategies:

B2E marketers can take a page from consumer loyalty marketing by building a performance database and mining it to build a talent segmentation matrix. Just as customer segmentation allows you to squeeze maximum efficiency out of your marketing budget, so can employee segmentation deliver maximum benefit from your bonus compensation and recognition budget. (p. 360)

According to Cantrell and Smith (2010), “advances in business intelligence and analytics have spurred a revolution in how businesses are now segmenting their workforces” (p. 41). Gardner, Wolf, and McGranahan (2011) also observe that companies and HR departments have started to profit from what they define as HR analytics. Senior business and HR leaders now have access to new analytic instruments for analyzing the relationship between people and performance through recent technological advances. Hemphill and Kulik (2011) assert that segmentation is only possible if a company has knowledge about its customers and understands their needs and expectations. The challenge for companies is the identification of distinct segments that can be used to recruit employees (McDivitt, 2003).

Hemphill and Kulik (2011) developed a typology of segments based on factors such as job offering, family support, and organizational factors, to attract factory meat workers and medical doctors in Australia’s rural areas. Although they found that using segmentation in the recruitment strategy was useful in labor markets in which there are few potential applicants, they assert that there is a paucity of literature on the identification of the characteristics of segments in other labor markets.

Several demographic, psychographic, and other variables have been associated with improved performance and could therefore potentially be attractive to use as segmentation variables. Cantrell and Smith (2010) suggest the following segmentation schemes for internal segmentation: demographic variables; employee relationship; geography; work roles; value of the employee; psychographic variables such as personality, values, and behavior; health; and work relationship (such as contractor, business partner, part-time employment, and temporary employment).

2.5.7 Segmentation Bases

2.5.7.1 Demographic Variables

The importance of themes such as job satisfaction, authority, and health can vary depending on demographic variables such as race and gender. (Cantrell & Smith, 2010). The influence of different variables such as race and gender on individual, team, and company performance,

however, is controversial. Desvaux, Devillar-Hoellinger, and Baumgarten (2007) argue that a more diverse employee population, together with a more demographically diverse management (e.g., a mix of genders), increases the overall performance of the company, whereas Schamberger (2006) found that age, gender, and membership in a political party and/or student organization have a low correlation to student achievement potential. Bär, Niessen, and Ruenzi (2007) found that age did not influence team performance but that differences in social class and gender within teams had a negative impact on team productivity. Despite the controversy, most companies use these variables to target their messages to internal and potential employees. For example, Campbell's Soup uses generation-based segmentation to target its messages to the needs of different generation-based segments (Cheese, Thomas, & Craig, 2008).

Sociodemographic segmentation approaches have a long tradition in the recruitment setting, but it is only in the last few decades that more systematic recruitment approaches have emerged (Cantrell & Smith, 2010). Although the influence of gender and other demographic variables on performance in companies has been discussed in literature extensively for decades, there is a paucity of academic segmentation and targeting literature based on demographic variables. A systematic analysis of demographic segmentation approaches is not available, though Cantrell and Smith (2010) have described several examples of successful segmentation and targeting projects.

2.5.7.2 Employee Relationship

The employee relationship can be described with employee attributes such as education level, tenure, and professional stage of an employee (Cantrell & Smith, 2010). This topic has recently received increased attention in the literature. With emerging or eminent gaps in the availability of certain professions and competencies like technical skills, companies have started to target specific programs toward older, more experienced employees (Dineen & Soltis, 2011). The focus is on the retention of current employees, however, and less on the recruitment of these older, more experienced employees. A specific stream of literature regarding employee relationship segmentation and targeting is university and business school marketing. This literature stream, which focuses on the use of specific instruments (e.g., college recruitment fairs) with this population, has gained broad coverage (Breugh, 2013; Schamberger, 2006; Trost, 2012). It has been shown that companies can manage their talent pools by analyzing their applicant tracking system and targeting certain universities and business schools (Mullich, 2004).

2.5.7.3 Geography and Culture

The significance of geography and culture in the management of diversity in a company seems to be increasing as multinational or global companies compete for similar, limited high-

potential pools (Palmisano, 2006). International HR functions are also changing their focus from the management of expatriates to the recruitment and management of an international group of employees, thus facilitating the globalization process (Sparrow, 2007) with a workforce that is increasingly getting more geographically mobile (Bartlett & McLean, 2006).

Hofstede (2001) found that there are substantial differences between cultures regarding the attitudes and expectations toward the employer and job offering. The impact of diversity on performance is discussed controversially, however. Richard, Barnett, Dwyer, and Chadwick (2004) found diversity to be related to poorer outcomes, and others (e.g., Miroshnik, 2002) found evidence that diversity in workgroups can improve effectiveness. Horwitz (2005) emphasizes the importance of understanding the effects of different personal characteristics on team performance.

Although globalization has increased the interest in cultural differences and characteristics that potentially can influence the performance of companies (Hofstede, 2001), limited literature is available on the segmentation and targeting processes using this segmentation base. One problem is that robust external labor market data are often not readily available (Taylor, 2010). Another problem is that information is often lacking regarding the information processing strategies and needs of applicants (Ryan & Delaney, 2010). Culture can have a direct influence on recruitment criteria, methods, and practices. For example, in recruitment in the United States, future job performance is emphasized, whereas in collectivist-oriented countries, relationships and networks are more important (De Cieri, 2007). The preference for certain recruitment channels is also tied to culture (Aycan, 2005). Baack and Sing (2007) showed that applicants prefer Web sites that are culturally adapted, and Ryan and Delaney (2010) describe how family and friends in Latin America are much more important as a recruitment channel than they are in Europe. Research finds that showing diverse groups of individuals in recruitment advertisements influences the attraction of an applicant to a company (Avery, Hernandez, & Hebl, 2004).

2.5.7.4 Skillsets and Education

Segmentation and targeting based on required skillsets is common, with certain recruiting agencies specializing on specific functions or skills. One widely used practice is the targeting of specific universities/business schools by companies (Trost, 2012). Naturally, the required skillsets differs based on the situation, function, and industry.

These segmentation approaches are common in cases in which the company needs employees with certain educational backgrounds, subject expertise, or experience and a differentiated advertising approach can be used (operational), normally without adapting the employer brand (strategic) (Schamberger, 2006; Stickel, 1995). Although segmentation based on qualifications is common (Cantrell & Smith, 2010), the level of education is not a real differentiator in the case of high potentials, as high potentials are expected to have a higher

level of education. The focus within a company on high potentials as a group has also been described as a segmentation and targeting approach for identifying a group based on (potential) value added and providing those employees with special programs (Roberts, 2012).

2.5.7.5 Benefit, Lifestyle, and Psychographic Segmentation

Several studies have found that motives that drive performance, as well as personal objectives, may have a significant influence on occupational behavior and success (e.g. Adele-Brehm & Stief, 2004; Schamberger, 2006). Sloan et al. (2003) found several leadership competencies, such as openness to experience, perspective-taking, emotional stability, and cultural adaptability, to contribute to the overall performance of leaders in global companies. Tseng and Lee (2011), in a study in the high-tech industry, found personality characteristics such as competitive attitude, high ambition, and value commitment, as well as a company culture focused on innovation, to be associated with higher task performance. There is also evidence that the decision to apply for an opportunity in a company is predetermined by an individual's attitudes and beliefs (see Ajzen's, 1991, theory of planned behavior, which states that a person's behavior is a consequence of his or her attitudes and behavioral intentions). Personal values have been shown to strongly influence one's choice of occupation as well as the success of an employee in a role (Holbeche, 2004; Miller & Skidmore, 2004).

Segmentation approaches that use variables such as career and development expectations can be classified as benefit segmentation. Contrary to lifestyle segmentation, the perceived benefits sought by the potential employee are the focal point of the segmentation. In the lifestyle segmentation approach, the basic values and their translation into attitudes toward work, such as perception of self, are the focus of segmentation. Psychographic segmentation aims to segment potential employees based on values, motives, and personal objectives and the behavior that results from these elements (McDonald & Dunbar, 2007).

Segmentation based on perceived fit between potential employees' values and the culture of the organization is not yet widely used (Stahl et al., 2007), though its use is increasing considerably (Cantrell & Smith, 2010). The emphasis on cultural fit is recognized as a best practice in the HR literature (Cartwright & Holmes, 2006; O'Reilly & Pfeffer, 2000). In line with contemporary marketing literature, Joyce (2010) notes that the challenge of recruitment for employers is "to make their organization both known and attractive in order to create a level of familiarity that will offset the fear of the unknown" (p. 124).

2.5.8 Ethical and Legal Considerations Regarding Segmentation and Recruitment

The discussion of ethical and legal themes in the HR literature differed between regions. Contrary to the United States, there has been little mention of ethical issues in the academic literature from the United Kingdom until recently (Farnham, 2010). In the last 30 years, the

legal and regulatory human resource environment has increased exponentially, especially in Europe, covering topics such as redundancy laws, contract of employment, and discrimination law (Farnham, 2010). Much legislation has been introduced in the last decades that affect segmentation and targeting in the recruitment setting (e.g., the Equal Pay Act 1970, the Sex Discrimination Act 1975, the Employment Equality Regulations 2003 (both sexual orientation and religion or belief) and the Employment Equality (Age) Regulations 2006, all in the United Kingdom). Introduction of equal employment opportunity legislation is associated with an increase in formality and transparency in the recruitment and selection process (Aycan, 2005). Court rulings in civil rights cases influence recruitment and targeting practices as well. In the United States, the outcome of *Griggs v. Duke Power* case limits the possibilities to hire for potential as the ruling states that hiring criteria “should be limited to predicting the ability to perform in the job that is being filled and not future jobs in the organization” (Cappelli, 2008, p. 195).

In the context of segmentation and targeting, Cantrell and Smith, (2010) acknowledge that there is a fine line between differentiation (resulting in different offers for different segments) and discrimination. Segmentation based on certain variables, such as gender and age, may be difficult in countries like Germany and the United States because of antidiscrimination legislation (Gallagher & O’Leary, 2007; Ruddy & Anand, 2010; Trost, 2012). Therefore, segmentation and targeting approaches should be planned and implemented with care, ensuring they are in compliance with local legislation (Cantrell & Smith, 2010). Ethical segmentation issues are mainly discussed in relation to internal segmentation of current employees (Roberts, 2012). Ethical behavior in external and internal recruitment suggests that a company, for example, provide adequate job descriptions and specifications for candidates or return an application to an unsuccessful applicant with an explanatory statement (Farnham, 2010). Research (Hartmann, 2002; Gallagher & O’Leary, 2007) suggests that in current recruitment and talent management practices, targeting may result in unintended discriminatory behavior, because variables (e.g., demographic data) are used that have low predictive value for the targeted behavior. Although no research is available that correlates social class with performance, Hartmann (2002) found that social class is still a predictor of career potential. With women, family status is still often linked to family duties such as housekeeping and child care and can be a potentially limiting factor in career development, notwithstanding the lack of empirical evidence that links family status to performance (Hartmann, 2002). A systematic segmentation and targeting process in recruitment can only be implemented after thorough external and internal analyses. The discussion of the results of these analyses may increase the awareness and sensibility of the current implicit criteria used in the recruitment process. Targeting has the additional advantage of narrowing the applicant pool, thus decreasing the legal liability of rejecting applicants (Ryan & Delaney, 2010). Recruitment practices take place within boundaries set by ethical and legal constraints as well

as within the framework set by professional guidelines, which all need to be considered, as some practices may be legal in some countries, but not in others, or may not be in line with professional and ethical guidelines (Ployhart et al., 2006).

Stahl et al. (2007) posit that it is important that recruitment practices are aligned with the HR strategy, the business strategy, the values of the company, and the company context. Rynes and Cable (2003) have also called for an increased integration of context in the analysis of recruitment practices. Dineen and Soltis (2011) posit that there is “great potential for interplay between contextual considerations and targeting strategies” (p. 50). The influence of context on organization form, processes, and the necessary tools has been extensively studied in contingency theory. Orlitzky (2007) posits that “it would be unrealistic to expect particular recruitment strategies to be superior to all others, regardless of contextual influences” (p. 282).

2.6 Contingency Theory

Contingency theory serves as the theoretical framework of this study. It builds on the findings of various authors (e.g., Dineen & Soltis, 2011; Orlitzky, 2007; Ryan & Delaney, 2010) that several external context factors serve as important contingency factors for the recruitment of employees in organizations. Schuler and Tarique (2012) posit that strategic contingency theory is a viable theoretical concept for studying talent management issues. Contingency theory is a well-accepted research framework that allows for a systematic analysis of the various recruitment components, such as identification and selection (Kleiner, 2008). Although the contingency framework was discussed more intensely in earlier stages of organizational theory, in the last decade this framework has been revived and has drawn increasing attention in research and publications by academics (Pleshko & Heiens, 2011).

The main objective of contingency theory is to explain differences in organizations through variations in their strategic environment’s characteristics (Pleshko & Heiens, 2011). The basic underlying assumption is that the structure of an organization (Cui & Choudhury, 2003), as well as its activities, such as HRM and talent management (Schuler & Tarique, 2012), has to adapt to the specific situation and company strategy to enable the organization to operate efficiently. Porter (1980) and Miles and Snow (1984) developed business-level typologies of the alternative strategies available to an organization. Contingency theory suggests that talent management approaches should be matched with these different business strategies (Schuler & Tarique, 2012), using the differences in environment and company situation to develop practical guidelines for the design of the organization. Contingency theory helps to build a model while controlling for exogenous influence factors such as competition, regulations, or legal constraints. It posits that there are several potential routes that lead to organizational effectiveness. This organizational effectiveness is achieved through three basic steps: contingency variables are identified that allow for a distinction between concepts; similar

contexts are grouped; and effective internal structures and processes are defined. In the early stages of contingency approach analysis, two-by-two matrices are often developed to dichotomize critical contingencies. These matrices are then expanded to multiple dimensions.

Contingency theory originates from organizational psychology, which attempts to explain choices of certain organizational parameters from contextual factors (Kleiner, 2008). Contingency theory has been used to define the reference framework of certain topics, such as distribution relationships and technology transfer, which are dependent on various context variables in different research fields (Pleshko & Heiens, 2011). In the literature, a distinction is made between the classical structural contingency theory, which focuses on the explanation of certain organizational structures based on context variables (e.g., competitive environment and changes in technology) and a pragmatic approach that also takes the strategy of the company into account (Kleiner, 2008). Child (1972) extended the pragmatic approach and included internal political factors, which resulted in the development of his strategic choice theory. In this strategy, contingency factors such as market definition may be changed to restore the fit between structure and environment, removing the causal relationship that a change in environment must be followed by a change in structure. Child's model is transferrable to the marketing environment. According to Kleiner (2008), marketing strategy is influenced by the environment, which is similar to the influence of context on organizational strategy in Child's model. Marketing and segmentation strategies are influenced by context variables, such as market structure and availability of resources. Therefore, Child's framework seems to be an appropriate framework for studying the influence of various internal and external elements, such as business strategy, legislation, and demographics, on the recruitment of high potentials in the pharmaceutical industry.

Potential employees are part of a system that includes equipment and other resources. Cultural, geographical, and economic factors may influence the recruitment strategy, its tools, and its effectiveness. Liebermann (2009) has described various internal company elements as well as environmental factors that influence the goals, structures, and processes of the human resource function as a whole and the recruitment function specifically within HR; for example, the size of the company influences organization forms and processes. A larger size allows for specialization of various departments and insourcing of certain functions and services (Liebermann, 2009). Different business strategies require a different focus of HR as well (Anderson, 2008). A strategy of customer intimacy implies that HR recruits and selects applicants with strong skills in customer service in order to strengthen the customer relationship, whereas a business strategy that focuses on the customer/market should "use strong market research to drive recruitment and selection so employees have a strong understanding of the target market" (Anderson, 2008, p. 1).

Another factor to consider is changes in technology, which has a high impact on the processes and methods used in the recruitment of high potentials. Recent changes in

information technology have opened up new opportunities but have also added challenges for companies. Forsyth, Galante, and Guild (2006) state that “when it comes to customer information, these are the best and worst of times for corporations” (p. 1). On the one hand, the number of sources with information about customers and potential customers has increased. On the other, the distribution pathways, the increase in customer segments, and different product categories makes it mandatory for companies to consolidate and integrate this information in sophisticated ways. These developments are reflected in the emergence of literature on HR decision science (Boudreau & Ramstad, 2005) and Web analytics (Chamorro-Premuzic, 2012).

The type of industry has also been found to influence HR strategy. Different skills and attitudes are needed in different industries. For example, the pharmaceutical industry has a high percentage of knowledge workers and therefore needs employees with different managerial skills and attitudes (Beckstead & Gellatly, 2004; Collins & Kehoe, 2009) than those of other industries, such as gastronomy, which has a lower percentage of knowledge workers. Lepak and Snell (2002) describe two dimensions of human capital—the value of an employee and the organization’s uniqueness—that define its human resource strategy. Besides the industry, the geographical scope of the company has a direct impact on the human resource needs, which drives the strategy. The performance of a company is influenced by the mixture of cultures in the management of the company in the sense that “national culture constrains rationality in organizational behavior and management philosophies and practices” (Minkov & Hofstede, 2011, p. 13).

The HR attitude was also found to be an important context variable that influences the objectives, processes, and structure of HR. According to Uren (2012), the HR attitude lacks focus on differentiation:

You wouldn’t contemplate having a strategic plan that was the same as your competitors, or a marketing strategy based on ‘best practice’—so why is it that ‘best practice’ and ‘sector comparison’ are the default methods used to create talent management strategy? (p. 4)

In recruiting, as well as in various other human resource management functions, the application of academic theories to real organizations has been found difficult because of differences in context (Price, 2007). Structural, institutional, political, and social context factors, as well as the internal and external networks in which companies are embedded, may influence the strategic choices of these companies (Kinnie et al., 2005). Most researchers of performance and HRM strategies tend to assume that companies act as if they were free and could freely choose the best strategy (Guest, 1997; Pfeffer, 1998), whereas a management’s choice is constrained by the need to meet ethical and legal requirements as well as internal legitimacy (Kinnie et al., 2005). Fields, Chan, and Akhtar (2000) show that most research in HRM does not account for context factors such as technological change, competitive pressure,

size, and location, though they did find that these factors had an impact on the HRM strategy pursued in their study of 76 private-sector firms in Hong Kong.

Examining environmental and internal factors such as business strategy and HR attitude (besides potentially other factors that emerge in the interviews) in this study may enhance the understanding of the factors involved in the targeted recruitment of high potentials in the pharmaceutical industry and support building a model that can be used to assess when segmentation and targeting approaches are feasible and desirable in the recruitment of high potentials in that industry.

2.7 Summary

The literature provides little direction about the feasibility and desirability of the segmentation and targeting approach in HR practice. However, several trends seem to indicate that the feasibility of segmentation and targeting is—at least in theory—potentially increasing.

HR analytics has the potential to deliver systematically meaningful data on which high potentials contribute to a company's performance and the future demand for skills and employees (Cantrell & Smith, 2010). Strategic human resource management starts driving the company culture as a key element of the employer brand it wants to establish (Gallagher & O'Leary, 2007). On the external side, the emergence of Web-based tools (e.g., LinkedIn) and the potential to establish a direct continuous relationship with a group of potential employees seem to deliver the necessary HR tools to segment and target high potentials (Orlitzky, 2007). The abundant number of variables that potentially influence the decision process to recruit a high potential suggests that there is no "one-size-fits-all" explanation of the recruitment process and its influence on performance. Recruitment is similar to other functions in human resources in that the transfer of theory into practice seems to be difficult (Orlitzky, 2007).

This observation supports the contingency theory that there is no one best way of managing/organizing processes in the real world (Fiedler, 1964), but that the design of an organization and its subsystems must be aligned with the business environment and strategy. Organizational needs are better met when an appropriate management style is present and the organization is designed properly (Wade & Schneeberger, 2012).

3 Research Design and Methods

3.1 Theoretical Framework for the Study

Contingency theory has been used as a framework in a variety of contexts. Empirical results support the theoretical relationship between context variables and segmentation approaches (Cui & Choudhury, 2003; Kleiner, 2008), and the explanatory power is well documented. It has been used to gain insights in a variety of topics in human resources such as communication (Goldhaber, 1993), persuasion (Smith, 1982), knowledge transfer (Birkinshaw, Nobel, & Ridderstrale, 2002), and decision theory (Vroom & Yetton, 1973). It is also in line with the results of other empirical work in human resources (Orlitzky, 2007; Schreyögg, 1995). In these recruitment-related topics, various links between contextual factors and differences in the studied topic were observed. In recent years, the influence of company characteristics on recruitment has increasingly become a topic of interest. Characteristics such as firm knowledge (Cable & Turban, 2001), firm reputation (Turban & Cable, 2003), firm personality (Collins & Han, 2004; Slaughter et al., 2004), and brand/organizational image (Chapman et al., 2005; Collins & Stevens, 2002) have been examined and found to have significant influence on recruitment procedures, techniques, and outcomes.

Collins and Kehoe (2009) used the contingency theory framework to study the dependence of recruitment and selection systems on context variables. They identified two main factors that influence the structure and targets of the recruitment process: the task complexity (and resulting specialties) and the information uncertainty. Based on these factors, they were able to establish four recruitment models.

- autocratic: with low information uncertainty and low task complexity. The focus is on local recruitment activities in low-skilled labor sources.
- bureaucratic: with low information uncertainty but high task complexity. This requires targeted recruitment for specialized skills.
- commitment: with high information uncertainty and low task complexity. Recruiting in this model is targeted at employees who fit with the culture.
- professional: with high information uncertainty and high task complexity. This requires a targeted recruitment strategy that focuses on employees with soft skills to enable the employees to cope with ambiguity due to the information uncertainty.

Several marketing studies have been conducted to build explicitly or implicitly on the contingency perspective (Zeithaml, Varadarajan, & Zeithaml, 1988). Ruekert, Walker, and Roering (1985) investigated the influence of various contingency factors on the effectiveness and efficiency of different forms of marketing organizations. Atuahene-Gima and Murray (2004) found that a combination of market orientation (defined as collecting and actively

sharing market knowledge within the company) and speed of implementation is associated with better performance, though market orientation itself was found not to have a significant impact on the performance, and speed of implementation alone was associated with a negative impact on performance. A company culture focused on innovation is associated with a market orientation of the company (Menon, Bharadwaj, & Howell, 1996). In a study of large Florida-based (United States) credit unions, Pleshko & Heiens (2011) examined the fit between the companies' market orientations and their marketing strategies. A high level of market orientation and more aggressive strategies were regarded to have a good fit, as was a low level of market orientation and more reactive and defensive strategies; all other combinations were found to have less of a good fit or no fit. The market share of companies with a good fit between their level of market orientation and various other strategies such as service growth strategy, market growth strategy, and market coverage strategy was found to be higher. Companies with a fit between the market orientation and Miles and Snow's (1984) generic strategies (high market orientation with a prospector or analyzer approach) had a significant higher market share compared to those without such a fit. A similar, though not significant, result was seen regarding market orientation with Porter's (1980) generic strategies (cost leader or diversification). The effect of market orientation and a systematic approach in marketing is positively mediated by technology uncertainty, whereas market uncertainty reduces a company's performance (Atuahene-Gima & Murray, 2004). Atuahene-Gima and Murray (2004) hypothesize that the positive impact of technical uncertainty on performance is because it is less time critical: there remains time for systematic analysis of the environment.

Empirical research within the contingency theory approach is focused on the comparison between context variables and structures (Donaldson, 1996). Contrary to the methods used in this inquiry, the majority of the research within the contingency theory approach has been quantitative. Normally, context and structural variables of a group of organizations are measured, and these variables or categories are compared to each other. Hypotheses that associate contingency and structure are tested (Donaldson, 1996) to be able to make assertions about causal relations between the variables. Most researchers of structural contingency theory (e.g., Blau, 1965; Donaldson, 1996; Woodward, 1965) use quantitative methods to substantiate the theoretical framework. Blau (1965) asserts that

only systematic comparisons of many organizations can establish relationships between characteristics of organizations and stipulate the conditions under which these hold, thereby providing the material that needs to be explained by theoretical principles and important guides for deriving these principles. (p. 338)

However, Child (1972) posits that research that aims to find statistical associations between context and organizational characteristics usually fails to explain underlying processes. Bourgeois (1984) challenges the form of contingency determinism that reduces the role of managers to passive observers, and Burrell and Morgan (2001) observe that "the processual

nature of systems does not lend itself to meaningful study through the use of quantitative snapshots of objectified social structures” (p. 180). Donaldson (1996) asserts that little information is available in contingency research on the decision makers, their motives, and the implementation process, and understanding business processes is a mandatory prerequisite for an adequate explanation of these relationships. Donaldson also describes examples of qualitative research, such as the case study research from Burns and Stalker (1961), which pioneered the contingency theory.

In the last decade, several examples of a more qualitative approach, which is more focused on understanding the underlying processes, have emerged (e.g., Danese, 2011; Kleiner, 2008; Miller, Lerman, & Fritz, 2010). The context variables shape the inquiry and provide a framework in which practices can be studied. Kleiner (2008) used qualitative expert interviews with a mix of open-ended and multiple-choice questions to assess the implementation of customer segmentation in the banking sector. Similar to other qualitative research within the contingency framework, this inquiry aims to add to the contingency literature by using qualitative research methods in the study of the use of the marketing instruments of segmentation and targeting in the pharmaceutical industry.

3.2 Qualitative Research Design

Qualitative research studies human beings in their natural environment for the purpose of interpreting or making sense of phenomena regarding the meaning that man brings to them (Denzin & Lincoln, 2005). According to Marshall and Rossman (1989), qualitative research is most appropriate when experiments are not feasible for ethical or practical reasons, when the focus is on informal and unstructured organizational processes and relationships, and when the focus is on unstated organizational goals and analyzing in-depth complex processes. Qualitative techniques are frequently used to critically examine the application and foundation of theory, build new theories, generate or support hypotheses, and obtain information on meaning, effect, and culture, thus “making the facts understandable” (Ragin, Nagel, & White, 2004, p. 10).

Qualitative inquiry allows one to gain access to the perspectives of the respondents and avoids the predetermined viewpoints of quantitative research (Patton, 2002). Grounded theory is the approach within qualitative research that frames explanations about specific phenomena based on expressed views of participants in interviews (Streubert & Carpenter, 1999) and builds “theory from data” (Corbin & Strauss, 2008, p. 1). It is an inductive and comparative systematic approach for pursuing inquiry with the objective of constructing theory (Charmaz, 2006). The grounded theory method (GTM) is normally considered a qualitative method (Nathaniel, 2003), and Creswell (2013) lists grounded theory as one of the five main categories in qualitative research: biography, phenomenology, ethnography, case studies, and grounded theory. However, Glaser (1978, 1998) considers grounded theory a general method

of research, applicable to both quantitative and qualitative data. This is not necessarily a contradiction, as qualitative and quantitative research may differ depending on the setting and the researcher. The distinction between qualitative and quantitative inquiry is not binary; it can be regarded as a multidimensional continuum on which different types of research can be placed (Ragin et al., 2004). Interpretation is still needed if numbers are used, and text passages may be quantified (Bazeley, 2004).

The key elements for using the GTM are that (a) the theories that are developed with GTM are aligned with the context; (b) the produced theories are “grounded” in data; (c) useful and applicable analytical explanations are elaborated; and (d) the research is practice oriented (Bryant & Charmaz, 2007). For Glaser (1978), GTM is meant “to generate a theory that accounts for a pattern of behavior which is relevant and problematic for those involved” (p. 93).

3.3 Grounded Theory

Grounded theory has roots in two lines of research: the Chicago School of Symbolic Interactionism and the Columbia School of Multivariate Analysis. It was introduced by Glaser and Strauss (1967) as a reaction to the social research of the time, which focused on quantitative methods (LaRossa, 2005). It was regarded as revolutionary because it challenged some basic beliefs about research in sociology, such as the separation between theory and research, the lack of rigor in qualitative research, the assumption that qualitative methods could only be descriptive and not produce theory, and the claim that data collection should be separated from analysis (Charmaz, 2006).

Over the decades, several “variants” of GTM evolved, which seems to have been the objective of Glaser and Strauss (1967), as they advised other theorists to codify their own methods for generating theory. Denzin (2007) currently lists seven variants: “positivist, post-positivist, constructivist, objectivist, postmodern, situational, and computer assisted” (p. 454). Not only are there various variants, but several GTM theorists have changed definitions and interpretations over time (LaRossa, 2005), which makes application of the method(s) difficult at times. Differences also existed between Glaser and Strauss themselves, as Glaser refused to use research questions or literature before collecting data (Glaser, 1998). Corbin and Strauss (2008) consult the literature before data collection and start with some research questions.

GTM also has some commonalities: all GTM researchers regard data as an important source and believe that their theories should stay close to the data; they offer more or less flexible guidelines for data analysis and collection and an integrated concept of process, relationship, and social-world connectedness that is grounded in data (Denzin, 2007). In this study, the approach proposed by LaRossa (2005), which covers the core elements of Corbin and Strauss (2008), is followed. It offers comprehensive guidance on how to pursue grounded theory. Glaser’s approach seems less viable for research in HRM because the resource and time

constraints of the HR professionals prohibit an unfocused approach without research questions and the integration of literature.

Grounded theory was originally developed for sociological research, and it became an important concept in settings such as nursing inquiry (Nathaniel, 2003). More recently, grounded theory has entered HR development research (Egan, 2002). It has been argued that “the grounded research approach presents promising possibilities for the development of theoretical frameworks that emerge from research situated in practice and enhance the human resource development theorist-human resource development practitioner partnership in the process of theory building” (Egan, 2002, p. 277). Therefore, the grounded theory method is a useful method for the study of the use of marketing techniques such as segmentation and targeting in the recruitment of high potentials in the pharmaceutical industry.

3.3.1 Epistemological Paradigm of the Grounded Theory Method

Social research has evolved over time. Qualitative and quantitative inquiries have been associated with ontological, epistemological, and methodological differences. Quantitative research was linked to a positivist and rationalistic paradigm, and qualitative research is regarded to be interpretative, critical, and naturalistic. The positivist approach to social science was originally adopted to increase respectability among scientists (Guba & Lincoln, 1994) and became the mainstream perspective in social sciences. Grounded theory can be regarded as a reaction to the strong focus on the quantitative verification of hypotheses (LaRossa, 2005).

The GTM evolved epistemologically from the philosophy of pragmatism and symbolic interactionism (Corbin & Strauss, 2008). According to the pragmatists, knowledge develops through the actions and interactions of self-reflective beings (Corbin & Strauss, 2008). Pragmatists are concerned with temporal aspects and contingencies. Knowledge is, for them, not absolute, but instead depends upon the perspective of the knower and context. Dewey (1859) and Mead (1863) were two influential exponents of this philosophy (Corbin & Strauss, 2008). Pragmatism contributed significantly to the development of symbolic interactionism (Corbin & Strauss, 2008).

The focal point of symbolic interactionism is the use of valuable and meaningful symbols (Corbin & Strauss, 2008) and the meaning of these interactions. Although several variants of symbolic interactionism exist, Melzer, Petras, and Reynolds (1975) assert that all variants operate under the following premises: humans act on the basis of meaning, meaning emerges from social interactions, and an interpretative process deals with the making of meaning. Blumer summarizes the symbolic interactionism perspective: “1. people act toward things based on the meaning those things have for them, and 2. these meanings are derived from social interaction and modified through interpretation” (on SSSI, 2012, home page). This perspective holds consequences for research. GTM has the capacity to interpret complex

phenomena and is appropriate for the analysis and interpretation of socially constructed experiences (Charmaz, 2003). Based on these perspectives, Lincoln and Guba (1985) list eight characteristics of operational inquiry:

- Research is preferred to be pursued within the natural context.
- Humans are preferred for primary data gathering.
- Tacit knowledge is acceptable in addition to propositional knowledge.
- Inductive data analysis is preferred over deductive analysis.
- Qualitative inquiry is preferred because it is more adaptable.
- The focus should be on purposive sampling, rather than random sampling methods, in order to cover the full range of possible realities.
- The research design is flexible and driven by the data.
- The interpretation of the reality emerges through interactions with the respondents, because it is their perspective of the reality that the researcher tries to construct.

This study of the use of marketing instruments such as segmentation and targeting of high potentials in the pharmaceutical industry uses GTM and is in accordance with the Lincoln and Guba's characteristics of operational inquiry.

3.4 Method

Various recruitment researchers (Chapman et al., 2005; Collins & Han, 2004; Collins & Stevens, 2002; Slaughter et al., 2004;) and segmentation researchers (Kleiner, 2008) build on the contingency theory perspective as a framework to gather data and explore the contexts and contingencies identified. Similarly, this inquiry aims to explore the context of the use of the marketing instruments of segmentation and targeting in the recruitment of high potentials in the pharmaceutical sector.

This study uses the grounded theory method to explore the factors that influence the feasibility and usefulness of segmentation of high potentials within the pharmaceutical industry. GTM is also used to increase the understanding of the key elements involved in the process of segmentation and targeting of high potentials (Collins & Kehoe, 2009; Schamberger, 2006; Uren, 2012). The study used semi-structured interviews to collect data on the current practices, processes, and belief systems of the recruiters, and the influence of environmental factors and business strategy on these practices, processes, and beliefs are investigated. Outcomes of the study are presented, emphasizing the emerging concepts and the context of these concepts (Corbin & Strauss, 2008).

It is to be expected that the context of the research will influence the findings. Generalization of the results will also be limited by the focus on the pharmaceutical industry and specific geographical areas. In addition, the used recruitment methods may influence the findings of the study: the use of platforms such as LinkedIn restricts the interview population

to HR professionals who are knowledgeable in using these platforms. However, the use of alternative recruitment methods in parallel should mitigate the risk of this bias.

3.5 Sample

Sampling in the grounded theory method focuses on the construction of theory, not on population representativeness, but it also does not exclude representativeness (Glaser, 1978; Glaser & Strauss, 1967; Strauss, 1987). In qualitative inquiry, the sample size is dependent on the purpose of the research and on what is necessary to find an answer to the research questions (Wright, 2010). According to Morse (2007), qualitative sampling depends on two principles:

- To obtain good data, research skills are critical. Not only should the researcher have (access to) excellent interview skills, but he or she should also be able to monitor the study. Monitoring of the sampling is necessary to judge which specific domains need further coverage through targeted sampling.
- The sampling in qualitative studies must be purposeful; the researcher must select the correct type of participants who can provide the needed information for the study. Morse (2007) calls this “the inherent bias of qualitative research” (p. 234).

This research uses a mix of purposive and convenience sampling as described by Morse (2006) and Richards and Morse (2007). In convenience sampling, persons who are easily available are selected (Castillo, 2009)—those who also have knowledge in and/or experience with the research topic. Convenience samples are often used to test and/or refine a discussion guide. However, a convenience sample does not allow the researcher to control how well the key characteristics of the sample match the population. Three HR professionals from different functions were recruited through personal networks and contacts to participate in pilot interviews; other participants were recruited through the LinkedIn group of corporate recruiters¹. This group is comprised of 93,000 members with 1,293 affiliates in the pharmaceutical industry. Additional experts were recruited through referrals from HR professionals. As recruitment of high potentials from different continents faces different issues (Stahl et al., 2007) and HRM practices are different in different-sized companies based on the availability of resources (Kotzur, 2007), respondents were selected from various geographical areas and different-sized organizations. Selecting a range of respondents from this population is an acceptable selection method recommended by the convergent interviewing technique (Jepsen & Rodwell, 2008).

Approximately 15 corporate recruiters, heads of recruitment departments, and professional executive recruiters from Europe and the United States in the pharmaceutical industry were

¹ LinkedIn is a platform for social networking for businesses. It has a global reach with about 200 million members (Nishar, 2013). On LinkedIn, people can organize themselves in groups based on interests and profession.

selected to be interviewed for this study, although the final sample size and structure were driven by the data, as recommended in GTM (Corbin & Strauss, 2008).

Criteria for both target groups (that is, corporate recruiters as well as headhunters) include at least five years of professional experience in their profession. Mid-level recruitment positions require three to five years of recruitment experience and eight to ten years to become an expert (Simon, 2013; see also King & Bishop, 1994). Studies of several other domains (e.g., Ericsson, 2005; Simon & Chase, 1973) confirm that prolonged engagement in activities in a certain domain is necessary to acquire expert performance in that area of operation and that it takes about 10 years on average to become an expert in the field (Ericsson, Charness, & Feltovitch, 2006).

Respondents with five years of experience have acquired enough knowledge in their domain to be valuable interviewees, as performance increases faster in the first few years of practice than it does in later years (Ericsson et al., 2006). Therefore, it was decided that five years of experience was sufficient to contribute to the study.

Table 2: Types of Study Respondents

Study Subject	Description
Corporate Recruiter	Specialized talent procurement professionals within the HR department of a pharmaceutical company with at least five years of experience in similar roles
Professional Executive Recruiter (Headhunter)	Specialized talent procurement professionals in the pharmaceutical industry field, who receive a fee for their services as a recruiter, with at least five years of experience in similar roles
Study Population	Corporate and professional recruiters as well as HR generalists with affiliation to the pharmaceutical industry.

3.6 Procedure

The three pilot interviews were recruited through personal contacts. The objectives and background of the study was explained, and dates and times for the interviews were scheduled. Other interviewees were contacted through the LinkedIn message system or directly by e-mail or telephone as appropriate. Initially, five HR professionals per region were selected and contacted from the LinkedIn database. Further recruitment depended on the analysis of these first interviews. The selection from the pool of potential respondents was made to ensure potential participants met the selection criteria, were knowledgeable about recruitment of high potentials, and represented a wide geographical area. Potential participants were screened for geographical location, geographical scope of activity, affiliation with the pharmaceutical industry, size of the organization, and years of experience as an HR recruiter.

The interviewees were selected from a pool of 1,293 potential participants to obtain a sample size of approximately 15. With the GTM approach, the exact sample size and structure cannot be defined in advance; the findings in the data define the structure and size of the sample (Corbin & Strauss, 2008). The targeted number of interviews is consistent with research using GTM (Mason, 2010; Thomson, 2011) and the recommendations of Crouch and McKenzie (2006), taking into account the focused research questions, interviews with the possibility of follow-up questions, and expertise in the research area. Thomson (2011) suggests that sample size can be reduced if the researcher has experience in the field and the ability to follow up with the interviewees.

At the beginning of each interview, the interviewer asked each respondent for permission to record and transcribe the interview. The respondent's approval was also recorded. Alternatively, the interviewer took notes during the interview, which were later consolidated. The interviewee was also informed that the interview would last between approximately 45 to 75 minutes and offered the opportunity to split the interview into two parts if time was an issue. The respondents were assured that all responses would be reported in the aggregate, and no one (nor company) would be identified by name in the dissertation. The information will be kept on file for three years and then destroyed. The respondents were asked if they would be willing to clarify responses or to respond to additional questions by phone or e-mail. Interviews began with a brief overview of the study's objectives and a confidentiality statement. The interviewees received a transcript of the interview with the request to review and comment.

3.6.1 Interview Technique and Technology

Vilela (2008) posits that interviewing is the "best way to have an accurate and thorough communication of ideas" between a researcher and interviewee. Within a qualitative setting, however, there are various forms of interview design for achieving the objective of collecting rich data. Interview techniques may vary from free unstructured discussion or semi-structured interviews up to the use of standardized protocols (Turner, 2010). To increase the comparability of data from interviews while maintaining a certain degree of freedom, the semi-structured interview guide may be used (McNamara, 2009; Silverman, 2004). According to McNamara (2009), the use of a semi-structured interview guide ensures that similar general areas of information are covered in the interview while keeping a degree of freedom that facilitates retrieving information from the interviewees. This approach helps to make the interview more systematic and comprehensive (Patton, 2002).

Two techniques were used to conduct the semi-structured interviews: face-to-face interviews and telephone interviews. The choice for telephone interviews was driven by the availability of the interviewee. Opdenakker (2006) concludes that face-to-face and telephone interviews are the preferred interview method if the interviewed person is seen as an

individual from whom the interviewer wants a personal opinion on a subject. There is a consensus in the literature that the different interview methods, such as face-to-face, telephone, postal, or Web-based, yield similar results (Coderre et al., 2006). For the pilot interviews, face-to-face or telephone interviews were used. All other interviews were conducted by telephone because of the targeted geographical spread of the interviewees and budget limitations.

3.6.2 Development of the Interview Guide

Child's (1972) strategic choice model describes the dimensions within the contingency approach that formed the basis for the development of the interview guide. This model, with marketing substituted for organizational structure as proposed by Kleiner (2008), lists dimensions such as environmental conditions, the strategic choice made by the dominant group within the organization, the marketing strategy, and segmentation and targeting. Table 3 shows how the dimensions from the strategic choice model were translated into topics for the questionnaire.

Table 3: Key Dimensions of the Interview Guide

Key Dimensions	Topics to Be Addressed in the Interview Guide
Environmental Conditions	Identified environmental factors that influence strategy and technology from the literature research: size of the company, employee (high potential) characteristics, technology, volatility of environment
Strategic Choice by Dominant Coalition	Management perceptions, implicit theories, preferences, values, interests, and power (Donaldson, 1996)
HR Marketing Strategy	Differentiated versus undifferentiated strategies Horizontal and vertical fit with business strategy
Segmentation and Targeting	From the literature research: demographic, geographic, and psychographic variables Tools used in segmentation and targeting

This list of topics was used to operationalize the research questions into specific objectives for the interviews, which guided the development of the interview guide. They are specified in Table 4 on the next page.

Table 4: Operationalization of Research Topics in Interview Guide Objectives

Research Topics	Interview Guide Objectives
Identified environmental factors that influence strategy and technology from the literature research: size of the company, employee (high potential) characteristics, technology, volatility of environment	Understand which factors in the environment are perceived as the main drivers of differentiated versus undifferentiated HR marketing strategies and assess the use of instruments such as segmentation and targeting.
Management perceptions, implicit theories, preferences, values, interests, and power	Understand the HR marketing and recruitment concepts used by these HR experts and the relationship between the concepts regarding the management of high potentials and recruitment of high potentials.
	Learn how HR professionals in the pharmaceutical industry view their profession; assess how HR professionals feel about future developments in their profession (impact of HR, future significance of HR and HR strategy, availability and significance of talent (high potentials), and recruitment practices).
	Identify HR professionals' belief systems about high potentials; strategic talent management systems; and business, HR, and recruitment strategies and the future developments thereof.
	Learn about recruiters' views on recruitment, the recruitment process, and their initial thought processes when they have to fill a position.
	Learn about the recruitment and market research tools used by recruiters and how they expect these tools may develop.
	Assess the current policies for driving the company culture and the perceived importance of employee diversity as a driver of culture.
Differentiated versus undifferentiated strategies and horizontal and vertical fit with business strategy	Understand in detail the importance of the alignment of the recruiting strategy with the HR marketing strategy and business strategy.
From the literature research: demographic, geographic, and psychographic variables Tools used in segmentation and targeting of high potentials	Identify the tools used in the companies to assess current and future skill needs.
	Identify how the respondents define and perceive high potentials: Do they have special programs for them? How do they target them?
	Analyze the opinions of the interviewed recruiters regarding segmentation criteria and use of segmentation bases and the considerations in making choices about targeting and segmentation.

Note: Adapted from *Ansätze zur Kundensegmentierung und zu deren Implementierung im Finanzdienstleistungssektor: Eine empirische Analyse im Privatkundensegment von Banken* by T. Kleiner, 2008, p. 161. Copyright 2008 by Gabler.

Demographic data were collected from interviewees during the interviews. Data included years of experience, size of the organization, type of organization, and professional experience (professional executive recruiter or corporate recruiter). Patton (2002) advises that interviews should begin with questions connected to the informant's competence and current experience. As the first questions in an interview are critical for maintaining the interest of the respondent, questions regarding demographic variables are usually placed at the end of an interview (Bradburn, Sudman, & Wansink, 2004). Therefore, the demographic questions asked at the beginning of the interview were kept to the minimum.

In the grounded theory methodology followed in this inquiry, a set of research topics was drafted as a starting point. From these research topics, the interview guide was developed (for the full interview guide, see Appendix A). The purpose of the interview guide was to elaborate—on the basis of these research topics—an elementary structure for the interview. An external researcher with many years of experience in the HRM field reviewed the interview guide, which was revised based on the comments and findings from the pilot study interviews. Some questions were added or omitted based on the specific roles and responses of the interviewees.

In Table 5 (see page 81), all the interview questions that derived from the objectives are listed; the interview guide itself can be viewed in Appendix A. Each interview began with some introductory questions in which the interviewee is asked to describe his or her career, the position in the organization, and training, followed by a set of questions regarding company mission, strategy, and culture. This led to questions about HR strategy and the belief systems of the interviewee regarding performance, recruitment, and, specifically, the recruitment of high potentials. These questions were followed by a discussion about high potentials and their recognition. The central question in this part of the interview was how their organization assesses the potential value of an employee and defines the high potentials, which led to questions on how those high potentials are recruited. Finally, employer marketing was addressed in the interview—if, how, and why it is used. The circumstances that influence the use of marketing instruments, as well as the potential consequences of the use of these marketing instruments in the recruitment of high potentials, were also explored in the interview.

The coding process began after the first interview. Memoranda were written and conceptual models built that allowed for keeping track of the evolving concepts and the relationships between them. The findings of the analysis of the memoranda and models were compared to the literature. Contrary to Glaser's (1998) recommendations, not only were notes taken during the interviews, but the interviews were also recorded (if respondents consented to this; notes were taken as an alternative). The interviews were transcribed and quality controlled for accuracy. Internal validity was checked, and the transcript or notes were sent to the interviewee to check if it reflected the opinion of the interviewee. This allowed for an iterative

Table 5: Objectives and Interview Guide Schedule

Objective	Questions in Interview Guide (see Appendix A)
Understand which factors in the environment are perceived as the main drivers of differentiated versus undifferentiated HR marketing strategies and assess the use of instruments such as segmentation and targeting	Section III, Questions 1–2, 6
Understand the HR marketing and recruitment concepts used by these HR experts and the relationship between the concepts regarding the management of high potentials and recruitment of high potentials.	Section III, Questions 3–5 Section IV, Question 6
Learn how HR professionals in the pharmaceutical industry view their profession; assess how HR professionals feel about future developments in their profession (impact of HR; future significance of HR and HR strategy, availability and significance of talent or high potentials, and recruitment practices).	Section II, Questions 1–5 Section III, Questions 7, 10
Identify HR professionals’ belief systems about high potentials; strategic talent management systems; and business, HR, and recruitment strategies and the future developments thereof.	Section III, Questions 9, 11, 12
Learn about recruiters’ views on recruitment, the recruitment process, and their initial thought processes when they have to fill a position.	Section V, Questions 1–4
Learn about the recruitment and market research tools used by recruiters and how they expect these tools may develop.	Section V, Questions 6–7, 9, 11–16
Assess the current policies for driving the company culture and the perceived importance of employee diversity as a driver of culture.	Section III, Questions 14–15 Section VI, Question 1
Understand in detail the importance of alignment of the recruiting strategy with the HR marketing strategy and business strategy.	Section III, Questions 8, 13
Identify the tools used in the companies to assess current and future skill needs.	Section III, Questions 16 and 17
Identify how the respondents define and perceive high potentials: Do they have special programs for them? How do they target them?	Section III, Question 18–19 Section IV, Questions 1– 5, 7, 9–10
Analyze the opinions of the interviewed recruiters regarding segmentation criteria and use of segmentation bases and the considerations in making choices about targeting and segmentation.	Section IV, Questions 8, 11 Section V, Questions 8, 10

process with the data and comparison of later findings (concepts) with responses from the first interviews.

3.7 Data Analysis and Monitoring

The data analysis process consists of three cyclical steps. Seidel (1998) asserts that qualitative data mining is a process that includes “notice things” (p. 3), “collect things” (p. 3), and “think about things” (p. 5). It takes raw data and raises it to a conceptual level. A *concept* is the label that can be associated with the findings from the data. It is a “process of generating, developing, and verifying concepts” (Corbin & Strauss, 2008, p. 57). It involves sorting data to find related data, usually in the form of patterns of beliefs, behaviors, and opinions of the interviewees (Kelly, 2007). According to Corbin and Strauss (2008), it is similar to coding. Within grounded theory, noticing, collecting, and thinking compose an iterative and progressive process; analyzing the data starts with the first interview or observation (Glaser & Strauss, 1967), and concepts are derived from this data. These concepts are continuously compared, adding new concepts or dimensions and properties to previous concepts. Together with the concepts, the context under which something evolves has to be analyzed to ground the concept and avoid distortion of meaning (Corbin & Strauss, 2008). The analyses in this dissertation follow the analytic process of GTM. Within GTM, writing memoranda, specific coding procedures, and theoretical sampling are important elements (Charmaz, 2006; Corbin & Strauss, 2008; LaRossa, 2005).

Every interview was analyzed in relation to the other interviews. On a continuous basis—starting with the first interview—emerging concepts and relevant context conditions were recorded from the data in memorandums and field notes, coded, compared with the literature, and analyzed (Corbin & Strauss, 2008). The objective of writing memoranda is to force the researcher into a dialogue with the data (Corbin & Strauss, 2008). Field notes are written statements regarding data that may include some analytic remarks or concepts, whereas memoranda are more in-depth complex statements written after the fieldwork (Corbin & Strauss, 2008). The coding in this study was divided in three steps: open, axial, and selective coding, as recommended by Strauss (1987), Strauss and Corbin (1998), and LaRossa (2005). *Open coding* is referred to by Corbin and Strauss (2008) as “breaking data apart and delineating concepts to stand for blocks of raw data. At the same time, one is qualifying those concepts in terms of their properties and dimensions.” (p. 195). The basics of open coding are what Glaser (1978) refers to as the “concept-indicator model” (indicators can be sentences, words, or phrases or parts of the data; pp. 62–63). Charmaz (2006) calls this the *initial line-by-line coding*, in which the data are studied closely. In the open coding phase, mainly the concepts are explored and developed, whereas in the *axial coding phase*, the relationship between the variables is analyzed. In the last phase, *selective coding*, the underlying story is made explicit (LaRossa, 2005). LaRossa recognizes the cyclical nature of the process, in

which each phase is interlinked. Coding can thus be regarded as a dynamic process in which concepts emerge and are constantly compared with the data, literature, and other concepts (Corbin & Strauss, 2008).

In order to keep track of evolving concepts and the relationships between the various concepts, conceptual modeling was used. It has been described in the literature as a toolbox for grounded theorists (Soulliere, Britt, & Maines, 2001). Conceptual modeling can therefore be regarded within this inquiry as an organizing device that allows for a continuing, explicit dialogue between multiple source of data and assumptions (Britt, 1997). It is a methodology that summarizes three continuing dialogues: (a) what concepts are important and not important, (b) the nature of these concepts (what they are and are not, as well as their intensity), and (c) the nature of the relationships of these concepts (how they are or are not related; Soulliere et al., 2001). Thus, conceptual modeling was an integral part of the methodology that allowed for the building of a model from the empirical data. Soulliere et al. (2001) state that models within the conceptual modeling concept can be regarded as vehicles for structuring the above-mentioned dialogues between data and assumptions. The concepts and the relationships between the concepts may change over time. Conceptual modeling can therefore be perceived as a tracking tool (visualized in a model) of these dialogues.

This study does not have various different forms of data, and, therefore, did not require specific qualitative data analysis software. The emerging concepts and context variables was recorded in spreadsheets (Microsoft Excel) and then analyzed. Computer-assisted qualitative analysis has been associated with altering the qualitative power of the data (Patton, 2002) and generating superficial analysis (Coffey, Holbrook, & Atkinson, 1996). The data analysis was accomplished by sifting through and sorting the data for the possible theoretical meaning of the data and developing an emerging unifying idea about the data (Charmaz, 2006). Hence, the data analysis presents the perspectives of the corporate and professional recruiters and provided for the drafting of a theory, grounded in the data, regarding the use of segmentation and targeting in the recruitment of high potentials in the pharmaceutical industry.

3.8 Summary

This study uses the qualitative research method to explore the use of the marketing instruments of segmentation and targeting in the recruitment of high potentials in the pharmaceutical industry. This method is often used to explore the foundations of a theory and build new theories (Ragin et al., 2004). Within the qualitative research design, the grounded theory method (GTM)—a comparative systematic approach with the objective of building theory (Charmaz, 2006)—is used. GTM is a collection of approaches that are all grounded in data (Corbin & Strauss, 2008). This study uses LaRossa's (2003) approach, which offers a comprehensive guide for pursuing grounded research.

Within the study, the context and contingencies of the studied topic uses the contingency theory perspective as a framework. Although in grounded theory method the exact sample size cannot be established a priori (Corbin & Strauss, 2008), 15 interviews is a realistic target based on the literature (Cresswell, 2013; Mason, 2010; Morse, 2000; Thomson, 2011).

A semi-structured interview guide was used in face-to-face and telephone interviews. The interview guide was developed based on Child's (1972) strategic choice model.

Data analysis started directly after the first interview; concepts were continuously compared and new concepts, as well as relationships between concepts, were added as they emerged.

4 Findings and Analysis

This chapter presents the findings and analysis of this study. It begins with a review of the methods used in the study and an overview of the demographic data. The remainder of this section addresses the research questions of the study. As mentioned in Chapter 1, the purpose of this study was to explore and assess the implementation of segmentation and targeting to recruit high potentials in the pharmaceutical industry in Europe and the United States. The following research questions were posed:

1. When and by whom are segmentation and targeting used in the recruitment of high potentials in the pharmaceutical industry in Europe and the United States?
2. Why are these concepts used or not used in the pharmaceutical industry?
3. If these concepts are used in the pharmaceutical industry, which attributes of high potentials are deemed important and which segmentation bases and methods are used?
4. What other concepts and instruments are currently used in the pharmaceutical industry and why?

The first section presents the findings on segmentation and targeting in the recruitment of high potentials in the pharmaceutical industry in Europe and the United States. Subsequently, it reports the reasons why recruiters and HR professionals use segmentation and targeting and the factors that influence the use of these techniques. The findings are then summarized in a few key points.

The analysis section presents a review of the problem statement and the methods used in the study. As Glaser and Strauss (1967) assert that the discovered grounded theory should be presented before the individual categories are discussed, this section continues with a description and short discussion of the emerging grounded theory. The next section of the analysis provides an in-depth exploration of the concepts and categories that comprise the study's emerging grounded theory about the use of marketing instruments in the recruitment of high potentials in the pharmaceutical industry. As advised by Corbin and Strauss (1990), the categories and emerging concepts, as well as the relations between these categories and concepts, are examined in terms of the types of relevant phenomena, context, causal conditions, intervening conditions, and consequences that are most relevant for the most important categories.

In addition to this microsociological perspective, the categories are also discussed from a macrosociological perspective, referring to terms such as *differentiation* or *emerging properties* (Kelle, 2007). This section includes a discussion of the development of the technological environment, which has a significant influence on contemporary recruitment practices, followed by a discussion of the concept of scarcity of certain groups of high potentials. This concept describes the variables that influence the ability to identify these groups and their scarcity.

The factors that influence the ability of HR to use marketing instruments, as well as the attitude of human resources versus the use of marketing instruments such as segmentation and targeting in the recruitment of high potentials in the pharmaceutical industry, are also explored. This section continues with a description of the current and perceived future need for certain groups of high potentials in the pharmaceutical companies. Finally, the connections and overlaps between the categories are discussed using direct quotations to support the illustration of the emerging grounded theory.

4.1 Procedure

The sample for this study was obtained through a mix of purposive and convenience sampling as described by Morse (2006) and Richards and Morse (2007). Three HR professionals in different roles within the pharmaceutical industry (one head of corporate HR, one HR generalist, and one recruiter) were recruited through personal contacts to participate in pilot interviews to test the interview guide and generate the first insights on the topic of the study. Then, 12 other participants were identified from a database of corporate recruiters and through referrals of professional and corporate recruiters. The LinkedIn database of corporate recruiters was searched for corporate and professional recruiters with an affiliation to the pharmaceutical industry. The LinkedIn database provides information regarding the industry they recruit for and their years of experience.

This information was used to generate a list of people who work in the pharmaceutical industry and had at least five years of experience. From this list, individuals were selected from Europe and the United States in order to generate the targeted geographical scope. Subsequently, a short invitation mail (through the database mail service or via e-mail when available; see Appendix 2 for invitation mail) was sent to the selected members of this database and those identified by referrals that explained the study and requested participation; those people whose telephone numbers were available were contacted directly by phone. In total, 15 people participated in the interviews for the study, of which five were recruiters from the LinkedIn database. One targeted recruiter from this database declined to participate in an interview for this study and 12 recruiters from the database list did not respond to the invitation. None of the interviewees identified through referrals declined to participate.

Recruitment of interview candidates and analysis was an interactive process as demanded by the principle of theoretical sampling, a key requirement of the grounded theory method. After the first group of interviews, the choice of subsequent interview partners was based upon the analysis of the preceding interviews, thus following the recommendations of GTM (Egan, 2002; Glaser & Strauss, 1967). Based on the first analysis, sampling was adapted and specific profiles targeted (e.g., professional recruiters were added to the sample and senior HR professionals in biotechnology companies were targeted). Although this sampling method did

not result in a representative sample, it allowed a focus on the purpose of the research and on the requirements to find an answer to the research questions as described by Wright (2010).

Through the interviews, profiles of the organizations represented by the recruiters were generated regarding size, scope, and location, as were demographic profiles of the individual recruiters based on age, gender, education, length of service with the company, and length of service in HR or recruitment. The 11 corporate recruiters and generalists interviewed (73% of the sample) represented companies of a variety of sizes and locations: five (45%) were from the United States and six (55%) were from Europe (see Table 6). The sizes of the companies of the participating corporate recruiters ranged from 350 to more than 100,000 employees with an average of 28,000 employees. Of these companies, three (27%) had grown moderately in the last five years (five-year average percentage of sales compound annual growth rate (CAGR) less than 10%); five (45%) had grown significantly (five-year CAGR between 10% and 20%), and one (9%) had grown very fast (five-year CAGR over 50%). For two companies (18%), it was not possible to assess the growth rate; one company (9%) did not yet have five years of sales, and one (9%) was part of a conglomerate and did not report sales for the unit. However, all the companies represented showed continual growth with no decline in sales. The organizations varied from those that focus on highly specialized prescription medicine products only, to those that market over-the-counter drugs, prescription drugs, vaccines, diagnostics, and medical devices, as well as intermediate products. All the companies were involved in R&D as well as commercialization of their products.

Table 6: Organization Sizes, Growth, and Locations and Corporate Recruiter Roles

Role	Organization Size (Employees)	Five-Year Average % Sales Compound Annual Growth Rate (CAGR)	Location
HR generalist	3,500	10–20%	United States
HR generalist	1,700	> 50%	United States
HR generalist	4,000	10–20%	United States
HR generalist	550	10–20%	United States
HR generalist	120,000	< 10%	Europe
HR generalist	350	Not applicable ^a	Europe
HR generalist	2,500	< 10%	Europe
Corporate recruiter and HR marketing	82,000	< 10%	Europe
Recruiter	90,000	10–20%	United States
Recruiter	1,850	Not available ^b	Europe
Recruiter	5,400	10–20%	Europe

Note. N = 11

^aLess than five years of sales. ^bPharmaceutical division of conglomerate

Of the four professional recruiters interviewed, two (50%) were U.S.-based and two (50%) were based in Europe (see Table 7), although all of them recruited globally. All professional

recruiters recruited for the life sciences industries but differed in the scope of their activities, which ranged from pharmaceuticals and diagnostics to medical devices. Two (50%) professional recruiters focused mainly on certain functions in the life sciences industry (e.g., market access specialists), whereas others recruited for various functions. One of the professional recruiters (25%) was a diversified consultant and also offered coaching and other HR consultancy. All four professional recruiters had experience working with large pharmaceutical companies as well as with small pharmaceuticals and biotech companies.

Table 7: Roles, Organization Sizes and Types, and Locations of Participating Professional Recruiters’ Organizations

Role	Organization Size (No. of Employees)	Organization Type	Role
Senior Partner	10	Life sciences executive search and recruitment	United States
Head Life Sciences Business Unit	<10	Life sciences industry recruitment	Europe
VP Commercial Operations	10–20	Talent recruitment and management consultancy	Europe
Managing Partner	>20	Executive search for life sciences and health-care industries	United States

Note. N = 4

The distinction between corporate and professional recruiters is not clear, however, as some professional recruiters changed to corporate recruiting and vice versa. One professional recruiter (25% of all professional recruiters) is a former corporate recruiter, and three (27%) of the corporate recruiters formerly worked for professional recruitment companies. When results in this study are reported with a distinction between corporate and professional recruiting, the position at the time of the interview dictates the group in which their results are reported (e.g., if an interviewee at the time of the interview is a corporate recruiter results were reported in this category irrespective of the former function). The level of interviewee seniority varied from vice president of human resources at a biotechnical company to operational recruiter for a large pharmaceutical company, though all possessed at least five years of experience in HR or recruitment, as shown in Table 8.

Of the 15 interviewees, 8 (53%) were female and 7 (47%) were male. The interviewees comprised a fairly educated group with education varying from a bachelor’s to PhD degrees. Seven of the corporate HR generalists and recruiters (47%) had educations in HR-related fields, such as psychology or organizational psychology, whereas the other corporate recruiters (27%) and the professional recruiters (27%) had a wide variety of educational backgrounds (e.g., international business, marketing, American literature, and law). The median age category was the 40–50 age group (five interviewees; 33%) with five younger respondents (33%) and five older respondents (33%). The interviewees had an average of 16.4

years of experience in HR, ranging from 6 to 34 years. The majority was rather new at their current organization; the mean tenure at the current organization was 6.3 years, ranging from 1 to 13 years; the median was two years. The scope of the interviewees' current role in the organization varied from operational recruiter to head of the HR department.

Table 8: Experience, Training, and Function of Interviewees

Gender	Years in HR	Years at Org.	Age Range	Education	Position
Female	11	11	30–40	Master's degree, Business Management & Organizational Psychology	Head of HR
Female	7	4	30–40	BA, International Business	Manager, Talent Acquisition
Female	11	2	40–50	University of Applied Science, Managerial Economics	Professional recruiter
Female	13	13	40–50	BSc, Political Sciences, International Politics, Philosophy, Anthropology	Professional recruiter
Female	26	11	60–65	Higher Education Administration	Professional recruiter
Female	29	2	60–65	MS, Human Resource Development	Senior Manager, Human Resource Development
Female	19	4	40–50	MS, Human Resource Management	Vice President Human Strategy
Female	19	6	40–50	PhD, Organizational Psychology and American History and Literature	Head of Recruiting and Personnel Marketing
Male	21	1	50–60	BGS, Business & Psychology; MBA	Head of HR
Male	8	2	30–40	MAS, Leadership & Management	Head Global Sourcing
Male	6	2	30–40	MA, Political Science & Government	Talent Acquisition Specialist
Male	34	12	60–65	MBA, Finance & Marketing; MA; PhD, English & American Literature	Vice President, Human Resources
Male	13	13	40–50	JD, Labor Law; BA, (1) International Relations & (2) Economics	Professional recruiter
Male	23	11	50–60	MBA/GEORH, Human Resources	VP, Head Global Human Resources
Male	6	1	30–40	PhD/CAS, Personnel Psychology	Staffing Manager Development

Note. N = 15

4.2 Interviews

The use of GTM resulted in an extended period of one year and nine months to complete the 15 interviews. The interviews were transcribed and analyzed and the results compared with the preceding interviews, memoranda, and emerging concepts before further interviews could be planned and interviewees recruited. Interviews were conducted from March 2012 to January 2014. After a set of two or three interviews, data were analyzed and the consequences regarding impact on the sample structure and size were evaluated (e.g., after the first interviews, the sample was extended to include professional recruiters as it was evident that they could contribute to the study).

The 15 interviews were planned to take place in one session, though one interview was split into two sessions because of the poor phone connection. Interviews averaged slightly longer than one hour; the minimum was 43 minutes and the maximum was 96 minutes (see Table 9). Three (20%) interviews were conducted face to face, and the other 12 (80%) were completed by telephone. One interviewee asked not to be recorded; therefore, extensive notes were made during this interview. During the analysis phase, any questions that emerged from the interview transcripts were sent to the interviewees for clarification by e-mail.

Table 9: Interview Types, Duration, and Resulting Data Set

Interview type	Interview duration (in minutes)	Data set
Phone	71 min	Interview transcript
Phone	45 min	Interview transcript
Phone	60 min	Interview transcript
Phone	56 min	Interview transcript
Phone	47 min	Interview transcript
Phone	53 min	Interview transcript
Phone	76 min	Interview transcript
Phone	56 min	Interview transcript
Phone	96 min	Interview transcript
Phone	43 min	Interview transcript
Phone	54 min	Interview transcript
Phone	83 min	Interview transcript
In person	80 min	Interview transcript
In person	51 min	Notes
In person	45 min	Interview transcript

4.3 Data Analysis

Interviews were transcribed, compared, and complemented with the notes taken during the interviews. Transcripts were sent to the interviewees for comments. Lincoln and Guba (1985, p. 314) posit that sharing the transcripts is “the most critical technique for establishing

credibility” and is considered to be a relative easy and cost-effective procedure (Creswell 2013). Creswell recommends sharing the transcripts as a procedure to establish validity of the research.

The interviews and notes were reviewed to identify potential themes. Questions about emerging themes were asked to better understand them in a process called “focusing” (Lofland, Snow, Anderson, & Lofland, 2006, p. 219). Corbin and Strauss (2008) view asking questions as an analytical tool that is useful throughout an analysis. Ideas and records of analysis were recorded in memos and diagrams. Microsoft Excel spreadsheets were used to list the emerging themes and assist in the analysis. By constantly comparing data incidents with each other and identifying emerging themes, a set of categories was developed. In the GTM phase of axial coding (Corbin & Strauss, 2008), these categories were synthesized and related to each other. The emerging categories and the relations between the categories were used to build the models.

4.4 Data Results

The results of the data are based on the four research questions listed in Chapter 1 and again in this chapter. Following Richie et al. (1997), we begin the discussion of the results by starting with those interviewees who mentioned a certain topic. In cases where stating the numbers was inappropriate or irrelevant, specific terms have been used to indicate the frequency of similar categories and concepts. The words “many” and “most” have been used to discuss categories and concepts mentioned by at least 10 (67%) of the 15 participants. The terms “several,” “some,” and “a number of” indicate that 5 to 10 interviewees (33% to 67%) used these constructs. “A few” was used to show constructs and categories expressed by fewer than 5 interviewees (33%).

4.4.1 When and by Whom Are Segmentation and Targeting Used in the Recruitment of High Potentials in the Pharmaceutical Industry in Europe and the United States?

The results of this question show that 100% of the recruiters and their organizations acknowledge the benefits of targeting and segmentation, whereas the segmentation criteria (e.g., education, gender) used by each are limited in scope and number. All corporate recruiters interviewed (11) target high potentials or participate in partnerships with professional recruiters who do the targeting. The scope of the activities varied, depending on the availability of specialized in-house recruiters, strategy, and scarcity of the needed professionals. Three (27%) companies explicitly mentioned that they have recently in-sourced the recruitment function (one company [9%] currently recruits only through internal personnel; the other two [18%] use a hybrid model of internal recruiters combined with

professional recruiters). These companies in-sourced their recruitment to be more cost efficient and because it allows them to enhance the quality and better control the “recruitment experience” of the potential candidate. One of these corporate recruiters (9%) mentioned the difference for potential candidates to be contacted by company recruiters instead of an external recruiter. Two other companies (18%) explicitly outsource targeting in the recruitment process. One of the two (50%) has a high fluctuation in demand and outsourcing through strategic partnerships allows them to remain flexible, whereas they maintain an in-house database of high potentials with whom they have had prior contact. The other company (50%) had a very low involvement in targeting; it outsources this activity to a third party because the HR department lacks the internal competence and resources to do it. The remaining six companies (55%) use varying kinds of hybrid models, with a combination of internal and external recruiters. Depending on the level of the job opening, cooperation with external recruiters can be short term (on an on-demand basis) or part of a long-term strategic partnership.

The four (100%) interviewed professional recruiters reported working with proprietary databases as well as publicly available databases and social media (e.g., LinkedIn). The sophistication and scope of these databases varied significantly. Although having a pool (database) of potential candidates was seen as state of the art in the recruitment field, market research was rarely used to identify regions where these potential viable candidates were available.

Although 10 of the 11 pharmaceutical companies (91%) were directly involved in segmentation (e.g., in segmentation of universities for college recruitment purposes or through employee referral programs) the term *segmentation* was rarely used by the interviewees. Consequently, the interviewees have not specifically differentiated between segmentation as a business strategy and segmentation as a market research tool. All 11 corporate recruiters (100%) used certain recruitment channels, such as employee referral programs (55%), college recruitment (82%), and professional recruitment agencies (91%), whereas the combination of recruitment channels differed by company. However, none used market research analysis, such as conjoint analysis, or statistical techniques, such as clustering, to segment their labor markets. The four professional recruiters (100%) also did not use these techniques. When prompted, all corporate interviewees and professional recruiters acknowledged the richness of the available data, such as in-house employee performance data, but none used these data to define segments of potential or current employees.

The labor market knowledge side of marketing (market research, segmentation, and targeting) was important for a group of corporate and professional HR professionals. Four (36%) of the corporate interviewees posit that knowledge was the core of recruitment and three (27%) mentioned that knowledge was important. Knowledge was also an important part of the recruitment process for three of the four (75%) professional recruiters. However, the

interviewees did not differentiate between networking and market analysis. Collecting information about individuals through networking was their main source of market knowledge.

4.4.2 Why Are These Concepts Used or not Used in the Pharmaceutical Industry?

There were two main reasons why segmentation and targeting were used by HR in the pharmaceutical industry: (a) the high need for members of a scarce group of professionals (e.g., engineers and clinical researchers) who are of high value to the company and (b) the ability to identify certain groups with a simple metric or algorithm (e.g., segmenting universities based on disciplines). A variety of variables (e.g., education and specialty) was used by 10 of the 11 companies (91%) to partition the market and identify specific groups of interest. Only one company (9%)—one of the smaller ones in the sample and the same one that outsourced the targeting—did not segment certain populations; segmentation and targeting were fully outsourced to professional recruiters.

The most common variables used for segmentation were experience (specialty) and education. All interviewees screened social media (or have professional recruiters do so for them) for applicants with experience in specific professions (e.g., clinical development) or with specific instruments (e.g., engineers with experience in biological production). The three larger companies (27%), two midsize/small companies (18%), and three biotech companies (27%) maintain relationships with colleges/universities and business schools to recruit high potentials from these institutions. Three of the four interviewees from biotech companies (75%) mentioned that this was an important tool for targeting and recruiting scientists and engineers, who are scarce. Large and midsize pharmaceuticals were also involved in college recruitment, though their recruitment extended beyond scientists and engineers to include recruiting for management roles at business schools.

Six of the eight companies (75%) select colleges as preferred partners and recruitment sources based on the specialty of the university or business school. One interviewee (13%) mentioned that colleges were selected based on established contacts with current employees and/or HR professionals, and two interviewees (25%) mentioned the importance of geographical location in establishing partnership with colleges. Two of the four biotech companies (50%) also segmented the competition based on similarities to their companies. Employees from these companies were specifically targeted. All (except for one company, which segmented communication channels based on cultural fit) used segmentation bases that were simple and did not require sophisticated data analysis.

There were five reasons for the low use of sophisticated segmentation and targeting tools. One reason why more sophisticated segmentation and targeting tools (e.g., segmentation based on psychographics) were rarely used in the pharmaceutical industry was the lack of

external challenges to change the current practices. The current approach of targeting through networking and word of mouth worked for 10 of the 11 companies (91%) and all professional recruiters to fill the majority of open positions. Only the company that had the fastest growth in the past five years and was under high pressure to recruit new employees to keep up with company growth targets its messages to a certain group of potential employees (based on market research). Companies re-evaluated their recruitment practices and started using more sophisticated marketing instruments to recruit these high potentials only if the need for them is high. A second reason was company managements' perception of the key business drivers. Recruitment targets were set based on what management perceives to be the business drivers for a company. In cases where interviewees mentioned that the pipeline or innovation was perceived to be the main driver for value in their company (64%), less emphasis was put on the recruitment of specific groups of high potentials, compared to companies that highlight the importance of their employees as their main value driver (36%).

A third reason for the low use of these sophisticated segmentation and targeting tools was the attitude and ability of the HR department. HR is not a data-driven profession; none of the 15 interviewees proactively mentioned the access that HR had to internal information (e.g., performance ratings) and external information (e.g., databases of potential employees) as added value for the company. None of the interviewees analyzed these information sources beyond the individual level, nor clustered them and used the data to create profiles for recruitment. As a result, they were unable to identify the success factors that could be used as segmentation variables. Six of the eleven companies (54%) compensate for this lack of information by conducting internal market research (e.g., employee surveys), while only one company (9%) translated this market research effectively into segmentation variables for external recruitment. The others use this information for internal purposes (e.g., change management projects). Three of the eleven corporate recruiters (27%), who were active on the operational level, had a marketing degree (e.g., an MBA), but no experience outside of HR. The educational background and experience limits the possibility of using tools from outside HR. One of these interviewees (33%) mentioned that marketing instruments (e.g., market research in recruitment) are not used because many HR people were educated and have spent their entire careers within HR and, therefore, have not learned how to use these tools.

A fourth reason why sophisticated segmentation and targeting instruments were not widely used was because active recruitment of passive candidates beyond college recruitment was relatively new. The recruitment environment had been changing rapidly; all companies in the study were trying to fully understand the possibilities and consequences of tools such as the Internet and data analytics. Five of the eleven companies (45%) in this study were reactive and did not have a specific strategy in place for the most efficient use of these new tools. These companies risked missing the opportunities these new tools offer in the recruitment process. The other six companies (55%) had a strategy in place or were developing one. These

strategies varied from outsourcing the recruitment of candidates to the development of a recruitment strategy that offered potential employees an integrated experience by in-sourcing the recruitment function.

A fifth reason for the low use of these concepts was that none of the eleven companies had explicit objectives regarding targeting and recruitment of high potentials. This might be because the interviewees had trouble operationalizing the definition of a high potential into recruitment situations. All interviewees (100%) had implicit assumptions and opinions about the definition of a high potential, but only six corporate HR professionals (55%) and one professional recruiter (25%) used a formal definition for development or recruitment purposes. Five of the eleven (45%) corporate HR professionals and three of the four (75%) professional recruiters did not have a formal definition of *high potential* but used a set of implicit assumptions to influence their decisions in the recruitment of high potentials.

4.4.3 If These Concepts Are Used in the Pharmaceutical Industry, Which Attributes of High Potentials Are Deemed Important and which Segmentation Bases and Methods Are Used?

Interviewees alluded to four groups of high potential attributes that are used as segmentation bases in specific situations.

- *Demographics (gender, age, ethnicity) or geography.* Four of the eleven interviewed companies (36%) had internal gender-based objectives for senior management. None, however, segments the external recruitment market based on gender. The companies in this study did not analyze the labor market regarding gender, but instead relied on networking to gain access to certain target groups, such as a pool of female market researchers. Two of the interviewees (18%) mentioned that they actively try to include more women in the recruitment process for high potentials. Three companies (27%) also emphasized the importance of geographic and ethnic diversity in the workforce, though none targets candidates from specific regions. When gender, geographic variety, and ethnicity were mentioned as important characteristics, it was always noted by the interviewees that these criteria were only important if the potential employee had the appropriate skillset for the position. Three out of four professional recruiters (75%) mentioned that gender goals for recruitment are given regularly—sometimes explicitly, sometimes more informally. Goals for recruitment of employees with a certain ethnicity and/or geographical background were rarely set by the companies in this study (only in one company, or 9%). Age was indirectly used in college recruitment, which, by definition, targets younger potential employees, but it was not mentioned as a specific target. In one interview, antidiscrimination legislation was mentioned as a reason not to focus on age.

- *Experience (specialty) and skillset.* Corporate and professional recruiters screen social media for experience and specific skills. Databases were partitioned based on key words (e.g., market access or clinical development), and groups of potential applicants are built. These groups were then further analyzed and potential interesting candidates were approached.
- *Performance.* Past performance was an important criterion when companies decided to hire a candidate. However, none of the companies analyzed the abundant available internal performance data, though all have performance systems for individual assessments in place. Therefore, these companies did not know if certain employee groups (e.g., those recruited from certain universities) systematically performed better or worse and cannot target these accordingly.
- *Cultural fit.* Although the importance of cultural fit was acknowledged by seven of the eleven corporate recruiters (64%) and three of the four professional recruiters (75%), only one of the companies (9%) focused on the cultural fit during the sourcing phase. This company had conducted internal market research to analyze the company's culture and developed messages that targeted scientists who fit with the culture. In all other companies, cultural fit was assessed later in the process during the interviews, if at all.

4.4.4 *What Other Concepts and Instruments Are Currently Used in the Pharmaceutical Industry and why?*

Employee referral was used by six of eleven companies (55%). A referral program is an informal segmentation, targeting, and sourcing tool. It is most effectively used to target specific skillsets in disciplines where these skills are scarce (e.g., scientists, engineers). These professions may be so specialized that only specialists in the field understand the specific competencies needed to perform. Internal specialists were therefore best suited to find potential applicants with these competencies. Recruitment through the “best” employees was widely regarded as a good instrument for finding people who fit with a company's culture. Similarity of personalities/culture of the targeted persons with the existing employee population was also mentioned by one interviewee as a limitation of this approach when the company plans for a cultural change (e.g., changing the company culture from a science-focused approach toward a patient-centric approach). Only the interviewee from the smallest company (9%) explicitly mentioned the lack of such an employee referral program.

Three of the largest pharmaceutical companies (27%) systematically screened the market for certain capabilities—or let specialized agencies do this—and follow identified persons over a considerable time, thus creating pools of adequate candidates. When they have an open position that fits the profile of someone in these talent pools, they would approach these potential candidates and possibly hire them.

The majority of the interviewees in this study (12 of the 15; 80%) recruited candidates through networking. Corporate and professional recruiters used similar tools to build their network: social media screening, visits and observation at congresses, booths at fairs, and through cooperation with universities on projects (for high potentials with a science background). A networking activity that was exclusively used by professional recruiters (50%), but not the corporate interviewees, was “undercover calls” to companies, where professional recruiters tried to gain insight into the “who’s who” of a company without identifying themselves as a recruiter.

All companies have an “open position” feature on the homepage of their Web site. Through the homepage, people see a basic job description, apply for the job, and contact a HR manager. Only one company (9%) built its Web site using (internal) market research to ensure that the messages were correctly targeting specific groups.

In addition, social media have changed the recruitment landscape significantly in recent years. Professional social media, such as LinkedIn, Ushi, and Xing, were extensively used to search for potential candidates. The four professional recruiters used these social media sites as search tools and databases—supplemental to their proprietary databases—for potential high-potential candidates. In the corporate recruitment environment, three companies (one large and two midsize; 27%) have recently in-sourced the sourcing function and used social media and proprietary databases. Within two of these companies (18%), as well as the four professional recruitment agencies (100%), new positions, such as “social media sourcer,” have been created to analyze social media for suitable profiles and build lists of appropriate candidates, who were then approached by the recruiters.

4.5 Summary of Findings

The purpose of the current study was to assess the implementation of marketing instruments such as segmentation and targeting in the recruitment of high potentials by pharmaceutical companies. In the case of pharmaceutical companies, the increasing scarcity of available high potentials had an even more profound effect compared to other industries, given their dependence on knowledge workers (Beckstead & Gellatly, 2004).

Key findings of this study were:

- The marketing instruments of segmentation and targeting were used regularly in the recruitment of high potentials. Targeting was part of HR managers’ and recruiters’ vocabulary, whereas segmentation was used in practice but was seldom (18%) part of the vocabulary.
- Segmentation was based on experience, education, reputation (e.g., in college recruiting) and similarity with one’s company (in the case of poaching of employees from other companies).

- Except for the smallest company (9%), all other companies have proprietary databases with the high potentials with whom they had had prior contact and used professional or in-house recruiters to search for passive candidates on social media.
- Targeting of potential candidates was done through networking based upon social media scanning and contacts at fairs and conventions.
- The potential use of segmentation based on other criteria (e.g., personality characteristics) was limited because of a lack of performance data about groups of employees; all HR departments did not systematically analyze which groups of employees added greater value to the company (beyond the individual level).
- The use of segmentation and targeting tools was best explained through a combination of a high need for certain groups of high potentials; the scarcity of needed groups; access to technology; and the abilities, attitudes, and preferred strategies within HR.
- There was a wide variety and lack of clarity in the definitions of *high potentials* that were used for recruitment. In the six companies (55%) that had some form of formalized definition, the interviewees' implicit assumptions about high potentials were used in parallel with the formal definition.
- Although person-organization fit (P-O fit) and the workforce were deemed important in the HR literature, in practice, these elements were not operationalized in the recruitment of high potentials. The preferred skillset, experience, past performance, and education were used to target the potential candidates.

4.6 Analysis and Synopsis of the Study

Several researchers have predicted a global shortage of high potentials in the future (Dobbs et al., 2012; Kotzur, 2007). This prediction is worrisome, as companies today have become increasingly dependent on the employees for their competitive advantage (Ulrich et al., 2008). This finding is especially true in the pharmaceutical industry because it has had a weak leadership pipeline (Garavan, 2012). In addition to the available skillset of employees, the importance of the fit between the values of employees and the culture of the company has been discussed in the literature (e.g., Ployhart et al., 2006; Sutarjo, 2011). The fit of a person with an organization influences the motivation and commitment of the employees (Kristof-Brown et al., 2005), and the commitment and motivation of an employee together with the abilities of the employee determines the value of an employee for a company (Tamkin, 2005).

Changes in the technological and business environments have facilitated the ability to actively search for passive candidates as well as collect information about the business environment and (human resource) needs of the company. The rise of social media has changed the recruitment environment considerably, enabling easier identification, targeting, and approaching of passive candidates (Furtmüller, Wilderom, & Tate, 2011). More potent and integrated IT systems facilitate the retrieval and analysis of company information, thus

improving the ability to gather the necessary data for evidence-based decisions (Bloching et al., 2012). Boudreau and Jesuthaan (2011) observe the necessity for HR to evolve further from a “gut feel” approach to an evidence-based one.

Although the need for a high-potential management system has been acknowledged in the literature (Sloan et al., 2003) and by organizations as a best practice, Silzer and Church (2010) found that past performance is still often used and mistaken as a substitute for potential. They found only a few organizations that clearly defined how potential differs from current abilities and past performance.

The attraction of high potentials is part of the recruitment process. It has been described as “the task of marketing jobs in a labour market” (Maurer & Liu, 2007, p. 306). Although Cappelli (2008) observed that the hiring process has almost become undistinguishable from the marketing process, few examples (e.g., Avery & McKay, 2006; Hemphill & Kulik, 2009; Wymer, 2002) from the literature describe how market research and other elements of the knowledge side of marketing (e.g., segmentation) have been applied in recruitment. On the other hand, in the marketing of products and services literature, this knowledge side of marketing, including probing (market research), partitioning (segmentation), and targeting has a prominent place (Kotler & Armstrong, 2010). HRM researchers have pleaded for the use of these marketing instruments in human resources:

B2E (i.e., business to employee) marketers can take a page from consumer loyalty marketing by building a performance database and mining it to build a talent segmentation matrix. Just as customer segmentation allows you to squeeze maximum efficiency out of your marketing budget, so can employee segmentation deliver maximum benefit from your bonus compensation and recognition budget. (Ferguson & Brohaugh, 2009, p. 360)

However, the current focus of HR segmentation literature is on internal marketing within the company (Cantrell & Smith, 2010).

Several barriers for implementation of segmentation have been identified in marketing. Dibb and Simkin (2009) distinguish between hard barriers—such as the availability of data and other resources—and soft barriers—such as company culture and leadership style. The technological requirements, as well as internal data availability, that would allow for the use of sophisticated targeting and segmentation tools in recruitment should be readily available in most companies. The lack of resources and prevailing HR opinions and attitudes explain why more sophisticated targeting and segmentation tools are not widely used. Another reason is the lack of external pressure to change current recruitment practices. Only for certain disciplines (e.g., clinical development specialists) and specific situations (companies with high growth and a high need for new employees) have current recruitment strategies proven to be insufficient.

4.7 Overview of the Emerging Grounded Theory

The analyses of the data collected in this study lead to an emerging grounded theory (EGT) which postulates that the use of segmentation and targeting in the recruitment of high potentials is best understood as an interplay between four categories: (a) the identified internal need for certain groups of high potentials; (b) the scarcity of these groups of high potentials in the market; (c) the attitudes, strategies, and opinions within human resources; and (d) the technological capabilities (see Figure 4 on the next page). In the interview process, 8 of the 11 corporate interviewees (73%) mentioned the need for specific groups of high potentials—in tandem with the use of specific targeting instruments, such as college recruiting. The applied targeting tools varied from basic to highly sophisticated. The remaining three corporate interviewees (27%) did not use or used these tools less frequently in a non-systematic manner. The EGT of this study proposes that the identified current and future need for certain groups of high potentials triggers a process in which the potential use of marketing instruments such as segmentation and targeting can be evaluated. Depending on the scarcity of the human resource, the opinions, strategies, and attitudes within HR, and the technological capabilities, different segmentation and targeting instruments are then implemented by HR professionals. The following section details the use of segmentation and targeting in the recruitment of high potentials in the pharmaceutical industry.

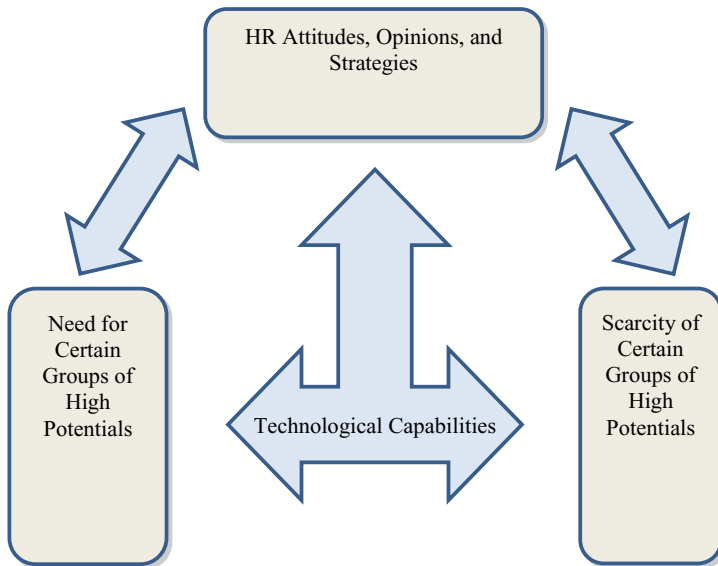


Figure 4: The emerging grounded theory of the use of segmentation and targeting in the recruitment of high potentials in the pharmaceutical industry

Pharmaceutical organizations can be placed in one of three states.

- *First state.* The organization does not differentiate employees regarding value added to the organization. There is no definition of a group of high-potential employees, and recruitment is pursued mainly through the company homepage and/or largely outsourced to professional recruitment agencies.
- *Second state.* The organizations develop (formally or informally) a basic understanding of the differences in value that certain employee groups add to the organization. An internal discussion about these groups and how to manage them differently takes place, but these concepts are typically not used in recruitment practices beyond, for example, college recruitment and the development of proprietary databases for certain target groups. Recruitment in these companies might be in- or outsourced, but recruitment messages are undifferentiated and the employee brand is normally developed internally without market research about the needs of certain potential employee groups.
- *Third state.* Organizations have a high-potential management concept or vision. These companies use segmentation and targeting tools in the recruitment of high potentials, albeit with varying levels of sophistication. In its simplest form, high potentials are targeted with college recruitment programs and company branding activities. In its most sophisticated form, extensive research has been conducted regarding the profiles of the desired high potentials, their needs, and where they can be found. This research is then used to segment the labor market, develop the employer brand, and target specific groups of high potentials.

4.8 Discussion of the Emerging Grounded Theory

The emerging grounded theory of this study postulates that the use of segmentation and targeting in the recruitment of high potentials is best understood as an interaction between four categories: (a) the identified internal need for certain groups of high potentials; (b) the scarcity of these groups of high potentials in the market; (c) the attitudes, beliefs, and opinions within HR; and (d) the technological capabilities (see Table 10). Important elements of the identified internal need for high potentials are the growth (and the volatility of the growth) of the company, the definition of high potentials, and the perception of management of the importance of personnel as a major factor of business success. The scarcity is not only determined by the number of certain available groups of high potentials but also by the number of companies competing for these specific groups and the access they have to certain recruitment channels. How segmentation and targeting are then implemented is influenced by the technological requirements as well as the attitudes and competencies available within the HR department.

Table 10: Context, Conditions, and Dimensions of Categories

Need for Certain Groups of High Potentials	Scarcity of Certain Groups of High Potentials	HR Attitudes, Opinions, and Strategies	Technological Capabilities
<ul style="list-style-type: none"> • Management’s perception of business drivers • Growth of company • Definition of high potentials • Volatility of human resource demand 	<ul style="list-style-type: none"> • Access to certain recruitment channels • Uniqueness of capabilities • Labor market knowledge • Competition for certain groups of high potentials 	<ul style="list-style-type: none"> • Self-concept of HR (administrative vs. partner; passive HR vs. active external recruitment) • Data mindedness (evidence-based HR) • HR definition and perception of recruitment and human resource marketing • Professionalization of HR • Contingency factors of HR strategy and attitude 	<ul style="list-style-type: none"> • Availability of searchable social media such as LinkedIn • Data-mining instruments • Internet as a communication tool

The findings of the study reveal that no specific mix of marketing instruments is used in the recruitment of high potentials by all companies, but it is contingent on internal and external variables. Depending on the specific need for certain groups of the company in combination with the scarcity of these groups, the HR attitudes within the company and the technological capabilities, different instruments are used differently. The use of certain marketing instruments (e.g., targeting and segmentation) within recruitment is influenced by the combination of these four categories. The types of HR marketing instruments that are used for the external recruitment of high potentials in the pharmaceutical industry appear in Figure 5 (on the next page); the higher the need for a scarce type of high potential, the higher the probability is that instruments closer to the top of the pyramid are used. HR attitudes, opinions, and strategy and access to technology then further determine if and how these tools are used by HR departments.

The base of the pyramid builds the development and communication of an employer brand (mentioned by all interviewees as an instrument used by their companies).. The HR marketing literature (e.g., DGFP, 2006; Felser, 2010; Hagen, 2011) also focuses mainly on this aspect of human resource marketing and offers little information on other aspects of marketing, such as market research, segmentation, and targeting. The most basic form of HR marketing is an employer brand, developed within the company; more sophisticated pharmaceutical

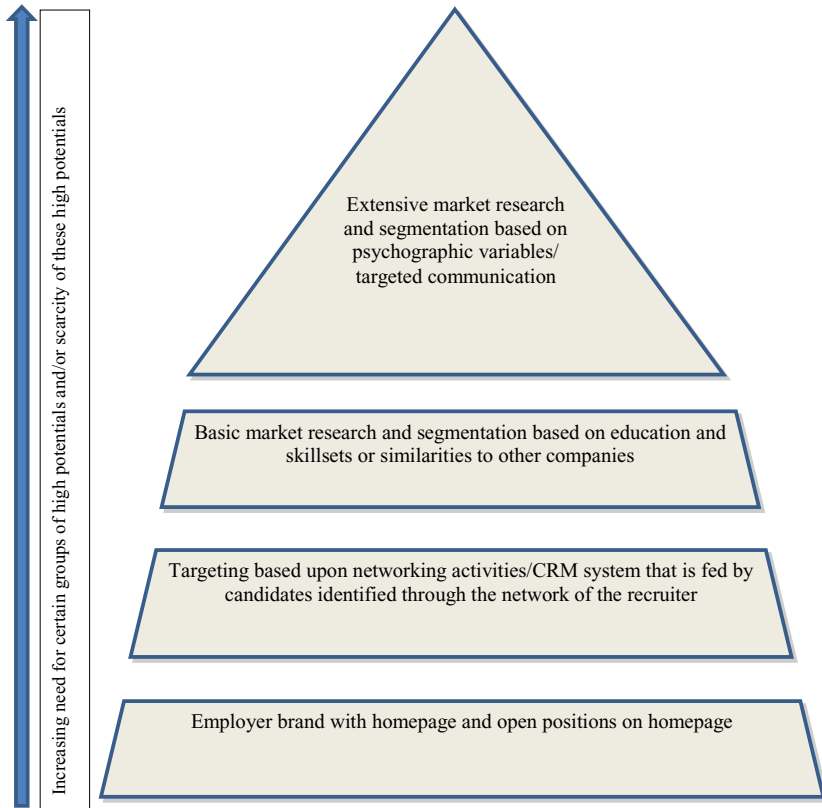


Figure 5: The use of marketing instruments in the recruitment of high potentials in the pharmaceutical industry with relation to need and scarcity of certain high potential groups

companies build their brand based on research in the key target groups. The second level in the pyramid is a customer relationship management (CRM) system (based on networking activities). From the interviewees' stories, this occurs in almost all cases (10 of the 11 [91%]). However, the collected information and databases used differ significantly in scope and sophistication. This system can be an in-house system, outsourced to a professional recruiter, or performed using a hybrid model, depending on the situation of the company. The four professional recruiters (100%) have built proprietary CRM systems. At the third level, a company pursues basic market research to understand its high-potential market and segments the market based on education profiles and skillsets. Two biotech companies (50%) also segment the market based on similarities with their competitors. Potential employees are then

specifically “poached” from these companies. On the fourth level, the company pursues extensive market research regarding high-potential needs, market structure, and communication channels; develops a target profile of future employees regarding skills and attitudes; segments its markets accordingly; and builds targeted messages/communication platforms to attract these potential employees. These methods are similar to those used in contemporary marketing of services and products—methods are developed and implemented that allows companies to identify and target their most valuable customers (Bloching et al., 2012) or potentially most valuable future employees. Rothbard (2013) describes the emergence of algorithms that allow companies to segment the market of future potential employees based on the profiles of these employees by using, for example, the Web sites these people visit and the language they use to describe technology.

The higher the need for specific groups of high potentials and the greater the scarcity of that targeted group, the higher the probability that a company will include segmentation and targeted communication in its recruitment activities portfolio. However, in situations where the need for these groups is less pressing or these high potentials can be rather easily identified and recruited, HR is more likely to continue to use its current instruments and less likely to adapt sophisticated segmentation instruments, such as psychographics, to improve the recruitment of high potentials. This is similar to a person’s tendency to remain in his or her comfort zone when there is not a strong stimulus to change (Strauss, 1959). The HR attitudes and the technological capabilities are the internal and external contingent variables that influence how this need for a scarce resource is implemented in practice.

The emerging grounded theory model bears resemblance to the seminal recruitment model by Windolf (1986; see Figure 6) who examined the impact of context on recruitment strategy. The recruitment strategy defines the type of employees a company can attract and the various sources it uses to attract those employees. Windolf developed a two-by-two matrix based on two variables: labor market power and organizational intelligence. *Organizational intelligence* is defined by Windolf as the “capacity of the firm to use professional knowledge, to collect and process information and to work out complex labour strategies” (p. 239). Windolf’s theory proposes five distinct recruitment strategies that can be placed in the matrix: (a) innovative, (b) autonomous, (c) status quo, (d) flexible, and (e) muddling through. For example, companies with high labor market power and high organizational intelligence have innovative strategies (e.g., recruiting a heterogeneous group of creative potential employees and using a wide range of sourcing possibilities), and autonomous firms are isolated from the labor market and use specific recruitment channels such as professional journals. Windolf explains the difference between firms using autonomous and innovative recruitment strategies with the level of complexity of the industry; firms using an autonomous recruitment strategy work in an environment with a rather low level of complexity, whereas innovative strategies are best suited for companies in an environment with high complexity. Status quo companies

consciously rely on employee referrals and networks to attract a homogeneous group of employees. Companies with a flexible recruitment strategy have a weak labor market position and are forced to adapt to changing conditions. Muddling through companies score low on organizational intelligence and labor market power and use less sophisticated recruitment and selection methods (Windolf, 1986).

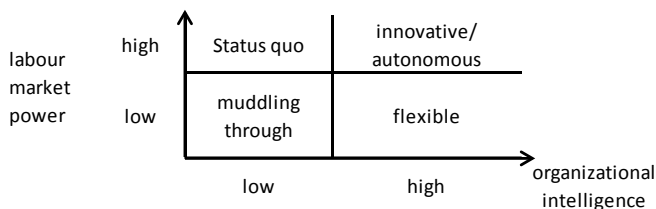


Figure 6: Recruitment strategies. From “Recruitment, Selection, and Internal Labour Markets in Britain and Germany” by P. Windolf, 1986, *Organization Studies (OS)*, 7(3), p. 239. Copyright 1986 by Sage.

Although the two models aim to explain different phenomena—Windolf’s model explains the impact of organizational context on recruitment strategy, and the emerging grounded theory model explains and predicts the use of segmentation and targeting in the recruitment of high potentials—there are similarities between the two models.

The organizational intelligence category in Windolf’s model overlaps the “human resource attitudes, opinions, and strategies category”—the ability and willingness to pursue a certain HR strategy—in the emerging grounded theory. The “scarcity of high potentials category” in the latter model shares similarities with Windolf’s labor market power dimension—the ability to find and recruit the needed employees/high potentials in the external markets. However, while Windolf focuses on the ability to attract potential employees, the emerging grounded theory model emphasizes the ability to find and target potential candidates.

Windolf’s model uses two main dimensions to predict the recruitment strategies of the companies—labor market power and organizational intelligence—resulting in five generic recruitment strategies. Contrarily, the emerging grounded theory model suggests that the interplay between four categories (human resources attitudes, need for high potentials, scarcity of high potentials, and technological capabilities) determine if and how segmentation and targeting are used within the recruitment of high potentials. Further, the emerging grounded theory model is not deterministic and allows both management and HR to influence the use of certain segmentation instruments based on its opinions or strategies. HR can make conscious choices, and the outcome is not exclusively determined by external variables.

An important difference between the two models is the level of need for certain (high-potential) groups in the emerging grounded theory model, which can be regarded as a critical

event that changes the recruitment strategy and the marketing tools used in the recruitment of high potentials. In addition to the different dependent variables (e.g., recruitment strategies versus use of marketing instruments in recruitment), there are several other differences between the models, including the need for certain groups and the character of the labor market (see Table 11 on the next page).

Table 11: Comparison of Windolf’s Model and the Emerging Grounded Theory Model

Windolf’s (1986) Model	Emerging Grounded Theory Model
A certain need is given and not qualified	Quantitative and qualitative need for certain groups is a key variable that influences the use of certain instruments.
Developed in a human resource buyers’ market	Reflects a seller’s market in which companies have to compete for potential employees
Explains differences in a company’s recruitment strategies based on a dichotomy, such as low and high organizational intelligence	Explains different marketing instruments within recruitment strategies based on qualitative differences in human resources strategies

There are four categories that influence the use of segmentation and targeting within the recruitment of high potentials in the pharmaceutical industry: (a) technological capabilities, (b) the scarcity of certain groups of high potentials, (c) HR attitudes, opinions and strategies, and (d) the need for certain groups of high potentials.

4.9 Category One: Technological Capabilities

Academic (e.g., Kay, 2000; Singh & Finn, 2003) and commercial (KPMG International, 2012) sources highlight the potential transformational impact that new technologies can have on HR practices. How companies use available technologies can potentially affect their HR and recruitment practices significantly. A survey from KPMG International (2012) found that “powerful technologies, emerging in times of heightened financial constraints, present a rare opportunity for HR to enact long-overdue reinvention” (p. 3).

Singh and Finn (2003) believe that the emergence of powerful technology supports the transition from recruitment as an administrative function to recruiting staff who are oriented toward technological expertise, ability, and the use of new recruitment processes and structures. Kay (2000) observed: “few markets have been hit as hard by the power of the Web and E-commerce as the recruiting industry. While there are still more changes underway, it is clear that the Web has quickly and dramatically changed the way the recruiting industry works” (p. 72).

Three important recent developments in the technological environment have significantly influenced recruitment practices and have the potential to further change the recruitment of high potentials in general and the use of segmentation and targeting within recruitment

specifically: (a) the emergence of social media as a recruiting tool, (b) the use of the Internet as a communication platform, and (c) the availability of data-mining tools.

4.9.1 Emergence of Social Media as a Recruiting Tool

In this study, the availability of search engines in social media was mentioned by 13 of the 15 interviewees (87%) as a significant change for the recruitment profession. Before the emergence of social media, the recruitment profession was, to a larger extent, a function of receiving applications and evaluating them. According to one of corporate interviewees, “it was more a post-and-pray, typically, I have to say. When I started in recruitment, there was no social media at all. We had the classic newspapers where we posted an ad and waited for candidates.”

If actively searching for passive candidates, recruiters had to advertise their company at conventions and fairs and talk to people visiting that fair or conference. A few recruitment agencies had proprietary databases in certain specialties and offered information about potential candidates, which could be used to target employees with those specialties. Currently, social media offer, in principle, the opportunity for all companies to actively search for potential candidates and to more easily approach them. In the last decade, the recruitment function has transferred from a passive function (i.e., waiting for applicants) to a function that actively targets and recruits passive candidates (Trost, 2012). In parallel, HR has transformed from a mainly administrative role to a more strategic role in the company. Three of the interviewees (27%) mentioned that their companies have recently started to in-source the recruitment function because access to candidates through social media has become easier. Information once exclusively available through résumés and interviews can now be accessed by anyone online. Consequently, the relationship with professional recruiters is changing. Strategic partnerships are built with professional recruiters that have specialized in certain specific target groups (e.g., market access managers), while other target groups are recruited through in-house recruiters. The HR head of a large company stated that the management of certain talent pools was outsourced to a professional recruiter. The majority of the interviewees (14 of the 15; 93%) builds and manages a proprietary system—consisting mainly of candidates with whom they have had prior contact for other positions—as well as databases within social media. One recruiter noted that his company’s database contains potential candidates from LinkedIn and Xing (two online social media platforms):

Everyone can buy them and there you have the database where you can look at all profiles, so you can contact them and save them [for] projects. So it’s always only the profile of candidates that is updated in these tools.

The nine interviewees that use in-house recruitment and sourcing screen social media mainly for reported skillsets, experience, and degrees, a finding supported by Cole, Rubin, Feild, and Giles (2007). Two of the four professional recruiters (50%) use career progression as a marker

for potential when searching for candidates on social media. One professional recruiter noted that:

high potentials must have good learning capability . . . a quick development within a good company. This shows . . . that these are people [who] have . . . high learning [abilities], otherwise they could not have accomplished [this] so fast; so these are the first people I contact.

The criteria used could change in the future as new search algorithms may identify talent using big data techniques. These new search algorithms use various variables to build a profile, such as the language the person uses to describe technology, the Web sites a person frequents, the skills reported on LinkedIn, and the work projects (Rothbard, 2013). This approach may shift the recruitment emphasis away from markers such as academic titles to social traits that reflect the attributes a company needs, noting that “at the end of the day, getting the algorithm to reflect the desired attributes of the company is going to matter a lot with this technique” (Rothbard, 2013, p. 1). Therefore, it is important for HR and senior management to develop a common understanding of the key traits of high potentials in their company. Further, this high-potential profile can be used to develop the criteria for the search algorithms. This focus on different criteria and new algorithms might also have consequences for the HR profession in terms of professionalism and focus on technological expertise (e.g., ability to use data-mining techniques; see Singh and Finn, 2003). From the interviewees’ stories, it appears that the pharmaceutical companies have adapted to the changing business and media environment to different levels.

The process of acquiring technological capabilities is a continuous and evolving process, and the degree to which a company integrates these capabilities varies. The majority of the professional recruiters in this study (three of the four; 75%) were perplexed about corporate recruiters failing to use social media tools more. One interviewee noted that “we have now social media, so if a company is a bit clever, then they [*sic*] engage someone who works with LinkedIn and Xing.”

Eight of the eleven (73%) interviewed corporate HR managers and three of the four professional recruiters (75%) mentioned that the recent changes in information technology have created up new opportunities for them, but they simultaneously presented some new challenges. All the companies in the study have changed their recruitment approach to some degree and use new communication and information channels. Further, independent of size, they have a Web site and use the Internet to make offerings public through their homepage. According to one interviewee:

We do recruit also ourselves, well . . . the only method we use ourselves is to post the position on our Web page and [we] may be on one or two other portals and that’s it—the rest goes through external channels.

In most cases with the corporate recruiters (8 of 11; 73%), sourcing of candidates is done in-house through social media searches as well as through external professional recruiters (referred to as a hybrid model). One company has changed its sourcing strategy completely and exclusively identifies and sources employees through social media searches by internal recruiters. For business-critical positions such as specialized clinical development positions, a talent scout proactively searches for potential candidates:

We have [had] a talent scout on board now for exactly a year, and her function is to first define together with the line management the so-called critical target groups; the positions that are really hard to fill and business critical if they are open too long. We have identified approximately 15 critical target groups for Company X in Germany—for instance, the engineers or pathologists—and so her job is to proactively contact candidates on social media to get to know them and to make them interested in Company X.

Another company used social media—through a specialized recruitment agency—to identify where the target groups are online and communicate with them. Except for targeting potential employees through social media such as LinkedIn, most HR departments in the pharmaceutical industry (approximately 70%) had difficulty using social media as potential information sources. According to two recruiters:

- “I think keeping up with this is a challenge with the data and analytics, to talk the talk of business leaders. I worry about it.”
- “I also think tapping into the power of social [media] today is essential, and that doesn’t just take a small effort. The world is changing so fast online, and the way you recruit talents today is changing so fast online, that again if you just put ad hoc effort to it, whether it’s a consultant or contractor, or added on to someone else’s job that’s already in place, it is just not getting the attention it deserves.”

This confirms Forsyth, Galante, and Guild’s (2006) observation about companies in other industries:

When it comes to customer information, these are the best and worst of times for corporations. The digital era has made available rich new sources of data about customers. Yet rapid growth in customer segments, distribution channels, store formats, and product categories means companies must combine and integrate that information in newly complicated ways. (p. 1)

The results of the current study reveal that the pharmaceutical industry has just begun to understand the possibilities of using social media for HR purposes. Two of the four (50%) interviewees from biotech companies perceive the capital- and resource-rich environment of the pharmaceutical industry to hinder change. High profitability was mentioned by one interviewee as a reason to limit the innovativeness of a company rather than facilitate innovation.

I certainly think that pharma, ironically, lags behind in a couple of key areas. I think that much of pharma becomes so large that it becomes unwieldy and difficult to get out of its own way. . . . and I think that we're also really poor at information technology, which is crucial because it can be such a differentiator in the drug development process. . . . We have to operate on 45% margins or 35% margins at the most extreme, and widely successful innovative organizations in the world are operating at single-digit margins. That is wrong, and I think part of what's wrong is that they become a little more energetic and a little less fat and happy.

The most innovative company in this study with regard to recruitment was almost bankrupt before a period of extreme growth. According to the HR head from this company, such an extreme situation contributed to the process of changing their HR business model:

We are under a lot of pressure to maintain quality while we hire large numbers of people really, really fast. We did a really, really good job under pressure coming up with really creative and impactful attraction campaigns using the Internet and new technologies that really gave us a leg up in finding the right kinds of people.

4.9.2 The Use of the Internet as a Communication Platform

All interviewees mentioned the importance of the Internet to communicate with potential applicants. The Internet is used as a way to present the company and any employment opportunities to potential applicants and to manage applications (e-application). According to one recruiter, "I think we do a pretty good job on our Web site, and we would expect everyone has read our Web site before they come to interview and if we contact them for a phone screen."

Ten of the eleven (92%) corporate recruiters in this study used the Internet the same way as print advertisements; the employer brand and the messages were the same for all potential applicants. As a result of these undifferentiated marketing activities, online recruitment may produce many inappropriate applications (Taylor, 2006). Therefore, a sound understanding of the labor market and its online channels is important for segmenting this market and targeting Web sites with the highest probability of reaching the best candidates. Analytic concepts that are broadly applied in the marketing of products and services in the pharmaceutical and other industries (e.g., finance industries) have demonstrated that it is possible to use Web analytics to identify and target ideal candidates (Bloching et al., 2012). Contrary to other industries, Web analytics has not been widely used by HR in the pharmaceutical industry.

4.9.3 The Availability of Data-Mining Tools

Similar to findings of the Chartered Institute of Personnel and Development (CIPD; 2013), the HR analytic capabilities in all corporations in this study were at a basic stage or, in some

cases, nonexistent. Rothbard (2013) describes the emergence of potent data-mining techniques that could potentially change high-potential recruitment. Manyika et al. (2011) assert that having rapid access to data is essential to HR, and the CIPD report on talent analytics and HR found that “the promise of talent analytics and big data is that they almost certainly will move HR forward in terms of analysis and insight” (p. 6). The use of data-mining tools would contribute to a more effective analysis of performance data. This analysis of performance data could identify groups with superior contribution in the company (e.g., high potentials recruited from certain universities). With these data-mining techniques, high-potential traits can be ranked and combined, creating a rule defining high-potential profiles. Based on their use in other disciplines (e.g., longevity of cancer patients and length of hospital stay in the medical profession and success of pilot training in the military), algorithms are known to be more accurate predictors of success than the subjective impressions of professionals (Kahneman, 2011). Using algorithms to find the right high-potential profiles in the segmentation of the labor market can be expected to be a better predictor of fit with the company than the selection of high-potential candidates by HR professionals in interviews later in the process. Recruitment interviews are described as having low predictive validity for the assessment of fit (Cable & Yu, 2007; Heneman & Judge, 2003; Sutarjo, 2011). Kahneman posits that the predictive outcome of algorithms is especially better than subjective impressions of professionals in low validity situations in which there is a delay in feedback or feedback is sparse. This study in the pharmaceutical industry showed that feedback about the future performance of high potentials was low. Additionally, as recruitment is usually an entry-level function for HR professionals, most have had little time to build expertise. Therefore, the use of data-mining techniques to build search algorithms may be very beneficial. However, none of the interviewed corporate HR professionals used such analytic tools, thus potentially missing important information to optimize the performance of the company.

Databases have been used by all professional and corporate recruiters in this study to evaluate profiles of potential candidates in proprietary or public databases, but the analyses are mostly limited to simple key word searches on skillset and work experience. One professional recruiter noted:

We have a management information system . . . the researchers are loading the candidates on the system [for] this assignment, and we can check their background . . . [and whether or not] they meet our parameters. . . . Researchers follow up . . . [and] do a profile that contains a summary of the candidates’ experience, the reason why they are interested in the role, technical fit, and why we think they are good for the role.

The use of the capabilities that technology and data-mining and analysis tools offer were influenced by the attitude of HR decision making.

4.9.4 Summary of Technological Capabilities

Corporate and professional recruiters reported three technological innovations that were significantly changing the recruitment of high potentials. First, the emergence of social media networks such as LinkedIn or Facebook allowed for easier identification of certain characteristics of high potentials. For example, targeting high potentials based on education or current employer has become easier, thus transforming the recruitment industry. Second, the Internet offered companies a powerful channel for promoting company and employer brand as well as available employment opportunities. Third, data-mining tools allowed HR to segment high performers and high potentials and to recruit accordingly. However, the adaption of these data-mining tools by HR departments in the pharmaceutical industry was modest. As competition for high potentials and the pressure on profit margins in the pharmaceutical industry increases, an HR department's proficiency in effectively and efficiently using these instruments will become a competitive advantage.

4.10 Category Two: The Scarcity of Certain Groups of High Potentials

The scarcity of certain groups of high potentials was an important category in the emerging grounded theory of this study. Ulrich and Brockbank (2005) state that staffing is "probably the single most importance HR practice" (p. 99), and the ability to have access to certain (scarce) groups of high potentials was mentioned in the present study by 8 of the 11 corporate interviewees (73%) as key for their companies. The scarcity of certain groups of employees was largely determined by two main dimensions: (a) the absolute scarcity (in certain situations, only a small number of high potentials from specific groups are available), and (b) the ability to have access to channels to reach these specific groups of high potentials better than other organizations.

Two groups of high potentials were deemed scarce: those with a background in clinical development and engineers. In the pharmaceutical industry, these are highly specialized professions. According to one interviewee: "In biopharmaceuticals, you're talking about key roles. Many of those roles, there's five or ten people on the entire planet that are right for those roles . . . and I am not exaggerating." One recruiter noted that when looking for sales engineers, "looking for people who have engineering backgrounds who also have an interest in or already have experience in our industry is challenging."

Members of these groups are in demand and, as a result, they often do not actively apply for jobs, and instead, wait until they are contacted for recruitment. One recruiter stated:

We also know that, for instance, engineers—they don't need to apply because they don't have to, right? So, we go out to, let's say different social media channels, get in contact with candidates or with engineers who do align themselves in these social media markets. We contact them and ask them whether they would be interested in talking to us, maybe not for

this year but maybe for next year.

Another interviewee described a situation in which the scarcity of a high potential forced the HR department to reinvent itself:

Our biggest challenges have been in clinical development where . . . there simply have been more jobs than there are applicants for jobs and the applicants can be quite, quite picky. . . . There is a real need in disciplines like that to be very creative and be very innovative and try a number of things and see what works. That's what we did in crisis. . . . I found that when we weren't under tremendous pressure, we stopped doing some of the things that had made us successful, and I think that somehow that's in the nature of many staffing people who are highly transactional and just want to do things.

Further, competition for certain groups of high potentials can lead to a relative scarcity. Ulrich and Brockbank (2005) assert that if an HR department “creates human abilities and organizational capabilities that are substantially better than those of the firm's competitors” (p. 6), only then it be referred to as a source of competitive advantage. For Wright and McMahan (1992), the ability to acquire different human resources is a competitive advantage if four criteria are met:

- a) the resource must add positive value to the firm, b) the resource must be unique or rare among current and potential competitors, c) the resource must be imperfectly imitable, and d) the resource cannot be substituted with another resource by competing firms. (p. 301)

All four criteria were met in the recruitment of high-potentials with engineering or clinical development backgrounds. The challenge for the recruiter is to identify high potentials and hire them. Two of the four (50%) interviewees from biotechnological companies described ways biotechs attempt to target and “steal” key people from their peers. Professional recruiters described their efforts to understand the structures of companies to target the right people.

One prerequisite for access to recruitment channels was the knowledge of where to find members of these groups. Four (27%) of the interviewees believed knowledge was at the core of recruitment, while six (40%) say knowledge was important. An interviewee from a large pharmaceutical company described knowledge of the labor market as the key competency:

I mean, we work in this business for quite a long time, so we know our candidates' market quite well. We know exactly where and what we have to do to find, let's say, engineers, pathologists, scientific experts. So, this is our main competency.

Only 5 of the 15 interviewees (33%) explicitly mentioned market research or market mapping as an element of the recruitment process. The other 10 interviewees (67%) mentioned that information gathering (with a focus on networking)—through social media or participation at pharmaceutical conferences—was an important part of the recruitment job:

- “[If you're] interested in someone, understanding their background . . . that kind of knowledge or information is essential and you want to have [it].”

- “To be present through LinkedIn and the equivalent in other countries . . . and Xing is one part. And the other very strong part is the events and conferences.”

The findings of the current study suggest that most pharmaceutical companies do not systematically acquire market information, with the exception of benchmark reports for compensation and benefits and individualized applicant information. However, examples from three interviewees (20%) demonstrate that the market information was available or possible to collect. One corporate interviewee (9%) mentioned a project in which an external agency analyzed the structure of the market and identified places where potential candidates could be found, noting that “we hired, essentially, an ad agency to go out and tell us where on the Internet we were most likely to find the people with those skills. . . .” A professional recruiter (25%) described how her company simultaneously collected background information about the companies and identified potential candidates within these organizations:

We also benchmark our company with other companies. We share our critical target groups with other companies. So, we know exactly, also due to demographic analysis, which critical target group will be difficult to find in the next couple of years. . . .

An interviewee of one of the three larger companies participated in a project that collected and exchanged data on certain hard-to-find target groups and that made projections about the scarcity of these target groups into the future. She explained:

We have to figure out who sits where, what are their profiles, but what are people up to . . . what groups are busy restructuring, which emphasis, which focus. . . . We could, for example, look into market access mapping exercises and see [which] companies are forward thinking. So we would look at real-world evidence data.”

Except for information gathering in college recruitment and benchmark reports on compensation, the information about the labor market is almost always personalized. The knowledge of the market is a network of contacts that has grown over time through contacts at conferences, competitive intelligence, and word of mouth. According to one professional recruiter:

I don’t want to go into that too much, but they would phone companies and do all kinds of things . . . they are organizing conferences, they also use open source tools like LinkedIn, but never only open source tools, it’s always a combination . . . and then they also know people within companies . . . a network they tap into.

Seven corporate interviewees (47% of all interviewees) and the three professional recruiters (20% of all interviewees) also described market mapping as a process of identifying individual candidates and building networks themselves or through specialized agencies:

- “[Through] market mapping, talent identification . . . potential candidates are identified or potential openings are identified.”
- “We all have a talent map with people we follow.”

- “I said to my team, you have to make at least 250 phone calls a year. It does not matter if you have an opening or not. You have to make these phone calls, just to know what they are doing, to find the most interesting 30 or 40 people in your environment.”

More than 90% (14) of the interviewees focus on targeting through networking, building talent databases, and developing talent relationship management systems. Most of the interviewed recruiters (14 of the 15; 93%) have built and maintained proprietary database systems with talents. A database with potential applicants was the most important recruitment instrument of the recruitment function. Within the larger companies, recruiters noted that they share databases:

We have pooling of our candidate pools, or not pools—it’s more of a kind of exchange. So that they, who manage for that area, if they know they have a number of scientists they will need, they can talk proactively to candidates.

Companies use a variety of recruitment channels to identify and source high potentials. They include college recruiting (73%), employee referral programs (55%), the Internet (100%), and networking (90%; e.g., social media, congresses, and fairs).

College recruitment is a major activity. Cooperation with universities and business schools is widely used to recruit scientists and engineers. Companies maintain strategic relationships with universities and business schools to ensure a continuous stream of potential candidates. The eight interviewees (73%) who are involved in college recruitment use recruitment instruments varying from advertisement to internships. None of the eight interviewees expressed an evidence-based preference for specific college recruitment instruments, though Collins and Stevens (2002) and Collins and Han (2004) found that different instruments yield different results in terms of applicant numbers and quality. The use of certain instruments is usually based on the past experience of the HR professionals with these instruments.

Universities are segmented based on various criteria such as reputation, specialist discipline, and geography, and specific universities were targeted. Two (18%) companies focus mainly on reputation. One HR generalist noted:

Recruiting high potentials, I guess the only thing that I would say is that . . . there is an intellectual threshold that has to be matched, and . . . one of the ideas is that if we’re going to go recruit really smart people, who [have] high potential, where we are going to find them, and it’s the idea that colleges and universities carry that out better than anybody else. If you’re recruiting college graduates, you’re not going to go to some no-name university [that] doesn’t have a very strong academic reputation. You better go to a place like Harvard or Yale, Oxford or Cambridge, because the intellectual threshold for [those places] is so high that in order to get in there, you’d have to be somebody.

One recruiter from a large company stated: “we also recruit researchers from not-so-important universities, of course, but they are really big ones like MIT, for instance, or the Technical University in . . . where we have just had fantastic experiences with our researchers.”

Universities are sometimes segmented by academic disciplines and fields of specialization. Six interviewees (55%) reported selecting universities based on specialty and the targeted positions. According to one recruiter, “there are certain universities that do work and research in all the types of work that we do, and so obviously, we’re very interested in those.”

One interviewee (9%) from a large pharmaceutical company mentioned that the increasing pressure on margins in the pharmaceutical industry had created cost-cutting pressure on college recruitment programs, as college recruitment is rather expensive (Breugh, 2013). None of the 15 interviewees mentioned that this also led to a review of the effectiveness of the used instruments.

Two of the four interviewees from biotech companies (50%) mentioned the importance of cultural similarities between biotech companies for the recruitment of high potentials. In these companies, targeting potential employees was focused on those competitors that have profiles similar to the recruiter’s company. “Poaching” is done on all levels and for different functions. Biotech interviewees stated that their companies preferred to hire people with experience in similar companies, as these candidates already possessed the knowledge and experience to be productive quickly. Two interviewees reported good results from this method, contrary to the findings of Hatch and Dyer (2004), who found that the recruitment of senior management from competitors provided inferior results compared to the recruitment and internal development of high potentials. The significant similarities of the biotech companies’ cultures and organizations may facilitate a more efficient transfer from one company to another than in other, more dissimilar, settings.

Another targeting and recruitment tool used by 6 of 11 corporate recruiters (55%) was employee referral programs. Four of the six interviewees (67%) considered this an important recruitment tool, while two (33%) reported success rates below 5%. The fastest-growing biotech company and a mid-size pharmaceutical company reported higher employer referral success rates (>30%) compared to larger pharmaceutical and slower-growing companies. The reasons for success were unclear. It may be possible that the success of these companies made it easier for them to attract new employees by word of mouth from current employees. Also, the companies with high employer referral success rates emphasized P-O fit. Employees recruited through a referral program can better decide on a personal match between their own attitudes and the company culture (Taylor, 2010) because of better familiarization with the company’s culture. Similarly, Baron and Kreps (1999) emphasized the importance of employee referral as an instrument for recruitment with a fit to the organization, noting that “a social tie to an existing employee provides a ready-made avenue of socialisation, training and social support for the new hire” (p. 342). The relatively low cost of using employee referral programs was not the main driver for the two companies with high employer referral rates; these companies invested effort and resources in recruitment equal to or greater than in the larger companies. The lack of emphasis of the larger companies on employee referrals was

surprising, as the advantages of employee referral are described by Breaugh (2013): “in comparison to non-referrals, persons referred by current employees were superior in terms of application credentials, were more likely to be hired, and performed at a higher level” (p. 399).

Recruitment methods like referral programs may be regarded as nonsystematic informal segmentation. The market is segmented based on a direct or indirect affiliation with the company. Recruitment through referrals can also be regarded as segmentation based on similarity to the current company culture and employees. The companies in this study differed on the type and level of targeted employees, the extent of the program, and the success rates. Major differences were observed regarding the most eligible potential employee populations that may be recruited through employee referral programs. One interviewee from a biotech company (9%) described how the company engaged the networks of their senior leadership teams to target and attract key people:

We engaged the networks of some of our best, and we engaged in the topic of the key talent that we need to go where we’re going and where we want to go, and we went out and . . . had a multifaceted approach of the leadership team to bring in [specific employees or employee types].

Three recruiters (27%) also used referral systems to identify and target very scarce groups of high potentials with a very specific (scientific and or engineering) background:

We found that the best kind of world-class people that we brought into organizations on a sustainable basis year after year came from the networks of all those people. In other words, I need leaders to understand that the way that we’re going to find the best people is to ask the best people who the best people they know are.

However, one biotech interviewee stated that his employee referral program mainly targeted the normal groups of employees: “It’s certainly not in the high potential positions, more the normal jobs.”

The annual success rates with employee referral programs varied greatly, from 1% to 40% of new recruits. Although information about the success rates of external recruitment sources was scarce in the recruitment literature, these rates were lower (except the two companies with the highest success rates) than reported figures from other industries. A possible explanation might be the uniqueness of certain roles and disciplines in the pharmaceutical industry. Large pharmaceutical companies often focused on specific indications, which might make a transfer from one company to another more difficult. Both companies with high employee referral rates in this study were mid-size, had high growth rates, and had HR specialists who emphasized the importance of the company culture. Another reason might be that employee referral programs were given a higher priority in these companies to attract a homogeneous group of employees.

In a survey of U.S.-based companies with at least 5,000 employees from various industries (e.g., retail, transportation, technology, manufacturing, pharmaceutical, and finance), Crispin and Mehler (2009) found that 27% of external hires were made by referrals from employees, vendors, and alumni. Referrals were reported as the most important source of external recruits. Similarly, the range of reported success rates was very broad based on the research methods used. Also, both the reported numbers in this study (1–40%) and the numbers from Crispin and Mehler’s survey were interviewees’ estimates and not direct observations; actual numbers might be more or less similar and offers potential for future research.

Although the Internet was used by all companies to post open positions, this channel was not specifically used to target high-potential applicants. In the present study, the most important source for identification and sourcing of these high potentials were networks of professional and corporate recruiters created through word of mouth, social media, congresses, and meetings. One interviewee from a large pharmaceutical company noted that her company’s “proprietary database . . . contains people that we have had some sort of relationship with; we’ve either contacted them or they’ve contacted us, or something of that nature.”

The interviewees from companies that had a basic understanding of the market, its channels, and the information needed by the targeted employees used a wider portfolio of targeted recruitment tools to attract the target population (e.g., cooperation with universities, targeted advertisement) than the companies that did not conduct any market analyses. This finding was independent of the organization form of the recruitment function (in-house or outsourced). This finding was instead associated with the level of market knowledge the company had. It may be theorized that insight into the market and a wider portfolio of high-potential recruitment instruments stemmed from a common goal: the need for a scarce resource. However, it was not evident from the data how the causal relationship between market knowledge and used instruments works. Another question for future research may be: Does market knowledge lead to the use of a wider variety of recruitment instruments or does using more recruitment instruments lead to better market knowledge?

4.10.1 Summary of Scarcity of High Potentials

The scarcity of certain high potential groups was mainly determined by two elements: (a) the availability of certain groups in the labor market and (b) the access of a company to certain recruitment channels.

Clinical researchers and engineers were mentioned by four interviewees as “hard-to-find” groups of high potentials. Finding people from these groups who fit the culture of the company can present some real challenges for HR departments. Access to these high potentials differed by company. The interviewees from the fastest-growing company and a large pharmaceutical company that recently fully in-sourced the recruitment function were

very knowledgeable about their labor market and use sophisticated marketing and recruitment instruments, whereas two of the eleven corporate recruiters (18%) have only slightly developed in-house sourcing competencies and therefore outsource the sourcing process. The sophistication of the HR department and the level of outsourcing were largely independent of size. A systematic analysis of the recruitment channels and the output from these channels was rarely done; channels were used based on customary and available competencies in HR.

4.11 Category Three: HR Attitudes, Opinions, and Strategies

HR attitudes, opinions, and strategies are also important in this study's emerging grounded theory of implementing segmentation and targeting to recruit high potentials in the European and American pharmaceutical industries. Several factors were mentioned as having an impact on the HR attitude and strategy regarding high-potential recruitment. Some of these factors facilitate the use of marketing instruments such as segmentation and targeting, while others hinder their application. The five factors most mentioned by the interviewees were:

- HR's perspective on the key business drivers (related to the perception of the key business drivers by the management of the company);
- HR's perception and definition of recruitment and human resource marketing;
- HR's level of professionalism and standardization;
- HR's versatility with data and data-mining techniques; and
- HR's self-concept.

4.11.1 HR's Perspective on the Key Business Drivers

Interviewees did not agree on a common cause for success of pharmaceutical companies. Four of the eleven corporate interviewees (36%) highlighted the importance of the people as a key business driver, citing "the right people at the right places" and "the people, the talent, and the leaders that we have," while the other seven corporate interviewees (64%) emphasized other aspects, such as the products, pipeline, and organization of the company. An HR person from a small biotech company highlighted innovation as the key to success, specifically, "innovative approaches in terms of research," whereas the three corporate interviewees from larger pharmaceutical companies (27%) mentioned strategy ("innovation and growth strategy") and specific programs ("fast productivity programs") as key performance drivers. While employees are perceived by these three interviewees as an important building block for developing and delivering innovation and growth strategies and programs; their primary focus is on the innovation and growth programs and systems.

The interviewees view company culture as important for performance, confirming earlier research (e.g., Schneider, 2007). One interviewee (9%) noted that "as an outcome of the global employee survey, a program influencing the culture with a focus on how to manage change" was instituted by the management of her company. Except in the communication of

the corporate employer brand, however, nine of the eleven interviewees (82%) have not used the company culture in the recruitment strategy. These respondents believe that the company culture may be changed by human resource personnel, but not by actively hiring other employees that fit a certain culture or that could enable a culture change. Only two of the eleven corporate interviewees (18%) actively analyze the company culture for the purposes of recruitment. In one company, corporate culture was its main branding attribute; its focus was on hiring employees who fit the culture.

Silzer and Dowell (2010) described a paradigm shift toward a new focus on talent and an increasing awareness that the impact of strategic talent management on financial outcomes will be well known and respected by HR and senior management. However, this was not observed in this study. Although all corporate and professional interviewees agreed that talent management is important and several mentioned McKinsey's *War for Talent* (Michaels, Handfield-Jones, & Axelrod, 2001), only the six largest companies had a formal high-potential management system in place. None of the 15 companies measured the value that talents bring to the company. The HR departments of these companies focused on the short term and did not estimate the potential lifetime value of an employee to the company, despite the increasing importance of the concept of customer lifetime value (CLV) in the marketing field (Reutterer, Mild, Natter, & Taudes, 2006). One interviewee stated that the concept of current performance measurement was wrong and did not adequately incentivize the right people:

Unfortunately, we do not look at lifetime value; we still have very short-term perspective. If you are a complete idiot, but you perform well, you still have higher chances of getting a higher incentive than if you perform on a mid-level but you are a very nice person. [This] is even reflected in the incentive payout matrix, which, in my view, is completely wrong. None of the respondents mentioned any initiatives to change the focus of employee assessment from performance to long-term potential.

4.11.2 HR's Perception and Definition of Recruitment and Human Resource Marketing

Interviewees defined recruitment and HR marketing based on the vision of HR. This vision influenced the application of marketing instruments in the recruitment of high potentials. Recruitment was regarded by four (33%) interviewees as an operational process, suggesting that other HR functions were more strategic and higher level. As one respondent stated, "I know some HR people see recruitment as something they have to do, and then they can move on."

Three of the fifteen interviewees in the study (20%) also highlighted other differences between recruitment and HR, perceiving recruitment to be more similar to marketing and communication. One corporate recruiter suggested that

a recruiter changes much more into marketing/communication management and also IT, because IT tools will be important, as well as sales and PR function, and in classic HR, you have more a caring function: take care of the employees and. . . sell the company in a way [in which] people [will] believe us and is credible. . . . I would describe [my position] as a sales position.

Another interviewee noted that for certain-sized companies “it makes total sense to have sourcing and recruitment separate from HR, because it’s a different approach; they are different people in recruitment and HR.”

Seven of the eleven corporate interviewees (64%) mentioned that the recruitment function within a pharmaceutical company was often seen as the starting point of a career:

- “I started in the recruitment area, built my experience as a staffing manager, and then moved to a more general position.”
- “In my past position, there was a lot of involvement in recruitment.”

The context of these remarks suggests that they are related to the image of recruitment within HR.

4.11.3 Recruitment

A range of different definitions of *recruitment* was evident in the responses of the respondents. About half of the interviewees (47%) highlighted its interdependence with other HR processes, such as planning for future skill needs. One interviewee from a biotech company (9%) mentioned: “I see recruitment really as the first step in the process of bringing in a pipeline of people.” Another interviewee from a large pharmaceutical company emphasized the operational perspective of recruitment, noting that “recruitment is a practical-oriented relationship . . . that starts the day that you have the first contact with the person.”

The concept of *recruitment* was often dependent on the position in HR of the interviewees. One corporate recruiter (9%), as well as three of the four professional recruiters (75%), emphasized operational elements within the recruitment process with a strong focus on relationship building and selection. These interviewees noted that “the starting point was making contact,” “making the first call,” and “sourcing and screening, and assessing candidates for various positions within the organization.” However, the three heads of corporate recruitment and three of the seven (43%) HR generalists put recruitment in the perspective of the HR process. For them, recruitment “starts before you have an opening,” is “the first step in gathering all of that data so [you have your] applicant tracking system and things like that where you begin to get information that you can use later,” and is all about “knowledge about the skill pool in the market” and “understanding the environment of the job.”

The working time reported to acquire market knowledge by the (professional and corporate) recruiters in this study suggests that the operational recruiters invest a substantial portion of

their time in collecting information (i.e., mainly sourcing of individuals). One recruiter noted that “80% of my time, I am talking to people mostly by phone actually, and I do research on the Internet to find those people.” Research, however, offers mixed perspectives on gathering information in the operational recruitment function. For example, Breaugh (2008) did not mention the collection of information; instead, he focused on the sales perspective of recruitment. He states that “external recruitment includes the actions intended to bring a job opening to the attention of potential candidates outside the organization and to influence whether these candidates apply, maintain interest and, in the end, accept the job offer” (p. 1). On the other hand, Orlitzky (2007) included the data-collection phase as part of the recruitment process, specifically, “those practices and activities carried out by the organization with the purpose of identifying and attracting potential employees” (p. 273). Only Hemphill and Kulik (2009, 2011) mentioned segmentation in recruitment for rural medical doctors and workers in the meat industry; most research on sourcing in recruitment (e.g., Aycan, 2005; Sabatier, 2010) focuses on recruitment channels such as referrals, college recruitment, or social media scanning and does not cover the collection of market information (e.g., market size, structure, and profiles and attitudes of potential employees) and its analysis. Research on minority recruitment (Avery & McKay, 2006; Yancey et al., 2006) and volunteer recruitment (Wymer, 2002) offers some guidance on ways to effectively and efficiently analyze the market to identify potential applicants. It was interesting to note that none of the interviewees was aware or applied these methods.

4.11.4 Human Resource Marketing

According to Meyer-Ferreira (2010), a systematic approach to human resource marketing included (a) quantitative and qualitative planning of needs regarding number and profiles of employees, (b) a succinct analysis of the recruitment market (market research and segmentation), and (c) the definition of target markets (targeting). Other elements included the design of the employer brand, the communication to current and future employees and customer relationship management. Ten of the eleven corporate interviewees (91%) focused on employer brand development. The employer brand was often regarded as an important recruitment instrument and considerable time and energy is invested in its development. Only the corporate interviewee representing the smallest company mentioned that little effort was made to develop or promote an employer brand.

Integration of marketing instruments other than branding within recruitment varied by organization type; the three largest pharmaceutical companies (27%) in the study had an internal communication plan—as well as a high-potential management system—in place, whereas such systems were most notably absent in the fast-growing biotechs and smallest companies. The interviewees of these companies stated that the absence of these other marketing instruments is due to a lack of resources in HR. Although this is indeed a limiting

factor, one might speculate that the priority setting within the companies was another influencing factor. One biotech company (9%) used internal and external market research to inform its recruitment strategy. All companies used targeting within the recruitment strategy, though the implementation varied by company.

The findings of this study demonstrate that the human resource marketing function was not regarded as part of recruitment by all interviewees; the level of integration varied by company as well. The level of integration of human resource marketing within the HR department was at least partly dependent on the company size. The three largest companies in the sample (27%) have HR employer branding and quantitative planning groups. In two midsize companies (18%), as well as two small companies (18%) and the four biotech companies (36%), the integration of human resource marketing within HR—as far as branding was concerned—varied from “building of the company brand is the core of the recruitment strategy” to a company policy of branding performed exclusively by the communications department with no influence from the HR department. One interviewee (9%) stated: “We don’t have an integrated policy for that with recruitment and communications [being] very independent.”

One company (9%) conducted internal market research to develop its employer brand, although the interviewee did not perceive the activity to be “marketing” or “market research” at the time:

We have a talent brand. Our talent brand . . . really fits in with the company’s purpose, which is to save lives and alleviate suffering in the core hospitals and in acute and intensive care area hospitals that we focus on. So it’s a higher calling. We are trying to attract people who are interested in a higher calling to something more. . . . But what really happened was they talked to virtually everyone in the company and got from them all the things that they loved about [the company] . . . and then we have taken that and built up our brand, our employment brand, and, to a certain extent, our company brand. . . . We didn’t know we were doing it, but we did do essentially a marketing and branding study.

On one hand, the information collection side (market research and segmentation) was largely neglected in research (e.g., DGFP, 2006; Felser, 2010; Hagen, 2011), except for the collection of individual potential applicant information through networking and college recruitment. On the other hand, targeting was a core concept within the marketing literature, well known in the recruitment process, and used by the corporate and professional recruiters. The majority of the interviewees in this study (12 of the 15; 80%) described it as being similar to the sourcing of candidates through networking; only three interviewees (27%) included targeted messaging in this concept. Corporate and professional recruiters used similar tools to build their network: social media screening, visits and observation at congresses, booths at fairs, and through cooperation on projects (for high potentials with a science background). The only networking activity mentioned by half of the four (50%) professional recruiters, but not the corporate

interviewees, was “undercover calls” to companies, where professional recruiters try to gain insight into the “who’s who” of a company without identifying themselves as a recruiter.

Three of the largest pharmaceutical companies (27%) systematically screened the market for certain capabilities—or let specialized agencies do this—and follow identified persons over a considerable time. When they had an open position that fit the profile of a potential candidate in these talent pools, they approached that potential candidate as a possible hire. One recruiter noted that “we recruit in anticipation of a position . . . to have a pool for candidate gaps.” Another recruiter explained:

Sometimes I try to build talent pools proactively . . . with candidates [from] cold calls or [observing] them where they are; and this is . . . strategic outsourcing of staffing. . . . We pay for this service, but have a long-term contract with these agencies working in this area because this is something you can’t just do between midnight and 6:00 AM if you take it seriously. We track skills that these people have and if they match a talent pool, we define what we see as necessary skills for the future and then we see people who match that and how many could really be a participant in such a pool. If you see there are not many, then you have to make up your mind on what to do from there.

Segmentation in human resources was practiced by 10 of the 11 companies represented by corporate interviewees (91%), but this concept was neither well known nor well defined. Segmentation as an activity in structuring and grouping the external market was known by only two interviewees (18%). The broad variety of definitions in the marketing literature is one possible explanation for this lack of knowledge. If interviewees referred to segmentation or grouping of employees, they referred to internal processes (see Cantrell & Smith, 2010; Ferguson & Brohaugh, 2009). Even in college recruitment, where segmentation was practiced by 8 of the 11 corporate interviewees (73%), none of them referred to this process as *segmentation*. In addition to segmentation based on reputation and specialist field, geographical proximity was regularly used to segment universities. The interviewees from the largest two companies (18%) in the study segmented the university market on the perceived skillsets of graduates. The need for future skillsets was systematically analyzed and discussed in these companies.

Eight of the eleven corporate interviewees (73%) pursued segmentation approaches, such as in college recruiting, based on “classic” variables such as sociodemographic (i.e., gender, age, education, etc.) or geographic variables (proximity). One recruiter stated that her company has “a definition of our critical target groups, which means, for instance, engineers are very hard to find, so we select universities with engineering major studies.”

Two of the interviewees (18%) used or planned to use psychographic (e.g., lifestyle, culture) variables as described by Mayer and Illmann (2000). One of those recruiters explained:

We identified . . . the key things about our culture just before our big hiring, and we used the insights from that, which we believed [to be] true because it’s what our people told us.

We . . . thought it would attract the kinds of people that we wanted to come into our company and [who would] not mess up the culture.

The implementation of marketing instruments was independent from the recruitment and marketing definitions used by the companies and alignment between these two functions. However, a clearly defined role for human resource marketing within HR and recruitment would support a systematic approach of the recruitment of high potentials. Integration of marketing principles (e.g., planning based on market insights) in the recruitment of high potentials could make recruitment of scarce groups of high potentials more effective, thus confirming Kotler and Armstrong's (2010), suggestion that market understanding could assist in targeting specific groups and building a competitive advantage.

4.11.5 Professionalization of HR: Sophistication, Standardization of Processes, and Centralization of Decision Making

Recurring interview themes included the decentralization of decision-making, the standardization of processes and systems, and the level of planning sophistication. Interviewees from the three largest companies in the study (27%) described some sophisticated tools and processes to manage succession and high-potential development. As might be expected, smaller, and often younger companies, generally had simpler, less diversified processes. The four midsize and smaller companies (36%), as well as the four biotech companies (36%), had a much more short-term focus. Succession plans were rarely in place, and high-potential development was often delegated to line management without a guiding policy from HR. If available, succession planning included only an emergency plan, not a systematic assessment of current and future needs (Rothwell, 2010; Wright, 2010). Interviewees from the small and midsize companies mentioned the daily pressure to continually change to match developments in the company as the reason for the short-term focus of their HR departments. Although the primary objective for centralization of the structure and standardization of the processes were productivity gains (reduce redundancy) and improvement in quality, it was also mentioned as an important factor for the emancipation of recruitment practices. Those companies that did not have centrally accessible information (through centralization and standardization) were unable to analyze the information. The ability to process information was a prerequisite for extracting key performance drivers from the pool of performance data. This information about the critical performance factors/positions in the organization was necessary to search for these characteristics in the external environment.

The lack of standardized tools, processes, and databases, and the existence of too many complicated HR tools were mentioned by two interviewees from the three largest companies (67%) as an element that impeded organizational progress in HR. One interviewee stated that "every business unit has a way of engaging talent and performance," and "we still can't push

one button and then have a report on whatever you want.” In the larger pharmaceutical companies, however, the trend moved in the direction of centralization (structure) and standardization (processes). Cost pressures and the changing business model of pharmaceutical companies (see Steiner et al., 2007) has led to a stronger focus on efficiency in these larger pharmaceutical companies and subsequently an increased emphasis on standardization and centralization. An interviewee from a large company suggested that the “delivery model of HR has changed significantly; so we have not had any centralized service centers in the past,” but that they now “will move staffing, compensation and benefits, and training and development into centrally organized centers of excellence” so “that we have a consistent approach in the organization.” A recruiter explained how centralization puts her company at the forefront of the industry:

Why our group is so unique is the ability to have a global goal of the functions that we manage and beyond where we are almost bridging the gap from where we want to be . . . recruiting in different regions . . . for positions where we can successively share candidates if we are not working so decentralized where candidates are here but not there. . . . We are working together, and we have one goal: filling the critical roles. And everything is being communicated through a uniform candidate experience.

This level of centralization and standardization was associated by the respondents with a different set of HR competencies. Two interviewees from large companies (18%) stated after centralization, some people who had functioned well in the decentralized environment had to leave because they were unable to function well in the new setting.

This study revealed a gap between the largest companies and midsize to small biotech companies regarding the (standardized) internal planning tools and systems they used and their planning horizon. The main reasons for this different perspective on standardization and long-term focus were a lack of resources in the HR department and a lower perceived need based on the scope of the smaller companies. Younger organizations had less diverse HR tools and systems in place.

No differences were reported regarding the needed requirements for a certain job or task. The level of education and subsequent training of the HR professionals was not related either to the size of the company or to the seniority of the interviewees. Fourteen of the fifteen interviewees (93%) had university educations. The *competency level*, or behavioral repertoire to cope with situations (Kurz & Bartram, 2002), differed slightly between the HR professionals in the three largest companies (27%) versus the four in biotech companies (36%) and the four in the small and midsize companies (36%). The difference in required competencies was expressed in the used vocabulary. HR professionals in the larger companies used phrases such as “importance of internal programs and processes,” “structural change,” and “compliance and efficiency,” while HR professionals in the smaller biotech companies emphasized the ability to be flexible and find solutions for situations that work. Research

supports the finding that the formalization of people processes is less of a priority in smaller organizations in their quest to survive (Taylor, 2006).

The 11 corporate recruiters also differed on their level of identification with the company and profession. Glaser (1998) proposed the possibility that personal identities merge with properties of the working environment so that members of that organization

know who they are in terms of organizational goals, morality, process. Their behaviour is funded, their position vested based upon a combination of fictions and truths. Their position is carefully fit into a social structure of authority and division of labour, their position . . . bounded and it is difficult to break through the boundaries. (p. 173)

While it is possible to maintain both strong professional and organizational identities (Zabusky & Barley, 1997), the 11 corporate interviewees identified themselves more strongly with either the profession or the company. The four interviewees from biotech companies identified themselves strongly with the company and the objectives and norms of the company. The HR respondents from the non-biotech pharmaceutical companies identified themselves with the profession. This identification was sometimes directed to sub-specialties, such as recruitment, rather than HR as a generic profession; two (50%) differentiated strongly between their role as a recruiter and those of other HR professionals.

One reason for the variation in identification may be the evolving concept of HR management. Ten of the eleven corporate interviewees (91%) expressed the importance of being perceived as a partner, an internal consultant to senior and line management instead of an administrator, consistent with research (Caldwell, 2003; Ulrich & Brockbank, 2005; Wright, 2008). Other aspects of the new emerging HR profession profile included being a change agent, ensuring employee engagement, and increasing organizational efficiency (Ulrich & Brockbank, 2005). These aspects were mentioned by two of those ten respondents (20%), who emphasized the importance of being a partner. Eight interviewees (80%) interpreted being perceived as a partner as being adaptable to the requirements of line management. Wright (2008) found that the self-definition of HR as a consultant or partner to the business has diluted the occupational identity, as it expanded the boundaries for people with other professional backgrounds such as marketing, information technology, and operations. Contrary to findings in the nursing profession (Nathaniel, 2003), interviewees in this study verbalized the need to be integrated with other parts in the organization and expressed little focus on the professional HR norms and theories. The lack of a developed identity of HR and, specifically, the recruitment function, may be a hindrance to the adoption of more sophisticated recruitment tools. The focus tended to be on partnership with line management rather than building a set of specific competencies in the profession.

4.11.6 HR's Versatility with Data and Data-Mining Techniques

The interviewees revealed that an affinity for data analysis was often limited in favor of focusing on relationship management. Research (IPMA-HR, 2011) suggests that HR struggles with gathering data about their employees. Similar to health care, in which people do not have the capabilities for collecting and analyzing large amounts of data and external professionals are therefore hired to solve problems (Higgins, O'Donnell, & Bhat, 2012), HR professionals often lacked the ability to analyze and sort data.

When prompted, all the interviewees acknowledged the wealth of HR-related data, (e.g., performance data) that was available within their companies. One interviewee from a biotech company (9%) spontaneously suggested a future scenario in which HR could drive the performance of the company through input of aggregated HR evidence into the management decision process, though none of the 11 corporate interviewees currently used these performance data in the aggregate form to improve company performance.

Performance data can be analyzed on two levels: individual performance and company (or organizational entity) performance. Although individual performance was measured and recorded in all companies, none of the companies used this information beyond individual assessment. In small companies, this may be due to a lack of resources. However, none of the three interviewees from large multinational companies, all with high investments in human resources, used this information, even though the following prerequisites for doing so are fulfilled:

- Individual performance data were available.
- People were regarded as a key business driver.
- Understanding the drivers of the employees' performance (be it characteristics of the groups of performing employees or the context in which performance thrives) was necessary to be able to manage this performance beyond the individual level, which could potentially be a strong competitive asset.

Nevertheless, none of the corporate HR professionals were aware of their companies either performing these analyses or planning to do so in the future, nor were the four professional recruiters aware of any company performing these analyses.

The preference for HR instruments that are independent of data gathering and analysis can also be observed in the external recruitment market. Instead of analytical approaches, networking was the preferred approach. Eleven interviewees (73%); the four professional recruiters as well as seven of the corporate interviewees) did not differentiate between networking and market analysis. Networking was their main source of market knowledge. This finding confirms research from the CIPD (2013), which revealed that HR people generally prefer to work on relationships and context but feel less comfortable with analytic approaches. HR's approach to analytical issues was characterized by suspicion and skepticism.

4.11.7 HR's Self-Concept

Interviewees had different perspectives on HR functions. An HR department may be perceived as either an administrative human resource function or a business partner within the company. Descriptions of the administrative, transactional function of HR indicated that the administrative role of HR was perceived as rather basic, noting that there is “a lot of admin stuff they actually do” and that “it is very reactive.” The interviewee from the smallest pharmaceutical company pointed out that “what really is an indicator for a successful human resource department is [tackling] topics that are outside of what you have to do [to] to be a service provider.”

HR was also a partner or internal consultant within the company; the focus was on helping line managers to make a difference. One interviewee from one of the largest European pharmaceutical companies described HR as providing added value to their company “by helping them finding the right people for the right positions and developing and training people”; in essence, HR’s “core responsibilities” served to “free up resources for the business partners.” Similarly, a recruiter from a large U.S.-based pharmaceutical company noted that “we like to position ourselves [in such a way] that we can anticipate needs that are critical for their roles, [and] that are impactful for the business unit.”

These two roles—administrative and partner—were considered hierarchical; the administrative role was the base for the partner role. This view was shared by all operational corporate and professional recruiters and heads of HR. The interviewees’ self-perceptions of HR at their companies as administrative or strategic were not dependent on the size or geographic scope of the company. All interviewees believed it was important to be regarded as a business partner by the line managers, with a focus on the ability to understand the business better. They noted that “HR is in constant communication with the board members” and that “quality in HR is having people for a meaningful time in a position . . . because you can bring a lot of added value as a business partner when you know the business or function.”

These statements reflect Ulrich and Brockbank’s position (2005), which emphasizes the importance of judging the added value of HR from the perspective of the recipient. Ulrich and Brockbank highlight the importance of an integrated approach similar to marketing, in which a value proposition for a product is developed considering all elements of the product; they propose an HR value proposition that reflects all aspects. However, eight of the eleven (73%) corporate interviewees focused on single elements of their service to line managers; being regarded a partner was less a strategic question but more a tactical one. In most cases, an integrated long-term vision and systematic approach was lacking.

One interviewed head of HR—who originally came not from an HR but from an operations background—observed that HR employees often did not have experience in other functions, which potentially might make it more difficult to have insights into what was needed: “A lot of the HR people grow up in HR . . . who just do it the way they’ve always done it.”

Similar to Kaufman's (2007) observation that "still many companies continue to practice people management in a largely tactical, administrative, and cost-focused manner" (p. 42), three of the four professional recruiters (75%) observed that HR is currently unable to establish a partnership with line management and remains purely transactional. One noted that HR is "just too slow. . . . They don't get into a partnership with the line managers." There was a gap between the corporate interviewees' aspiration to be perceived as a business partner and the professional recruiters' observations of the reality of HR.

Nine of the eleven (82%) corporate interviewees mentioned that HR did not make the final choice regarding the type of employees who were recruited; HR and the recruitment function were only responsible for the process. The line manager decided who should be recruited based on input and advice from HR. Some of the corporate interviewees stated:

- "We're not viewed as an HR all inclusive; to attract and retain world-class talent. HR needs to make sure that the outcome is achieved and . . . what the key variable is, but it is recognized throughout the organization that obligation sits with line management."
- "[Our goal is] helping them find the right people for the right position."
- "[HR's] added value is helping them finding the right people for the right positions [and] developing and training people."
- "[With regard to] talent management, well, there are suggestions, but this comes mainly from the line manager."
- "When the line manager is making a decision about who is put in the role, make sure that they are thinking about the capabilities necessary for the role and the development opportunity that the role provides."

Although all interviewees perceived the availability of human capital as key for a company, 12 of the 15 interviewees (80%) did not mention HR as a differentiating competitive factor. This finding supports Uren's (2012) observation that the HR attitude was different from other business functions:

You wouldn't contemplate having a strategic plan that was the same as your competitors, or a marketing strategy based on "best practice"—so why is it that "best practice" and "sector comparison" are the default methods used to create talent management strategy? (p. 4)

However, the other three interviewees envisioned situations in which HR would eventually become a data-driven strategic competitive advantage for the company. One respondent described how HR—through analysis of the company culture and subsequent change of recruitment practices—had become a driving force in setting the strategy for the company, which had led to a competitive advantage.

Ten of the eleven corporate interviewees (91%) noted that their HR departments aimed to be business partners and tried to support line and senior management. However, the level of involvement in management and strategy differed considerably between the companies. A higher level of reported involvement in partnering with line management and strategy setting

was associated with a higher probability of the use of the more sophisticated marketing tools. This finding suggests that the implementation of more sophisticated marketing tools requires an HR strategy and vision.

4.11.8 External and Internal Influencing Factors on HR and Recruitment Practices

HR actively influenced the use of marketing tools in recruitment and environmental and business factors. Therefore, potentially confounding environmental and business factors (e.g., Aycan, 2005; Liebermann, 2009) were discussed with the interviewees to understand their potential impact on HR and recruitment practices. According to the contingency theory (e.g., Schreyögg, 1995), business characteristics such as organization size, level of globalization, and workforce diversity, as well as environmental factors such as legal environment and changing pharmaceutical business environment, influence the used concepts and structures of an organization. Thus, some characteristics of the company and the business environment influence the goals, attitudes, structures, and processes of the human resource function and, specifically, the recruitment function.

Organizational size was one factor that influenced structure and processes in companies: a larger company size allowed for specialization of departments as well the ability to in-source certain functions and services (Liebermann, 2009). In this study, limited evidence was found linking company size with recruitment practices. While the smallest company had the least sophisticated recruitment strategy and no talent development program, it was not the largest companies that had the most sophisticated recruitment processes. Although a minimum size (one interviewee [9%] mentioned a minimal company size of 500 employees) may be necessary for in-sourcing the recruitment function, midsize and large companies used in-house recruitment or outsourced recruitment functions irrespective of size. Other factors may be more important (e.g., volatile demand, strategic considerations, and access to specific recruitment knowledge of certain agencies). Strategic considerations were mentioned regarding the benefits of outsourcing and in-sourcing.

One interviewee from a small biotech company spoke about the benefits of outsourcing:

I am a firm believer of outsourcing a substantial component of the recruitment kind of function within the HR organization, because if you outsource it the right way, you provide your organization access to a broader network of potential candidates.

Another interviewee from a mid-size pharmaceutical company described the benefits of in-sourcing:

If you find a suitable candidate with your own resource in the market, all the candidates you were contacting stay with you. If you give that to an external company, you only get one candidate, so you pay for each candidate.

Globalization is another major theme in the HR literature. Internationalization and globalization influence HR and recruitment practices (Aycan, 2005). Differences in national and regional culture may influence the preference for different recruitment channels and criteria (Budhwar & Khatri, 2001). The 15 interviewees had experience working in global or multinational environments. From the 15 interviews, the influence of globalization on the use of recruitment instruments or recruitment criteria was unclear. No differences were found between those interviewees in Europe and the United States. This finding maybe a result of the geographical scope of the study, as the two regions share a similar business cultures (Hofstede, 2001). Three interviewees from the largest companies (27%) mentioned the importance of geographic flexibility and experience outside of the country of origin for high potentials, and one recruiter from a large global pharmaceutical company noted that “normally, they come from an international environment in which they have gained international experiences, in different universities, for instance.” A recruiter from another large pharmaceutical company also cited the importance of multinational sourcing, or the ability to have a global goal of the functions that we manage and beyond where we are almost bridging the gap from where we want to be . . . recruiting in different regions . . . for positions where we can successively share candidates [if we are not] working so decentralized where candidates are here but not there. . . . We are working together, and we have one goal: filling the critical roles.

The size of each interviewee’s company influenced the perspective of the interview. This may be attributed to the increased international exposure of HR professionals within the large global conglomerates compared to recruiters working at smaller companies. However, two corporate interviewees (18%), one from Europe and one from the United States, emphasized the local character of their recruitment activities. However, in reality, this sample makes it difficult to draw any conclusions about regional differences.

According to the literature, diversity in a company’s management influences company performance: “national culture constrains rationality in organizational behaviour and management philosophies and practices” (Minkov & Hofstede, 2011, p. 13). However, diversity issues were discussed controversially in the current study. One recruiter noted that it was important to “ensure we have a diverse group . . . of course, always ensuring that it is always the best talent that’s hired,” while another had “a problem with diversity. I think there is too much emphasis on a certain demographic or certain type of people.” Only two of the fifteen interviewees (13%) rejected the idea of setting targets based on diversity, noting that this approach might give the perception that people from such groups would be less qualified if they were selected for positions. One interviewee stated:

we were not going to set those kinds of targets, because we were looking for the best people, and we were finding qualified women, we were finding qualified African Americans, and on and on and on. . . . What usually happens is [that] people begin to make an assumption,

sometimes stated, sometimes unstated, that you are lowering your standards to hire these people.

Another declared that

I have a problem with quota systems, where the female population has to be on the board. . . . I really have a problem, because I think it's a slap in the face to all the other women who get there on their own.

Only the interviewee representing the largest company placed significant emphasis on cultural and geographical diversity. This company embraced a broader concept of diversity: "You have the diversity and inclusion factors, which go far beyond the gender and nationality." It was not evident from the interviews that these diversity policies had an impact on the recruitment strategy beyond targeting gender. Although the majority of the interviewees highlighted the importance of a diverse workforce, all interviewees mentioned that targeted knowledge, experience, and skillset (e.g., clinical development, leadership skills) were more important criteria. According to one recruiter:

They would love me to come up with a woman that ticks the boxes, but if it comes down to the wire, they're going to take the best person. I think it could be that these roles are so important that you have to be right there, regardless of color or gender. But their communication and their Web site shows adherence to corporate governance and diversity . . . they have to.

Taylor (2006) found that the (national) legal framework in which recruitment takes place has implications for the recruitment strategy and tactics. Recruitment and selection are the most closely observed and legislated areas in HR management. In most countries, civil rights law (e.g., equal opportunity employment legislation in the United States) restricts the practices that can be used to target certain groups, if these practices would have a discriminating impact on certain (minority) groups. In the current study, legal constraints were mentioned twice: the limited ability to analyze performance beyond the individual level (one interviewee believes that German unions would object to the analysis of performance on a group level) and the limited ability to target certain groups based on age and race. With regard to the limited ability to target certain groups based on age and race, professional recruiters mentioned that, in practice, it was often clear what a company prefers, even if it was not made explicit in the briefing of the agency.

The interviewees described recruitment practices as an operational (9 of 11; 82%) or strategic (2 of 11; 18%) approach to fulfill an identified need of the company, presenting it as a technical task (see similar views by Taylor, 2006). None of the interviewees discussed potential ramifications of the recruitment policies beyond the company on potential employees and society. The three interviewees who mentioned legal topics highlighted the context of restrictions. However, in discussions about diversity targets for recruitment, remarks were made about fairness and justice. One head of corporate HR and one professional

recruiter pointed out that diversity targets led to perceptions that women were promoted to leadership positions based on quotas rather than their ability to perform. However, two other recruiters (13%) emphasized the importance of fairness considerations and stated that a diverse leadership population potentially delivers better results. The implications of diversity targets were discussed from personal cultural and political standpoints, running the gamut from equal opportunity to individual ability.

In this research recruitment was mainly perceived through a technical lens and workforce planning (diversity) was perceived in a broader (social justice) context. This may be a result of more visible and tangible diversity policies than consequences of recruitment policies. Diversity was visible to all (e.g., the number of women on a board or the number of different ethnic group members in management-positions). However, the consequences of recruitment were less tangible. Two HR generalists (18%) emphasized the importance of the onboarding process, but none analyzed the consequences of recruitment policies (e.g., followed the career of new employees or analyzed the internal impact of recruitment policies). Kahneman (2011) offers the potential explanation that “people tend to assess the relative importance of issues by the ease with which they are retrieved from memory—and this is largely determined by the extent of coverage” (p. 8). As recruiters were not regularly exposed to the long-term outcomes of their recruitment activities, the relative importance of the consequences was rather low.

Without consideration of the consequences of recruitment policies, this function remained separate from the rest of the HR functions. Recruitment remained an operational function in which the used instruments were those that had already been implemented. Thus, a systematic analysis of the impact of recruitment policies may be beneficial for companies and employees. Qualitative analyses beyond retention rates would better inform recruitment policies on performance, fairness, and omit potential bias.

Although interviewees recognized the potential of workforce analytics for recruitment purposes, none had a vision about how these analytic tools could influence recruitment strategy, and skepticism. This was contrary to other industries in which the enthusiasm for the potential of workforce analytics dominates the discussion. Welsing (as cited in KPMG International, 2012) referred to the level of HR analytics that is able to demonstrate the return on human resources as “real holy grail stuff” (p. 11). HR in the pharmaceutical industry was about to miss an opportunity to gain a more strategic role by putting recruitment based on data analytics in a strategic and socioeconomic perspective. As a consequence, other departments might define processes and framework.

4.11.9 Summary of HR Attitudes, Opinions, and Strategies

Based on the interviews, a framework emerged that suggested when HR departments were able to adopt segmentation and targeting instruments. It showed how HR transformed the need for a scarce human resource into recruitment. The findings of this study showed that HR

personnel had certain assumptions regarding the main drivers of a pharmaceutical company's business performance. HR's attitudes and opinions were a key determinant for the use of certain marketing tools in recruitment. If people were not perceived as one of the main drivers of a pharmaceutical company's success, the use of systematic targeting and segmentation in the recruitment of high potentials was less likely. The HR department served as an enabler, focusing on administrative procedures and compliance (see Figure 7), and was less involved in line management and strategy discussions.

Another important indicator for the use of marketing instruments (e.g., market research and segmentation) was a strategic human resource function for HR. This strategic human resource function comprised a long-term vision, including an estimate of future needs for high potentials. In order to estimate that need, larger pharmaceutical companies required a certain level of standardization and centralization of the company's systems.

The level of affinity and comfort of HR with internal and external data sources also influenced what criteria (e.g., psychographic versus demographic) are used for segmentation and targeting within the high-potential market. Figure 7 displays the elements of HR strategy and attitudes.

Ten of the eleven corporate interviewees (91%) emphasized the importance of HR as a partner, rather than an enabler. These companies used some (simple) forms of segmentation (e.g., college recruitment) and targeting (e.g., networking). In some cases, the structural prerequisites (e.g., a long-term planning system) were not given, but the interviewees expressed a personal interest in hiring certain group members. Use of more sophisticated (psychographic) segmentation and targeting tools implied a different perception of HR—as a driver of business decisions, beyond its role as a partner. As a result, HR was a core member of the company, or as one interviewee from a biotech company stated:

I think, in general, what you want to do is look at an organization first from an administrative view to one as a business partner . . . that's actually kind of the pathway to get there. . . . You need to be able to drive the strategy of an organization. . . . It doesn't matter if you make water or if you're making macrolides, and I think the next wave of . . . evolution of the HR organization is . . . in the direction of strategy drivers.

While another interviewee from another biotech company stated:

in addition, what we get a lot of credit for now is our focus on and our ability to distinguish our culture as a strategic advantage of the company and then to leverage it, not only in hiring and soft HR things, but it's become something that our senior people and our financial people talk to investors and analysts about—that we've got the right culture for a modern biotechnology company.

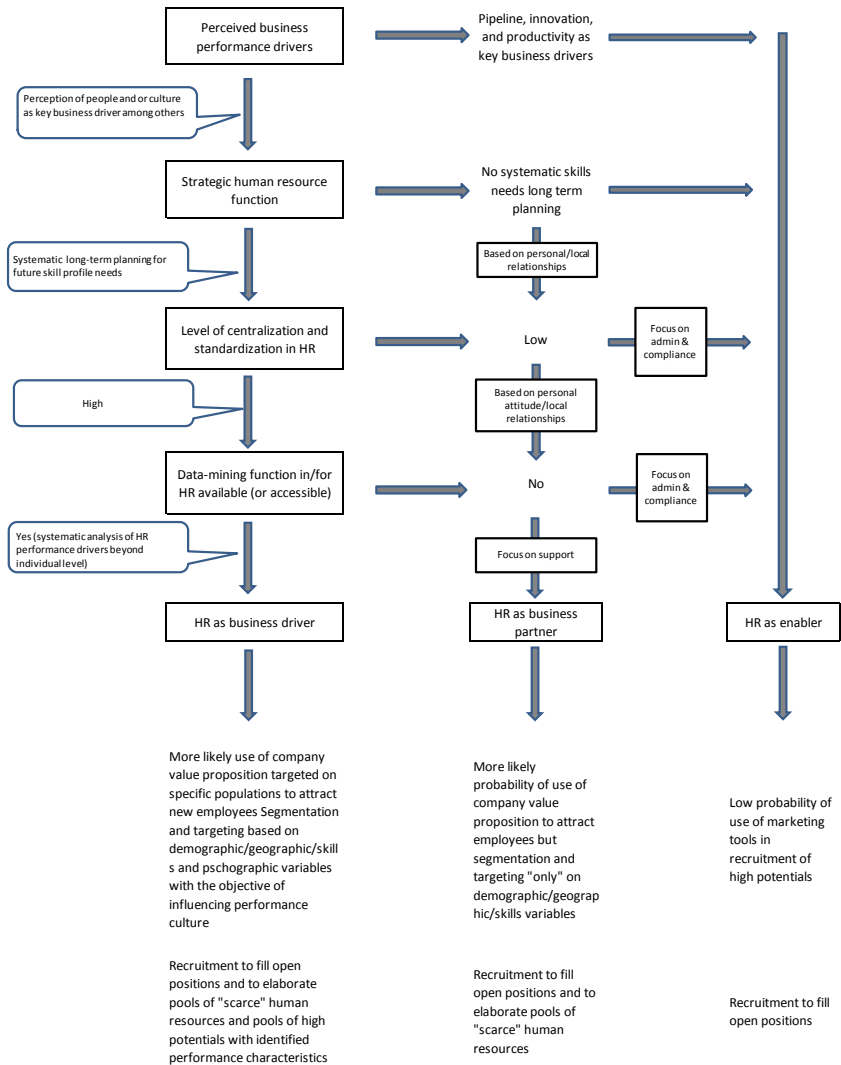


Figure 7: Impact of HR attitudes, opinions, and strategies on recruitment

4.12 Category Four: The Need for Certain Groups of High Potentials

Collins and Kehoe (2009) emphasized the critical importance of recruitment of high potentials in the pharmaceutical industry. The interviewees acknowledged this importance of high-potential recruitment, including an experienced biotech HR professional, who stated that “the

recruitment of high potentials was the singular most important factor.” The importance of high potentials was also reflected in the investment these companies make in their high-potential population. Several companies devoted multiple resources (money, time, mentoring, and leadership development programs) to high potentials.

Three main factors were identified in this study to determine the need for certain groups of high potentials in the pharmaceutical industry:

- the definition of high potentials,
- the absolute growth and volatility of that growth over time of a company , and
- the perspective of the management of a company on the main business drivers.

4.12.1 *The Definition of High Potentials*

Eleven of the fifteen interviewees (73%) mentioned that different groups of employees offered different value for the company. However, none of the corporate respondents measure or qualitatively captured this difference in added value. Thus, they were unable to better inform their development and recruitment policies with data about which potential groups of employees would add the most value.

Although six (55%) corporate interviewees used a formalized definition of a *high potential*, none of the descriptions was very clear or detailed. The cause of this lack of clarity might be the ambiguous use of *high-potential* definitions in the literature. *Talent* and *high potential* were sometimes used synonymously (Kienbaum Management Consultants, 2001; Morton, 2005) and sometimes used differently (Kunz, 2004; Thom & Friedli, 2003). About 40% (six) of the interviewees used *talent* and *high potential* synonymously, and about 60% (nine) differentiated these terms. One interviewee from a large European company explained:

A talented person is not, per definition, a high potential. . . . You can be talented and skilled in one area and do a great job, and you do add value and are an asset to the company, but you are not necessarily a high potential who wants to develop, who wants to change functions, and who wants to be promoted.

However, an interviewee from another large European pharmaceutical company noted:

I personally do not see a big difference between a talent and a high potential. I mean, we have internally chosen the word *high potential* for our talent management development. But we are not talking about talent; we are talking about high potential when it comes to filling key positions. So you could say a high potential is more than a talent.

This study confirmed that there is no consensus about the definition of a *high-potential employee* (Silzer & Church, 2010). Three of the eleven interviewed corporate HR professionals (27%) mentioned that they used performance as a proxy for potential. The focus of performance management systems has changed in the last decades from a review of competencies, behaviors, and personalities to results (Fletcher & Perry, 2001; Pulakos, 2009). This might be a reason why past performance had become an important characteristic in the

definition of a *high potential*. Most performance systems “focus on a predictable set of variables involving some variation on establishing performance goals for employees, assessing performance, and providing feedback” (Gruman & Saks, 2011, p. 127), thus neglecting thinking about personality traits, behaviors, and competencies and failing to facilitate a discussion about what it meant to be a high potential.

The ability to perform consistently in different environments was perceived by another three corporate interviewees (27%) and two professional recruiters (50%) to be a key characteristic of high potentials. One interviewee from a large European pharmaceutical company described a high potential as “a person who performs on a high level in different environments and different contexts.” An interviewee from a U.S.-based biotech company described *high potentials* as people who “have potential to develop this talent in other job areas.”

The professional recruiters and the corporate recruiters with previous professional recruitment experience highlighted the importance of the ability to perform in groups, thus suggesting this criterion was used to contract recruitment agencies when searching for high potentials, but not the first that came to mind when corporate recruiters think about high potentials. There were no other observable differences between the definitions used by professional or corporate recruiters. There was also no difference in the use of definitions based on seniority or geographical region of origin.

Gotsi and Wilson (2001) found evidence that it was essential to have alignment between employee behavior and the values of an organization’s brand. Ready et al’s. (2010) definition of *high potential* posits that alignment of the values of an employee with the culture and key values of the company affected the performance of the employee. Therefore, the alignment of a potential employee’s values with those of the company was an important criterion in recruitment. Seven of the eleven corporate interviewees (64%) and three of the four professional recruiters (75%) acknowledged that the ability to perform successfully was dependent on the organizational fit of the employee and the company. However, only one interviewee from a U.S.-based biotech company used identification with the company as part of its recruitment strategy.

From the six pharmaceutical companies (55%) in the study that used a formal definition of *high potential*, four used the definition of “an employee that can be promoted at least two levels.” The HR department did not provide any guidance on the important attributes for promotability. This was normally the responsibility of line management and, therefore, short-term performance is an important factor. The other five pharmaceutical companies (45%) in the study did not use a formal definition, but instead work with a rather loose framework of assumptions regarding the definition of a high potential. Two of these five interviewees explicitly rejected the definition based on promotability. Three of the eleven corporate respondents (27%) mentioned the lack of resources within HR, combined with the daily workload, as a reason why they have not established a definition of a high potential. The four

biotech interviewees (100%) mentioned that they were so occupied with growing and recruiting people that they did not have time to discuss the characteristics of a high potential in depth.

This study found that it was difficult for the HR professionals to describe key characteristics of high potentials. In response to the direct request to “please describe a high-potential employee,” four (27%) gave a definition of promotability (“at least two levels”) and two (13%) referred to the line managers who defined the potential of employees. However, all interviewees used the term *high potential* when answering other questions, suggesting they each had an implicit concept of the characteristics of a high potential in mind, regardless of a formal definition. Research has shown that recruiters often used implicit criteria when making actual judgments about potential candidates (Cole et al., 2007). Cole et al. posit “that recruiters often espouse or endorse ordering of criteria as important or essential in the abstract but then utilize an alternative ordering when making actual judgments” (p. 337). Rhynes, Trank, Lawson, and Ilies (2003) found that evidence of people skills and background on a résumé played little role regarding employability, though recruiters mentioned that these criteria were important.

In order to make the implicit criteria the recruiters used for a high potential tangible, projection techniques (e.g., association tests) were used to help the interviewees verbalize their definitions of high-potential employees. According to Boddy (2005), projection techniques were often used in research when participants were unable “to expose their thoughts and feelings via more straightforward questioning techniques” (p. 239). First, participants were asked to visualize the high-potential employee as an animal. Second, interviewees were then asked to specifically describe the key characteristics of this high-potential animal.

This study suggests that there were different high-potential profiles for which HR professionals are looking, though certain groups of characteristics of high potentials may occur in different combinations of profiles. The four main characteristic groups HR sought in high potentials were (a) intelligence and cleverness, (b) engagement, (c) a readiness to step into various environments, and (d) ability to manage one’s energy/self. Seven interviewees (47%) focused on intelligence and cleverness in their description of a high potential. Four of these interviewees mentioned intelligence and cleverness in combination with flexibility/agility of the person. The interviewees’ responses included:

- “It probably has to do with speed and its agility. . . . Intellectual agility we assume coming in the door. . . . Intelligent, agile, and fast would be probably the three criteria that would be most important.”
- “[He or she is] both driven and intelligent, and nimble, and can collaborate.”
- “Smart, clever, and not running around all the time like crazy, but when necessary, it’s possible.”

- “They are clever, they get the job done, they are not overly aggressive, they are not going to call wild attention to themselves, but they are clever and smart and wily and accomplishing.”
- “[He or she is] a very fast intelligent [person].”
- “[They are] the ultimate hunter. . . . They are self-reliant . . . they challenge ideas, they push back, they are happy to challenge the status quo; there is an analytical rigor about them to spot things earlier than most people.”
- “[He or she is] very talented, very highly skilled, very adaptable, very eager to learn; [he or she] can excel and has superior qualities to other people in the same environment.”

A second group of five interviewees (33%) focused on the importance of engagement:

- “I think that what we look for is people who have a drive; I regret to say that, but they really got to have the drive and the desire to manage or lead people.”
- “A high potential is always hungry for new projects and developments. They are never lazy, and they have their quiet phases during the day, but they want to be Number 1.”
- “[A high potential is] someone who moves forward, who is aggressive, but in a good sense.”

Although these interviewees used different definitions of engagement, the definitions all had common elements: energy, enthusiasm and focused efforts as well as behavioral and psychological aspects (Macey, Schneider, Barbera, & Young, 2009). Employee engagement has been associated with better retention rates and with higher individual, financial, and company performance (Gruman & Saks, 2011). These five interviewees also mentioned engagement in connection with the willingness to learn and used phrases such as “thrive and hunger for development,” “wants to develop,” and “wants to grow.” In this context, engagement was not necessarily a focus on the short-term project at hand; instead, it was more closely aligned with the trait of perseverance.

A third group (five interviewees; 33%) emphasized the ability to be ready and function in various environments and situation in their description of a high potential. Forty percent of these interviewees added the ability to lead a group and/or to keep a group together in different situations. They described people with this ability:

- “[He or she is] the right arm; if something happens, this is the person who would come in and step in for that person. . . . [He or she] is not quite there, but [is] ready to take over when needed.”
- “You have to know your environment . . . you have to know how to hunt, but you have to take care of your group; you have to be flexible, you have to adapt to situations; if a situation is . . . different, you have to move, you have to regroup.”
- “It takes resilience, perseverance, strength, energy, hard work, flexibility, and versatility. . . . [He or she is] going to be the one that can truly survive under ever-

changing circumstances. . . having the sensors and catalytic learning and energy around working, a kind of flexibility and versatility.”

- “[He or she is] quite adaptable to the environment.”

These traits and abilities of high potentials build an informal framework for high-potential assessment in practice and reflected the variety of high-potential definitions given in Chapter 3. The differences between the interviewee responses highlighted the difficulty of recognizing a high potential with a specific profile of qualification (Kienbaum Management Consultants, 2001).

The ability to manage working energy effectively as an important characteristic of a high potential was mentioned by four interviewees (27%; two HR professionals from the largest companies, one corporate recruiter from a small company and one professional recruiter). They mentioned that high potentials “know when to come up for air”; are “efficient/fast . . . very observing, knowing when to make the right move without thinking about it for ages . . . and kind of efficient, once they do what they do”; and are skilled in “energy management, because if you work like crazy and crash down at some point, that’s not necessarily an indicator for high potential.” The contemporary definitions of high potentials do not mention the ability to effectively manage energy levels. However, it fits with the research on high-performance management systems and emotional intelligence about the importance of self-reflection and self-awareness (Cook & Cripps, 2005). This ability to effectively manage energy levels may be an important characteristic for the long-term performance and lifetime value of an employee.

HR professionals in this study looked for varying combinations of four groups of characteristics when sourcing for high potentials in the marketplace: intelligence and cleverness, engagement, ability to manage one’s energy/self, and a readiness to step in into various environments (see Figure 8). Some elements of high potentials that were often mentioned, included the ability to perform in various environments (adaptability), being smart and clever (efficiency), and the ability to survive, parallel Ready et al.’s (2010) definition.

The influence of HR and recruitment professionals’ high-potential definition on recruitment policies was indirect and often not very transparent. It can be expected that the implicit assumptions from HR professionals about high potentials influenced the selection of potential candidates in later stages of the recruitment process. As a consequence, companies and potential candidates unnecessarily invested resources in a process that could be more efficient and fairer if the implicit soft recruitment criteria (e.g., engagement, ability to manage one’s energy) was discussed in the company and made explicit to potential candidates. An internal discussion about the ideal profile of a high-potential candidate would allow the company to target its messages to the appropriate potential applicants, thus increasing the probability of a more accurate response. A transparent definition of high-potential traits could build the basis for a search algorithm to support the segmentation and targeting process. As previously

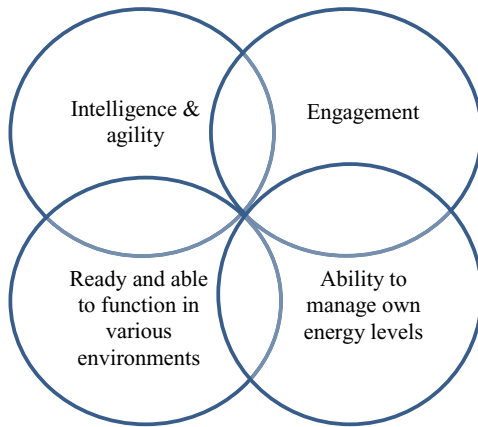


Figure 8: High-potential profiles

discussed, such algorithms were known to be more accurate in predicting future outcomes in low validity situations compared to subjective assessment by professionals (Kahneman, 2011). This may lead to a potential competitive advantage in the labor market.

4.12.2 Growth of Company and Volatility of Growth and the Resulting Need for High Potentials

The growth of a company and the predictability of its growth influence the used recruitment instruments. Two corporate interviewees (18%) mentioned that a change in growth initiated a reevaluation of their recruitment strategy. One interviewee explained that a high level of growth forced his company to recognize that the recruitment methods used in the past could no longer deliver the required number and quality of employees:

I think most staffing people are comfortable doing whatever they learned how to do the way they learned how to do [it], and I found that when we weren't under tremendous pressure, we stopped doing some of the things that had made us successful.

Four of the fifteen companies (36%), all with low growth, reported no need to change the recruitment instruments they used (e.g., networking), as these instruments were currently sufficient to cover their needs for high potentials. Two (18%) interviewees reported that the volatility of the growth of a company may force a company to outsource its recruitment activities because in-house activities may not yield a good return. On the contrary, three of the eleven corporate interviewees (27%) mentioned that their companies had reached a certain critical mass with a more or less predictable growth path, which allowed them to in-source their recruitment activities.

Independent of growth, four of the eleven corporate interviewees (36%), from both small and large pharmaceutical companies, mentioned the difficulty of recruiting high potentials with a specific background (e.g., in clinical development). However, two interviewees from the biotech industry (50%) mentioned several times the challenges they faced in recruiting enough scientists without jeopardizing quality in phases of strong growth and in remaining flexible in times of downturn. Contrary to the findings of Lepak and Snell (2002), who describe only two dimensions that define the human resource strategy (the value of an employee and his or her uniqueness), the current study found that the volatility of the demand for a certain human resource (influenced by the volatility of the environment) also influenced the HR recruitment strategy. The three interviewees (27%) from companies with high growth or very volatile human resource demand were more prepared to include new strategies compared to the more stable big pharmaceutical organizations growing at a more moderate and predictable pace.

This study found that the specific industry environment within the pharmaceutical industry influenced the probability of the use of certain marketing instruments for recruitment. Four respondents (36%) reported difficulties in the recruitment of high potentials with a clinical development or engineering background. There were differences between the responses from the two interviewees from the larger and midsize pharmaceutical companies and the two (50%) who worked in the biotech companies. In biotech, the need for these groups sometimes triggered a change in the used recruitment methods. This was not true of the midsize and large pharmaceutical companies in the study. A possible explanation could be that the relative importance of these hires was potentially more critical for small biotech companies because there were few available high potentials with this background. In the large pharmaceutical companies, employees with a clinical development background can more easily compensate for a certain period if the recruitment of new employees was unsuccessful. In biotech—with often only a limited number of specialists to develop the projects in the pipeline—failure to recruit becomes more critical faster and can threaten the existence of a company. The nature of the biotech business was one of very specialized employees in clinical research and development. Only a small number of these specialized employees were available globally which exponentially compounds the difficulty of recruitment.

The composition of the high-potential workforce varied between the companies in this study; for example, biotech companies were relatively more dependent on science people, whereas larger pharmaceutical companies have a high-potential workforce with a more diverse background (e.g., marketing or sales). However, it seemed unlikely from the data from this study that the inter-company variation in assumptions that HR professionals have about high potentials' key characteristics was based on size or age of the companies.

4.12.3 Management Perceptions on Growth Drivers

Another factor that influenced the need for groups of high potentials with certain traits and competencies was the perception of management on the human factor as a growth driver. “People and culture” were often (53%) mentioned by the interviewees as drivers of business performance. However, most interviewees did not qualify which employee performance behaviors were most beneficial for the company, instead expressing that “really, it’s the people; it is always the people, the talent, the leaders that we have” and that it is all about having “the right people in the right places . . . besides the pipeline.”

In three (one large, one midsize, and one small) European companies, management’s perception of employees as a performance driver was heavily focused on efficiency and reduction of cost, evident in statements such as: “fast productivity programs . . . increase productivity more and more for a culture of performance” and “reduce headcount.” In the four biotech companies, the focus of people management was on sustainable capability building to achieve the strategic goals. The internal discussion in these companies focuses on those HR activities that were perceived as core and those that can be outsourced. The objective of the recruitment activities in these companies was to acquire the technological skills and not to change the company culture.

Two companies (one midsize American company and one midsize European company) were built through acquisitions. The former companies were integrated but managed differently as separate divisions with different cultures and management styles. Recruitment of candidates who fit the specific culture of a division or who have the ability to work in the various company settings was deemed an important characteristic by these interviewees:

We need people with that mindset; we need people that are able to build bridges, so the culture in Place X is totally different from that in Place Y. Place Y is HQ oriented, [and] is international. Place X is really a . . . local one. . . . We are not looking for people who only have the HQ mindset, because they will have difficulties with the mindset there.

These companies assessed the fit with the company culture in the selection phase (interviews); while in the sourcing phase, the focus was on the skills and education. One interviewee from a U.S.-based biotech company viewed corporate culture and employee attitudes as the major driver for success. This company conducted internal market research to determine its corporate culture and built recruitment activities around this cultural profile. The main recruitment activities were designed to make sure high potentials who fit the culture of the company applied for open positions. Recruitment campaigns were also conducted to eliminate potential applicants who did not fit this company culture. The interviewee from this U.S.-based biotech highlighted the importance of fit of employee attitude with the corporate culture. This attitude was perceived to be as important as the different skills and personality traits people needed to excel in a certain position. He stated that it “is our focus on and our

ability to distinguish our culture as a strategic advantage of the company and then to leverage it . . . in hiring” that made his company successful.

The need for certain high-potential characteristics depended on the management strategy as well as the functions these high potentials had in the company. Interviewees revealed that different business strategies require a different HR focus. According to Anderson (2008), a strategy of customer intimacy implied that HR recruits and selects “job candidates with strong customer service and customer relations skill to help fortify the provider/customer,” whereas a business strategy that focused on the customer/market should “use strong market research to drive recruitment and selection so employees have a strong understanding of the target market.” Using this business strategy, the job descriptions for potential employees should “emphasize versatility and adaptability as products and services are subject to rapid change” (p. 1). One HR generalist from a biotech company thought that “there are different animals based on the type of organization,” while another noted that

when we are recruiting researchers and developers, they come with a certain character trait. . . . I think that if I compare a researcher with a sales guy . . . you can see the most difference or the biggest difference in their personality traits.

The generic high-potential profiles with which HR professionals work implicitly were adopted with and complemented by the specific competencies needed in a specific situation and company (see Trost, 2012).

4.12.4 Summary of Needs for High Potentials

The need for certain groups of high potentials was influenced by three subcategories:

- The definition of the high-potential group determines, to a certain extent, how easily these people can be found; the more specific characteristics were defined (such as education, skillset, and attitude), the more difficult it may become to recruit them.
- The growth of the company can affect the need for high potentials; fast-growing biotechs may have a high need over the years for certain groups of high potentials.
- The management’s perception of the key growth drivers for the company influenced the need for high potentials. Product/pipeline-focused companies defined their needs differently than those companies whose senior management perceived the employee and company culture as the key business driver.

4.13 Connections between the Categories

Besides the scarcity of certain groups of high potentials, an HR department’s ability to access channels, as well as the definition of high potential that the HR department used (e.g., a high potential with clinical development background who fits with the company culture), influenced the probability of recruiting adequate employees. However, HR did not make these decisions; nine of the eleven corporate interviewees (82%) mentioned the importance of line

and senior management's perspectives regarding business drivers and the used high-potential (recruitment) strategy. If senior management and HR did not have long-term planning and accessible information databases in place, the need for high potentials cannot be assessed and transformed into recruitment activities.

The results of this research suggested that HR organizations within the pharmaceutical industry needed a strong external challenge (e.g., high need for specific scarce groups of high potentials) to initiate a process of using instruments (e.g., segmentation based on psychographic profiles) that they had not previously employed in the recruitment of high potentials. These situations have been described as critical events. Strauss (1959) posits that critical events occur when there is a temporary gap between occurrences and a person's understanding of them. In certain situations, such as those explored in this research, a person or organization will have such experiences, for which currently used solutions seem inadequate. These situations caused the person or organization to start to question current procedures, used instruments, and previous knowledge. Subsequently, an internal process (within the person or within the organization as a whole) may start that leads to the adoption of new behaviors, instruments, or strategies.

The organizations in this study needed a critical event to question their current method of operation. They needed to acquire different knowledge and rethink their HR and recruitment strategies. This knowledge can range from a change in recruitment organization structure (e.g., in-sourcing the social media sourcing function) to redesigning the recruitment process itself. The need for scarce high potentials determines the use of marketing instruments in the recruitment of high potentials. HR can actively shape actions and structures to address its current challenges. The recent developments in technology that provide easier access to current and potential employees may further facilitate the willingness and capability for the adoption of marketing tools in recruitment.

4.14 Summary of Findings and Analysis

This study found that the use of segmentation and targeting in the recruitment of high potentials was determined by a combination of four elements: (a) the technological capabilities; (b) the scarcity of high potentials; (c) HR attitudes, opinions, and strategies; and 4) the need for high potentials.

Six (55%) companies used a formal definition of *high potential* (of which four used the concept of promotability). However, all interviewees had an implicit set of assumptions they used when thinking about, recruiting, and managing high potentials. These assumptions differed significantly between the interviewees. The HR professionals fell into groups that focused on four different characteristics of a high potential: (a) intelligence and cleverness, (b) engagement, (c) a readiness to step into various environments, and (d) ability to manage one's

energy/self. Beyond the primary characteristic mentioned by members of each group, different combinations of traits were mentioned, creating overlap between the characteristics.

Although the importance of personality traits and soft skills for performance has been widely discussed in the literature, these personality traits and capabilities of high potentials were used to a limited extent in proprietary professional databases for external recruitment. Emotional intelligence (EI) (which comprises elements of social skills, motivation, empathy, and self-regulation) was viewed as an important predictor of future performance (Cook & Cripps, 2005). EI has been increasingly used in the selection phase of the recruitment process and associated with positive results, such as less employee turnover and increased customer satisfaction rates (Taylor, 2006). The interviewees in the current study described broadly different applications of EI. Professional recruiters included soft skills of the high potential (e.g., communication and leadership styles) and specific experiences (e.g., change management), but did not qualify the level of engagement, agility, and previous performance of the high potentials in different environments in the past. In contrast, most internal corporate databases used for employee assessment and development reflected the agility, flexibility, and engagement of a high potential. Such databases were mainly used for coaching and internal promotion of individual employees. The results were not translated into specific profiles for external identification of high potentials. For identification of potential applicants, simple variables (e.g., education) were preferred by the HR professionals. Only one company built complex profiles based on internal market research to target high potentials with specific traits and attitudes that fit the company culture.

High potentials were searched for using different instruments, varying from networking to posting open positions on the Internet. The sophistication level of the used instruments increased with the scarcity and need for specific groups of high potentials. The most basic tool, used by all companies in the study, was the posting of open positions on the Internet. The most sophisticated instruments used were targeted communication programs for specific groups of high potentials developed through extensive market research and segmentation. The most commonly used tool for targeting high potentials was networking. All the professional recruiters and 10 of the 11 corporate interviewees (91%) had a proprietary CRM database developed through networking.

Technological innovation has significantly changed high-potential recruitment. Social media, search engines, and data analytics allowed for the use of new recruitment channels and algorithms. In parallel, the recruitment function has developed from a passive function to one that actively identifies and recruits passive candidates. However, this study found little evidence of full adoption of the new technological possibilities by HR. In situations where a high need was identified, HR (recruitment) adopted and used sophisticated instruments (e.g., segmentation and subsequent adaptation of messages to specific target groups). However, in the pharmaceutical industry, networking using referrals and personal contacts remained the

instrument of choice. New recruitment instruments were only adopted if a high need for a specific scarce group emerged and the historically used tools were insufficient to address this need.

5 Conclusion, Limitations, and Recommendations

The purpose of this study was to explore and assess the implementation of segmentation and targeting to recruit high potentials in the pharmaceutical industry in Europe and the United States. Grounded theory method and the contingency theory were used to develop a model to aid human resource professionals in assessing under which circumstances segmentation and target marketing can add value to the recruitment process. The findings of the study confirmed that internal and external factors, as predicted by the contingency theory, influenced the use of HR and recruitment strategies in the pharmaceutical industry. Contingency theory literature generally found that contingencies determine structures, strategies, and processes (e.g., Donaldson, 1996), whereas Child (1972) introduced beliefs and preferences of management as a moderating factor. The current study found that HR attitudes, abilities, and views interacted with the need for high potentials, the scarcity of these groups, and the technological capabilities of a company to determine which marketing instruments were used and implemented. While the interviewees agreed on the importance of high potentials for the company, they differed in their level of sophistication and knowledge regarding human resource marketing and, specifically, in their use of marketing instruments such as segmentation and targeting. While those companies with high growth and specific, difficult-to-fulfill needs used more sophisticated tools, such as targeted messages based on market research, others with a lower and predictable growth used simpler methods, such as segmentation based on education in college recruitment. This study supports findings from various disciplines:

- marketing: Kotler and Armstrong (2010) suggest that market understanding can help focus the efforts of a company on certain target groups and build a competitive advantage.
- socio-psychology: Strauss (1959) asserts that strong challenges are needed to make a person (or organization) challenge current beliefs and adapt its behavior. The use of more sophisticated segmentation approaches was observed in those companies that faced high challenges in their history (such as the recruitment of large groups of clearly defined but scarce individuals). These challenges triggered a process that led to a change of strategy and/or used instruments.
- HR: Cantrell and Smith (2010) found segmentation to be a useful instrument for internal talent management. This study found segmentation useful in external recruitment and supported the plea from Ferguson and Brohaugh (2009) to build a performance database and analyze it. Insights generated from this analysis could guide the recruitment of high potentials and who offer the most value for a company.

The adequacy or rigor of theories developed with the grounded theory method should be judged with criteria such as fit, work relevance, and modifiability (Glaser, 1978). The

criterion of fit was achieved as theory emerged from the data; no data were excluded to maintain an extant theory, and data were not forced into preconceived categories. Through the use of the grounded theory method, the relevant categories and the theory emerged from the stories of daily practice and feedback of the respondents, thus ensuring work relevance. The interview partners acknowledged the relevance of the topic for daily practice.. In addition, the emerging theory was shared and discussed with two of the interviewees to receive feedback from practitioners on the model and its elements. The criterion of modifiability was given consideration by constructing the emerging grounded theory in a way that allowed for inclusion or adaptation of certain elements without jeopardizing the theory.

5.1 Theoretical Implications

5.1.1 Grounded Theory

The grounded theory method was used to explore the implementation of marketing instruments (e.g., segmentation and targeting) in the recruitment of high potentials in the pharmaceutical industry. GTM's open approach to research offered the ability to comprehend the situation being studied and develop theories from interviewees' stories. GTM "allows new points of views and understanding of the context and practices of working professionals" (Long, 2012, p. 3). GTM has been applied widely in research in the health care sector (Morse, Stern, & Corbin, 2008), though its use in recruitment has been limited. GTM proved to be an applicable research method for gaining new insights into the field of human resources and, specifically, into recruitment, thus confirming observations from the health care sector (Long, 2012).

GTM allowed the interviewees to speak freely without the constraints of more traditional interview methods and analysis. It allowed the researcher to be guided by the data and to follow the discussion flow of the interviewee (Ghezeljeh & Emami, 2009). Previous research (Cole, 2007) has shown that recruiters use different criteria in practice than those they endorse in the abstract. It was therefore important for the interviewer to build on the interviewees' stories and to discuss their recruitment practices. Thus, this study showed the value of using semi-structured interviews in a recruitment setting. An interview based on structured questions would not have offered the same depth of insight.

The use of projection techniques within the GTM's open approach aided the development of new knowledge about HR professionals' views of high potentials. Although the GTM tends to be focused on practical ideas and less on abstract constructs (Corbin & Strauss, 2008), this study showed that it can be useful in the construction of abstract ideas (e.g., high potential profiles).

5.1.2 Contingency Theory

Contingency theory served as the framework for this study. Contrary to the view of other researchers, Datta et al. (2005) argue that some activities may have an overall positive effect on companies, but they are implemented differently according to the situation and strategy of the company. Similarly, some marketing instruments (e.g., targeting) were widely applied in this study, but the level of their implementation varied accordingly.

This study found that HR attitudes, opinions, and strategies influence the choice of marketing instruments in recruitment. Datta et al.'s (2005) variant of the contingency theory, Allen and Wright's (2007) resource-based view of the firm, and Ulrich and Brockbank's (2005) HR value propositions may be important elements in framing the choices HR departments make.

According to Ulrich and Brockbank, the strategy of a company should be contingent on the needs of the stakeholders that the company and HR serve. Therefore, the definition of the company's strategy should start with an assessment of the goals and values of the key stakeholders. HR professionals should start by asking themselves: "Who are the key stakeholders I must serve? What are the goals and values of the receiving stakeholders? What is important to them? What do they want?" (Ulrich & Brockbank, 2005, p. 4). Ulrich and Brockbank then recommend implementing the knowledge gained by these assessments by designing and building a valuable set of resources in a unique architecture to ensure a company's success. In their view, HR should acquire knowledge and skills to link HR activities to stakeholder value, allowing HR to become a source of competitive advantage.

However, the implementation of recruitment activities based on these knowledge and skills (e.g., data analysis) may vary by company. Further research within the contingency framework may develop Datta et al.'s (2005) views within an HR context and determine which HR activities, structures, and strategies lead to optimal recruitment results when adapted to the needs of HR's stakeholders. Consequently, research can build on this relationship between contingency theory, the RBV of the firm, and research about strategic human resource marketing.

5.1.3 Recruitment

Recruitment has been prominently, though predominantly prescriptive and functionalist, discussed in HRM literature (Taylor, 2006) with managerial agency given a minor role. In the existing research, the influence of managerial politics, organizational culture, and individual preferences have been largely neglected. Recruitment research has often focused on the analysis of technical aspects (e.g., recruitment channels, employer branding) of recruitment. The influence of beliefs and opinions of the HR department and senior management of the company on the used instruments and policies were less covered.

In this study, the emerging grounded theory model of the use of marketing instruments in the recruitment of high potentials allowed HR managerial beliefs, abilities, and preferences to dictate the use of these instruments. No single ideal was promoted; implementation of specific instruments was contingent on HR's attitudes, opinions, and strategies. This allowed HR to guide the use of these marketing instruments actively, and align it with Peters and Waterman's (1982) 7-S framework: strategy, systems, structure, skills, style, staff, and shared values.

5.1.4 HR Marketing

The findings of this study offered insights into how different use patterns of marketing instruments in the recruitment of high potentials in the pharmaceutical industry may be explained by different company situations. As noted by Breugh (2009), there was little academic literature available on targeted recruitment. The HR professionals who participated in this study reported various marketing methods currently used in the industry, including segmentation through college recruitment and targeting through employee referral programs. The various methods, as well as the environmental and business factors that influence the use of these segmentation and targeting instruments, were discussed. This study offered guidance on the application of these instruments by other companies and the possible rationale for the use of these instruments.

5.1.5 High Potentials

The commonalities in the high-potential definitions and the variety of criteria used by the interviewees provide new insight into HR's expectations for assessing high potential. This analysis could support a more empirically based definition that has utility in praxis. The commonalities in the implicit assumptions of the respondents about high potentials form a basis for the development of profiles—beyond education—that could potentially be used in the recruitment and the development of high-potential employees. The variations in the high-potential concepts of the interviewees showed the necessity for further research in the field of high potentials and particularly on how to recognize potential for future performance.

5.2 Implications of HRM Practice

HR practitioners do not rely on extant recruitment research. Only one interviewee made reference to the academic literature, Ready et al. in particular, although interviewees and existing literature mention some similar characteristics of high potentials. This is contrary to Long's (2012) observation that "human resource professionals derive their practices from previously conducted research" (p. 2).

There is a “continuing gap between rhetoric/science and practice (or academic and practitioner) in recruitment and selection” (Taylor, 2006, p. 479). Such a research gap between recruitment researchers and practitioners was particularly striking given that 80% of the respondents from a recent large global study of 418 HR practitioners from various industries (KPMG International, 2012) reported that talent and talent strategy was their primary source of competitive advantage. Moreover, despite the well-known importance of recruitment (Taylor, 2006) and the use of marketing instruments within recruitment, little was known about usage of these marketing instruments—except for employer branding—and those factors that determined the choice of marketing instruments in HRM practice. In practice, the decision-making process is complex and influenced by several undefined factors. This study gave clarity on those aspects of human resource marketing in recruitment usually absent in the literature. While a small qualitative study limits generalization, the following implications for practice are suggested based on the study results.

5.2.1 Marketing Instruments to Recruit High Potentials

The HR professionals’ stories in this study (similar to the literature in different environments, e.g., Hemphill & Kulik, 2009, 2011) point to a gap between those companies under pressure to recruit certain groups of high potentials and those that can fulfill their current need for these groups of high potentials more easily in the pharmaceutical industry. Those with a higher need used more sophisticated marketing tools, whereas those that were not under pressure to recruit still relied on classic networking and undifferentiated company branding. The predicted increasing need for new high-potential employees (Dobbs et al., 2012), together with the increasing pressure on profit margins in the pharmaceutical industry (Hunt et al., 2011), potentially indicated that those companies that were currently able to fulfill their need for high potentials rather easily might have to implement more sophisticated marketing instruments in their future recruitment practices. As competition for high potentials increases, companies have to become more effective and efficient in identifying and recruiting the high potentials they need to remain competitive. Current recruitment practices in the pharmaceutical industry seemed to lack a systematic analysis of appropriateness and effectiveness. All of the interviewees seemed to follow a trial-and-error approach when using marketing instruments, guided by their own experience and that of their colleagues. Similarly, the use of marketing instruments in the recruitment of high potentials was often not systematically planned.

Systematic planning of the use of marketing instruments in recruitment would allow for a consolidated approach in online searches as well. The data available on platforms such as LinkedIn, Facebook, and other social media sites facilitates the use of these instruments, but the use of these instruments also generates a new stream of data. The challenge for online platforms will be: (a) to make these data available without crossing legal and ethical boundaries (e.g., privacy), (b) to code the data in such a manner that it becomes available in

meaningful portions, and (c) and to ensure this information can be connected with other sources (online and offline) to make it useful. The use of social media platforms as they exist is only the first step; developing algorithms that allow companies to connect these data sources and present the resultant data as meaningful information will be the key for successfully using these sources for segmentation and targeting.

This study presents an overview of the currently used marketing instruments and a framework for evaluating the current and future sourcing practices, especially the role of marketing instruments within recruitment. The emerging grounded theory in this study encompassed both internal and external factors and allowed for a flexible approach to the recruitment of employees. HR professionals may apply several strategies depending on the need for high potentials; the scarcity of specific high-potential groups; the attitudes, opinions, and strategies in HR; and the technological capabilities. In the literature, two factors influenced the choice of recruitment instruments: the industry sector and the size of the company (Singh & Finn, 2003). However, in this study, the decision process for the use of these instruments was more complex and multifaceted, depending on the situation of the company and the HR department.

5.2.2 High Potentials in the Pharmaceutical Industry

This study offered another perspective on the definition of high potentials. An important finding of this study was the different categories of high-potential characteristics HR professionals implicitly used when thinking about high potentials. This study emphasized the value of an internal discussion between and within management and HR about the key characteristics of high potentials. Other key HR strategies, such as leadership succession planning and talent development management systems, were dependent on the recruited high potentials. Wright (2010) stated that “succession starts with the people you hire” (p. 83). Succession plans that build on high-potential recruitment and the development plans of these high potentials were only meaningful when the people involved have the same assumptions about high potentials, or at least know the different assumptions used within the company. The findings of this study demonstrate the necessity for further exploration of the key characteristics of high potentials and how these characteristics are related to their future performance especially given the importance of recruitment of key people (Ulrich & Brockbank, 2005).

5.2.3 Implications for Corporate Recruiters and Corporate HR

The transition from an administrative function to a profession that defines itself as a partner or internal consultant to line and senior management has left HR vulnerable. Other specialties (e.g., management consultants, marketing, and IT) have penetrated fields that have historically

belonged to HR. The use of evidence-based marketing instruments in recruitment (external recruitment in this study, but with possible application for internal recruitment; see Cantrell & Smith, 2010) offers an example of how HR can clearly define and substantiate its contribution and value to the company. Examples from this study showed how HR and the recruitment function may contribute to the success of a company by analyzing the human resource data of the company and translating these into a competitive advantage. In these companies, the function of HR transcends being a business partner or internal consultant for line management, but truly sets the agenda and becomes instrumental in the definition of a company's strategy. In order to consistently join the decision-making circle of the company, HR should evolve from a mainly intuitive-feeling-based function to one that uses the vast available data (e.g., on performance) to create a competitive advantage for the company. This study gives examples from the recruitment of high potentials in which the appropriate use of data was translated into the use of marketing instruments in recruitment practices, allowing a company to gain a competitive advantage through its employees.

5.2.4 Implications for Professional Recruiters

The increasing pressure on margins in the pharmaceutical industry has had an impact on the margin structure of headhunters, and an increasing number of companies were beginning to in-source the recruitment (especially the sourcing) function. In order to survive, professional recruiters must have better access to certain target groups (e.g., high potentials with a certain background and profile) than their direct competitors and corporate recruiting departments. This study suggests that the use of marketing instruments such as segmentation and targeting can help make the identification process more efficient, which would allow a professional recruiter to differentiate and maintain margins when prices for the service decrease.

5.3 Study Limitations

This study provided insights into how human resource professionals currently use marketing instruments such as segmentation and targeting in the recruitment of high potentials. It also identified the factors that influence their attitudes and approach. However, several limitations should be taken into account when examining the results from this study.

The small sample provides in-depth insights, but limits the possibility of generalizations to a wider audience. Participants were drawn only from professionals of the pharmaceutical industry in parts of the United States and Europe. Geographical differences between the labor markets for high potentials have been reported (Hanif & Yunfei, 2013). An analysis of differences was not feasible because of the sample size. Further research to explore difference between regions and countries is recommended. Although a considerable amount of demographic information about the companies was collected (e.g., organization size, growth,

and geographical scope), specific company characteristics may have influenced the results. Thus, when transferring findings to other settings, these differences should be considered.

The transferability of findings from this study to other populations is also limited as the sample was drawn from the single organizational group of HR professionals. In addition, some respondents were recruited from a database of corporate recruiters and headhunters. The LinkedIn group for corporate recruiters was initially used to identify potential respondents from the pharmaceutical industry from the population. The potential influence of variables specific to this organizational group cannot be excluded. The scope of this study was also limited to professionals with at least five years of experience in human resources, so it is possible that neophytes in HR have different views and use different methods. The interviewing method required a substantial investment in time and effort, which may have influenced the sample of HR professionals who were prepared to participate in the study and, therefore, the findings.

5.4 Recommendations for Further Study

The increasing difficulty of finding a sufficient supply of high potentials (Dobbs et al., 2012; Kotzur, 2007) was reflected in a steady development of high-potential recruitment research. Several researchers (Breaugh, 2013; Roberts, 2012; Ryan & Delaney, 2010) have emphasized the importance of a better understanding of various aspects of high-potential management and recruitment. There has also been a continued call for further qualitative and quantitative studies regarding recruitment of high potentials. For example, Ployhart et al. (2006) called for additional research to better understand the context and consequences of a more tailored approach to high-potential recruitment. In the effort to create a theory on high-potential recruitment, more insight is required on the recruitment strategies used and their impact on companies in the pharmaceutical industry. Further research is also needed to connect the fragmented streams of high-potential recruitment literature and develop a consensus theory.

It is recommended that other researchers explore further the use of marketing tools such as segmentation and targeting in the recruitment of high potentials in the pharmaceutical industry by expanding the sample to a broader pool. In the sample, interviewees represented various types of pharmaceutical companies, including biotechs and large multinational companies covering a wide variety of products from vaccines to oncology and other specialty care. However, none of the interviewees came from a generic pharmaceutical company. The business strategy of a generic pharmaceutical company—cost leadership—is quite different from that of other pharmaceutical companies. Since it is known that business strategy has influence on HR practices (Anderson, 2008), it would be interesting to observe if these generic companies also differ on their recruitment strategies.

Comparative research between the pharmaceutical industry and other industries could provide new insights as well. The knowledge of similarities and differences in the use of

segmentation and targeting in the recruitment of high potentials across industries is important in building the body of knowledge. Further research will also be needed to learn about the marketing instruments used externally and with research about the use of segmentation and targeting in the internal setting.

The contingency theory was used in a qualitative design in this study. An often-recommended practice is following up a qualitative study with a quantitative one using a similar sample of interviewees. This practice serves to confirm or refute findings, such as the influence of the need for high potentials on the recruitment practice or other categories (such as technology) found in this small qualitative study. It would also be helpful to examine the classification of high potentials used by the HR professionals in this sample. A large, semi-quantitative study that uses projection techniques similar to this study could validate this study's findings regarding the perception of key characteristics and profiles of high potentials.

The study of the recruitment process and the influence of context and changing conditions provide an intriguing stream for exploration. Case studies would provide further insight into the underlying considerations that determine the use of marketing instruments for high-potential recruitment. Longitudinal studies should be conducted to observe if and how recruitment of high potentials evolves under different circumstances. The developing awareness of the importance of selecting the right employees for the success of a company and increasing competition for the group of high potentials between companies and industries requires continued development of the body of knowledge concerning the recruitment of high potentials and, specifically, the use of marketing within recruitment.

5.5 Summary

The future success of companies depends on their ability to find potential employees for critical job functions. This ability is dependent on the right high-potential concept and strategy.

According to Blumer (in Corbin & Strauss, 2008), “concepts provide ways of talking about and arriving at shared understandings among professionals” (p. 8). Therefore, it is important that the wide variety of HR professionals' implicit assumptions about high potentials found in this study is made explicit to build one shared high-potential concept. Although the importance of certain high-potential characteristics may change in different contexts, all involved should at least understand the underlying assumptions and have a common language. As Blumer notes: “if you don't have a language, you can't talk—and if you can't talk, you can't do, and the basis of many professions is still doing” (p. 8).

By implementing programs without having a common understanding and language about high potentials, HR risks introducing undesirable biases. Research (Kahneman, 2011) has shown that people judge (stereotype) others and situations based on sets of assumptions about their world. From a societal and business perspective, it is undesirable to measure employees

and potential applicants using implicit stereotypes. A systematic approach of high-potential management and recruitment would reduce the probability of erroneous conclusions about the potential of applicants and employees.

Having the right strategy and system in place to identify potential applicants for critical functions is important for society, companies, and potential employees. The implementation of a segmentation and targeting strategy could support matching of potential candidates with the right companies for these candidates, thus making efficient use of available resources in society. However, the successful implementation of segmentation and targeting is dependent on efficient use of the available data. Although HR is one of the most data-rich environments in a company, HR in the pharmaceutical industry has scarcely used the available data resources. The pressure for HR to change its current practices and analyze the available data as a basis for the implementation of sophisticated marketing instruments is low and limited to specific situations, although this might change soon. In the current pharmaceutical industry environment, it is easy in many cases to find the needed high potentials. Only for certain disciplines (e.g., clinical development specialists) and specific situations (companies with high growth and a high need for new employees) have current recruitment strategies proven to be insufficient. An evidence-based (data-driven) approach in the recruitment of high potentials would potentially reduce biases in the recruitment policies of the pharmaceutical companies, thus serving all involved.

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Appendix A

Interview Guide

The following is the interview guide that was used for telephone interviews with HR experts from the pharmaceutical industry. The purpose of the interview guide was to provide an overarching structure for the interview; depending on specific roles and responses, the sequence was changed and/or some questions omitted.

Research Objectives

- Understand the concepts used by these HR experts and the relationship between the concepts regarding the management of high potentials and recruitment of high potentials.
- Learn how HR-professionals in the pharmaceutical industry view their profession.
 - Assess how HR professionals feel about the future developments in their profession (e.g., impact of HR, future significance of human resources and HR strategy, availability and significance of talent (high potentials), recruitment practices).
- Identify HR professionals' belief systems about
 - high potentials,
 - strategic talent management systems,
 - business strategy and HR strategy, and
 - recruitment strategies and HR strategy.
- Understand which factors in the environment are perceived as the main drivers of differentiated versus undifferentiated HR marketing strategies and use of instruments such as segmentation and targeting.
- Learn about recruiters' initial thought processes when they have to fill a position.
- Learn about the tools used by recruiters and how they expect these tools may develop.
- Understand, in detail, the importance of the alignment of the recruiting strategy with the HR-marketing strategy and business strategy.
- Assess the current policies for driving each company's culture and the perceived importance of the employee in this endeavor.
- Identify the analytic HR instruments used in the companies (e.g., to assess the current and future skill need, to analyze performance drivers).
- Identify specific confirmatory or exclusionary criteria HR professionals consider to assess the potential fit of a potential employee with the company.
- Identify how the respondents define and perceive high potentials and if they have special programs for them.

Moderator Introduction (1 minute)

Thank you for agreeing to participate today. Your honest input will be most useful to me. All responses will be reported in the aggregate and no one (and no company) will be identified in the dissertation. I'm speaking with several people so I am audio-recording our interview to have a record of what is said. Do you agree that this interview may be audio-recorded?

Respondent Introductions (10 minutes)

1. Please tell me a little bit about yourself, your company, and your current position.
2. Please describe your current role and responsibilities, briefly.
3. What is your training? (Probe: Ask about education and on-the-job training: assessments, interview techniques, HR analytics, etc.)
4. What is your involvement in the management of high potentials, directly or indirectly (in current or past roles)?
5. Please provide me with the following information about your organization (again, all information will be confidential and reported in the aggregate).
 - estimated sales per year
 - company mission
 - market capitalization
 - number of employees globally
 - number of new employees per year
 - retention rate per year
 - percent of total employees in “high-profile development programs”

Belief Systems About Business Strategy, HR—Strategy, HR Mindset, Recruitment, and High Potentials (30 minutes)

1. What drives the business performance of your company? (If not mentioned, probe for employees, culture, skillset, etc.)
2. Do you monitor and actively try to influence these performance factors? If yes, how, and if no, why not?
3. **Mapping:** I'd like you to tell me the top five professional HR activities you are directly involved in and their importance for the business from your perspective. Rate them on a scale from 1 to 5, where 1 is unimportant and 5 is very important.
4. Why did you rate them this way?
5. You did not mention the following activities: recruitment activities, staffing, retention, talent management, or HR planning. Can you explain why?
6. How would you describe the business strategy of your company? (Probe: How do they perceive their own company and the company's culture—is it clear cut?)
7. How does the human resource department add value to the company?
8. What is the HR strategy of your company? Describe how it functions strategically as it relates to the overall business strategy. (Probe: Do they perceive the HR strategy as

future oriented? Focused on certain groups of employees, such as high potentials? Data/evidence driven? Externally or internally focused? Benchmark focused or focused on differentiation from competitors?)

What are some major HR strategy failures in the industry? To what degree have these failures been resolved in recent years?

10. What do you see as the major challenges HR faces in the mid- to long-term future? Why?
11. To what degree is HR's contribution to the overall performance of the company measured? (Probe for details.)
12. Define the word *quality*. How do you define *quality* within HR? Is it possible to measure it? How so? (Probe: How do they measure it? Do they benchmark; if yes, based on what? Ask for specific criteria.)
13. Rate the following statements on a scale from 1 to 5, where 1 is "totally disagree" and 5 is "totally agree":
 - Human resources is an important aspect of the business strategy.
 - The human resource strategy should be data driven using internal monitoring and external information.
 - The objective of an organization's human resource strategy is to compete for industry.
 - Employees are a company's main asset.
 - HR should know the offering (wages, fringe benefits, etc.) that its competitors offer prospective employees.
 - It is important that HR does not offer its potential employees more than its competitors. (Probe: Ask why they selected that rating and if they differentiate based on certain sectors, certain skill profiles, or for the fulfillment of certain positions.)
14. What is the composition of your company's workforce? (Probe for specifics of gender, age, geography of origin, mindset, values, etc.) Is the composition of your workforce an important issue in your company? Why or why not? (Probe for language used, such as population or target employee segment. Ask about subgroups such as females, geographical minorities, high potentials, certain profiles, skillsets, etc.)
15. If the composition of your workforce is important, how do you set your targets regarding the diversity within your company?
16. How does your company prepare for the future human resource needs? Is a process in place in which future skills and employee needs are evaluated?
17. Is performance in your company systematically measured? If yes, how? Do you also analyze the performance data by subgroup? If yes, which ones? If no, why not?
18. How do you assess the different value to the company that each employee generates?

19. Do you differentiate your employees in terms of value added or potential value added? (Probe: If yes, how do they differentiate, do they have their own strategy/program for high potentials? Do they think the needs of these high potentials are different, and if so, how? If not, why do they differentiate if the needs are not different?)

High Potentials (20 minutes)

1. Please describe your understanding of the term *high-potential employee*. PROBE: make explicit what it is and what not.
2. What's the difference between a "normal" employee and a high potential?
3. Please rate the following attributes of a high potential to have on a scale from 1 to 5, where 1 is unimportant and 5 is very important.
 - strategic orientation
 - results orientation
 - team leadership capability
 - customer focus
 - market knowledge
 - focus on innovation
 - consistently brings value to the company
 - consistently drives change to improve performance
 - profit and earnings oriented
 - commitment to own development
 - actively seeks challenges
 - high level of self-awareness
 - good relationship builder
 - leads and develops others
 - engages others(Probe: Is any attribute missing?)
4. If you would have to describe the high potential as an animal, what animal would you choose? Why?
5. Is the term *high potential* synonymous with *talent*? If so, why? If not, what is the difference?
6. How would you describe a strategic high-potential management system (STMS) or talent management system? (Probe: What belongs in an STMS, and what does not? What should be measured and monitored?)
7. How homogeneous is the population of high potentials? (Probe for demographic and psychographic criteria.)
8. Do you think that all high-potential employees have the same needs? What are some of the needs they have in your organization? (Probe for company culture and values-aligned high P-O fit, reputation and strategy of company, great colleagues,

empowerment, open, honest and transparent communication, work-life balance, flexible work schedules and autonomy, recognition, a variety of development opportunities, rewards, active placing, investment in people (training and qualifications), understanding/respect, two-way input and action planning, stretches and challenges, organizational/management support, mentors/coaches, advancement opportunities, feedback/appraisals, career conversations, networking opportunities, personal development plan, etc.)

9. If your answer to number 8 is no, do you group (or segment) your internal high-potential population by needs? If yes, which ones?
10. If your answer to number 9 is yes, do you also use these differences in needs to attract high potentials to your company? (Probe why they answered yes or no.)
11. When you evaluate a potential candidate, what criteria are important?

Recruitment and Employer Marketing (8 minutes)

1. What does the term *recruitment* mean to you? Which sub-activities do belong to recruiting?
2. Please describe the recruitment process within your company. (Probe: What triggers them to start a search? Ask about timing, considerations, standard operating procedures, actions, etc.)
3. What is the basic information you collect when a new opening for an executive function occurs?
4. What are your sources of information for the new opening?
5. Do you assess the fit of a high-potential candidate with the company culture? If yes, how?
6. What market research/information do you have/buy/collect about potential employees?
7. Do you monitor specific type of channels (e.g., business schools, visitors to fairs) to recruit certain potential employees types? (Probe for universities, business schools, competitors, LinkedIn, and others.)
8. Do you collect information on any potential employee (from blue-collar worker up to CEO vacancies)? What types of information? Where is it stored?
9. Do you systematically document/track high potentials that you would like to attract?
10. Do you use market research to check what type of high potentials would be attracted to your company? If the answer is yes, what kind of information do you collect? (Probe for demographic, geographic, psychographic data; make it specific.) If yes, do you use direct marketing approaches to attract the right high potentials?
11. How is the targeting of these diverse potential employees organized? (Probe for separate organization, university channels/fairs, etc.)
12. If your company does not do the search itself, how is this addressed in the agency briefing? Are there specific targets set? If yes, how?

13. Does your company have a value proposition to attract employees overall and high potentials specifically?
14. What is the value proposition of your company? (Probe: What do they understand about a value proposition—ask about the marketing 4Ps—price, product, promotion, and place—and how these attributes are used to build the value proposition of the company.)
15. How does it differentiate you from other companies?
16. How was this value proposition developed? (Probe: Were employees or potential employees taken into account when defining the value proposition?)

Wrap-Up (5 minutes)

1. What else can you tell me about the identification and recruitment of high potentials needed to drive the culture of the company and fill the future needs (regarding skills, competencies, etc.) of the company?

Thank you for your participation.

Appendix B

Introduction Letter

Dear XXX

My name is Jan Posthumus, and I am a doctoral candidate at the International School of Management in Paris, France. I am conducting a research study that examines the use of marketing instruments in the recruitment of high potentials in the pharmaceutical industry. The study consists of telephone interviews. The phone interviews will require one hour of your time. All collected data will remain confidential. Results will only be presented in aggregate format. Please let me know if you would be prepared to participate in this study. I will then contact you to schedule an interview at your convenience. Participants will receive an electronic copy of the dissertation once it is ready. Please feel free to contact me if you have questions about this study. Your assistance is truly appreciated.

Kind

Regards

Jan Posthumus