UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW
Graduate School

Talent Identification and Talent Selection of International Software Competencies within Multinational Automotive Corporations

A qualitative study of how HR practitioners identify and select international software competencies to maintain an adequate competence basis required to manage the digitalization of the automotive industry

International Business and Trade

Master's Thesis

Spring Semester, 2017

Authors

Eliasson Wilsgaard, Therese

Walker, Alexandra

Tutor

Dr. Yakob, Ramsin

Acknowledgement

Writing this thesis has been perceived an enriching journey fortuned the thesis' authors. This privilege had nevertheless not been made possible unless the involvement of several individuals to whom we would like to express our gratitude and appreciation towards.

First of all, we would like to dedicate our gratitude towards our supervisor, Ramsin Yakob, for showing a genuine interest to our subject and a great patience, always providing us with interesting perspectives and thoughtful advice. We would also like to thank our supervisor at the automotive MNC, Lisa Stenson, who has provided us with valuable insights and experiences, but who has also showed a great commitment to improving our research. We would further like to dedicate our gratitude towards Monika Franke and Mats Lindberg for committing their trust, and showing their interest in our undertaken research at the MNC of study.

Second, we would like to thank all participating respondents at the automotive MNC of study, but also all remaining corporate parties and supporting instances that have made this research possible. We would like to express our gratitude for the time to answer our questions and all valuable inputs that made it possible to proceed the study.

Finally, we would like to thank our opponents for their feedback that have been valuable for our final paper, but also their support provided alongside our undertaken research.

Gothenburg, June 2017

……………………….   …………………………
Eliasson Wilsgaard, Therese   Walker, Alexandra

Abstract

Background　　　　The digitalization of the automotive industry demands automotive MNCs to expand their portfolio of software competencies. The improved global competition of talent has increased the importance of GTM, and the ability for HR practitioners to identify and select international and adequate software competencies.

Purpose　　　　The purpose of the thesis is to investigate how HR practitioners of automotive MNCs identify and select international software talents to maintain an adequate competence basis.

Research Question　How does HR practitioners of automotive MNCs identify and select international software talent to maintain an adequate competence basis required to manage the digitalization of the automotive industry?

Methodology　　　The research design of this thesis is based on a qualitative case study where the specific case represents an automotive MNC operating globally. In order to answer the research question and to fulfil the purpose of the thesis, the empirical data have been collected by semi-structured interviews with relevant staff and managers employed at the Product & Quality unit by the MNC of study. An abductive research process was chosen due to its ability of collecting and reviewing theories and empirical data mutually alongside the undertaken research.

Conclusion　　　A well-reasoned strategy for identifying and selecting international software talents has revealed absent by the R&D departments of study. Besides, a mutual undertaking of GTM is lacking as part of these processes in order for the automotive MNC to maintain an adequate competence basis resulting from the ongoing digitalization of the automotive industry.

Recommendations　The R&D departments of study need to seek an equal understanding and definition of GTM between recruiting managers and their supporting instances. HRBPs should further be provided increased authority in the talent identification and selection among international software candidates, thus extending their operational support to become more strategically. In addition, a more Agile mindset need to be fostered in order for recruiting managers to act more flexible and effective in their identification and selection of international software competencies.

Keywords　　　Global talent management, talent identification, talent selection, international software competencies, HR practitioners, digitalization of the automotive industry.

List of Abbreviations

GTM	-	Global Talent Management
HR	-	Human Resources
HRM	-	Human Resource Management
HRBP	-	Human Resources Business Partner
HR P&Q	-	Human Resources Product & Quality
IHRM	-	International Human Resource Management
MNC	-	Multinational Corporation
P&Q	-	Product & Quality
P&Q	-	Purchasing & Quality
R&D	-	Research & Development
RTH	-	Request to Hire
SWP	-	Strategic Workforce Planning

List of Figures

List of Tables

List of Appendix

Table of Content

1. Introduction

The introductory chapter consist of a background and a problematization. The purpose of the chapter is to present the formulated research question with support of adequate motivations and objectives. The introductory chapter thereafter finalizes with a presentation of the thesis' delimitation.

1.1 Background

The automotive industry is currently experiencing a disruptive technology-driven paradigm shift resulting from the increasing global demand for sustainable mobility (Brooke & Matthews, 2012; Gao, Kaas, Mohr, Möller & Wee, 2016; Hirsh, Jullens, Wilk & Singh, 2016). Fundamentally, the automotive business is shifting from hardware towards an intensified software orientation through the industry's digitalization (Birchall, Tovstiga & Chanaron, 2001; Gao et al., 2016). Although the digitalization of the automotive industry has been observed for years, there are three major reasons for the imminent disruption; governmental influence, technology improvements, and changing consumer preferences (Gao et al., 2016).

Stricter emission and traffic safety regulations have fostered innovations of digital solutions (Gao et al., 2016), where mobility has rather become a provided service than the supply of a manufactured vehicle (Mohr, Wee, & Möller, 2016). Further, extending the connected lifestyle, the future car will not only monitor its own working parts and integrated safety conditions, but also communicate with other vehicles and an improved intelligent roadway infrastructure (Gao et al., 2016). Besides, as part of this disruptive technology driven trend of the automotive industry, cars will become autonomously driven by sensor and processing solutions. Resulting from an increasing frequency of shared vehicles and urban car pools further, customers' acceptance for new technology has gained solid ground, and is therefore changing their mobility behaviours. Also, aligned with changed mobility behaviours, the connected lifestyle is increasingly influencing customer preferences in their choice of mobility (ibid).

The digitalization of the automotive industry is demanding new types of competencies (Brooke & Matthews, 2012). More specifically, this technology-driven paradigm shift demands automotive multinational corporations (MNCs) to expand their portfolio of software competencies (Birchall et al., 2016; Gao et al., 2016). Automotive companies aspiring to operate as truly global integrated players also require a global workforce (ibid). Meanwhile sourcing for talent across national borders has become commonality (Mullaney, 2012), HR practitioners within the automotive industry are increasingly sourcing software competencies across industry borders (Brooke & Matthews, 2012). Hence the global competition for talent has not only become intensified between traditional car manufacturers, but also between these actors and remaining industries holding an orientation within software (Gao et al., 2016).

The technology-driven paradigm shift has improved the importance of international human resource management (IHRM) (Divakaran, Mani & Post, 2012), and the practice of global talent management (GTM) (Tarique & Schuler, 2010; Brooke & Mathews, 2012). The improved global competition for talent, and an increasingly international workforce have accordingly intensified the pressure on the HR practitioners of automotive companies to identify and select talents holding adequate software competencies (Brewster & Suutari, 2005). Selecting the right talents nevertheless depends on the ability held by the HR practitioners in identifying adequate competencies (Vaiman, Scullion & Collings, 2012), why the strategic role of these key actors have become ever more crucial (Brooke & Matthews, 2012).

1.2 Problematization

Most companies involved within the digitalization of the automotive industry rely on a predominantly global workforce, (Brooke & Matthews, 2012), resulting from waves of globalization and the mobility of people across continents (Biygautane & Al Yahya, 2014). However, neither are they prepared for the ongoing technology-driven paradigm shift, nor do they hold the understanding of how to identify and select adequate competencies in order to maximise their return on investment of global talents (ibid). Fundamentally, the competition between these players has therefore target the software competencies required to sustain a competitive position within the global automotive market (Gao et al., 2016).

The most significant concerns raised by automotive companies undertaking GTM are what competencies will lead the corporation in the future, and which talents fit the next generation of the organizational puzzle (Adams, 2011). Holding an understanding of such concerns among top management of automotive MNCs is nevertheless not sufficient but must be firmly anchored among every key actor participating GTM (King, 2015). Fundamentally, the HR practitioners selecting these talents must hold an ability to identify the software competencies contemporary automotive MNCs require in order to maintain their competitiveness within the ongoing digitalization of the industry (Brooke & Matthews, 2012).

Meanwhile the digitalization of the industry tends to focus on the software competencies required by automotive companies to retain their competitiveness, (Brooke & Matthews, 2012; Goa et al., 2014; Goa et al., 2016; Hirsh et al., 2016), the role held by the HR practitioners identifying and selecting such talents is rarely questioned. The ability held by the HR practitioners identifying and selecting talents is nevertheless gaining fundamental attention (Gao et al., 2014; Jarzabkowski, Balogun & Seidl, 2007). Still, most HR practitioners such as those of automotive MNCs are frequently lacking the time and resources required to identify adequate competencies, and to make well-reasoned decisions of which talents to select (ibid). Consequently, these actors often identify and select talents based on a subset of information available (Vaiman et al., 2012), why leading to difficulties for automotive MNCs to succeed in their management of these competencies. Accordingly, two of the main challenges faced by these HR practitioners are to identify adequate competencies and to make an adequate selection of talents thereof (Brewster & Suutari, 2005). The question automotive MNCs therefore need to ask themselves is how HR practitioners identify and select international and adequate software competencies in order to maintain their competitiveness within the ongoing digitalization of the automotive industry (Brooke & Matthews, 2012).

Beginning in the 1990s, companies around the world increasingly taking part in global trade were confronted with a global talent shortage, resulting out of a demand for talented people far surpassing the supply (Schuler, Jackson & Tarique, 2011; Bucker, 2014). The threat of doing business became an instant interest among academics, and key concepts such as 'talent acquisition', 'talent retention' and 'talent management' emerged under the agreed label of 'global talent management' (Schuler et al., 2011; Scullion & Collings, 2011). The global talent shortage prompted what some McKinsey consultants termed 'the war for talent'

(Beechler & Woodward, 2009; Scullion & Collings, 2010). The competition for talents has nevertheless outlived several economic crises, and the powerful warfare for talent rages on with greater urgency than before (Bucker, 2014). Consequently, the war for talent originally quoted by McKinsey, is neither readily won, nor easily sustained (King, 2015). Consequently the ongoing battle for software competencies within the automotive industry represents a contemporary reality to this assertion (Gao et al., 2016; Brooke & Matthews).

Research suggests that interests in GTM have increased significantly during the past decade (Scullion & Collings, 2011). The role of GTM has since the 1990s gained strategic importance for MNCs, seeking to maximize talent among the workforce as a source for competitive advantage (Tarique & Schuler, 2010). Although the field of GTM holds a significant degree of interest among academic practitioners, the topic remains underdeveloped (Collings & Mellahi, 2009; Tarique & Schuler, 2010; Al Arris, 2014). Essentially, extant literature assessing how HR practitioners identify and select international and adequate competencies as part of their GTM required during former similar technology-driven paradigm shifts are conspicuous by its absence (Brooke & Matthews, 2012).

Despite its widely acknowledged relevance, GTM is poorly understood in its activity and scope (King, 2015). A key challenge is the lack of a consistent definition of GTM and its intellectual boundaries of how to differentiate itself from IHRM (Tarique & Schuler, 2010; Scullion & Collings, 2011). A second challenge is that although practitioners' interest in the topic of GTM has grown rapidly, academic research within the field has developed more slowly (Scullion & Collings, 2011). Most of extant literature within the field of GTM is practitioner and consultancy based, often over-dependent on anecdotal evidence and not well grounded among academic research. The concept has thereby been highly criticized as lacking theoretical development and an adequate definition, notably in the global context (ibid).

The role of HR practitioners has further been frequently neglected within extant GTM literature, particularly regarding MNCs' attempt to manage global talent (Farndale, Scullion & Sparrow, 2010). Fundamentally, research targeting the strategic role of the HR practitioners and the knowledge held by these actors during historical technology-driven paradigm shift within the automotive industry are lacking (Brooke & Matthews, 2012). The role of HR practitioners undertaking the identification and selection of talents has been frequently

assessed as a second-player in relation to leaders and top management (King, 2015). Although the significant impact these HR practitioners have on GTM outcomes for MNCs, the ability held by such actors in their identification and selection of adequate competencies is overlooked within extant literature (ibid). Accordingly, the ongoing digitalization of the automotive industry and its projected challenges for HR practitioners of automotive MNCs in their identification and selection of adequate software competencies hold an unexplored character (Gao, Hensley & Zielke, 2014; Gao et al., 2016).

1.3 Purpose of the Thesis

With the underlying problem discussion and background outline above, the purpose of the thesis is to investigate how HR practitioners of automotive MNCs identify and select international software talents to maintain an adequate competence basis.

1.4 Research Question

How does HR practitioners of automotive MNCs identify and select international software talents to maintain an adequate competence basis required to manage the digitalization of the automotive industry?

1.5 Delimitations

The thesis has three main delimitations. First, the thesis is solely investigating the HR practitioners, therefore excluding HR praxis and HR practices. Besides, with reference to the multiple-actors model, the HR practitioners of study are limited to line-managers and supervisors.

Second, the thesis is limited to a single case study aiming to investigate how supervisors and line managers' identify and select international and adequate software competencies. Therefore, only one automotive MNC contains the sample of which the empirical data has been gathered from.

Third and final, the thesis is limited to the R&D departments of the automotive MNC of study, as these departments are directly affected by the ongoing paradigm shift. The affection

on the whole MNC has therefore not been investigated as part of the undertaken research for the thesis.

1.6 Research Outline

Methodology
The chapter presents a thorough description of the steps of which the study was undertaken. This includes the collection of the empirical data, applied method of analysis, and research quality.

Literature Review
The chapter provides a theoretical framework of extant literature within the research field. GTM is examined in its own right, yet in the context of IHRM, where relevant concepts and theories of talent identification and talent selection are provided.

Empirical Findings
The chapter demonstrates the empirical findings gathered from the interviews, chronologically aligned with the literature review presented.

Analysis
The chapter relates empirical findings with the theoretical framework, also presents new theory emerging from the empirical data.

Conclusion
The chapter presents and summarizes the main findings generated from the thesis, accordingly answering the research question. It discusses recommendations for the corporation of study and suggests future research areas.

2. Methodology

The methodology chapter aims to outline the undertaken research strategy in a detailed and logical manner for the reader to follow. The chapter presents the research strategy, research design, research approach, data collection, and the research process applied for the thesis. The chapter ends with an account for the thesis' reliability, validity, and ethical considerations.

2.1 Research Strategy

2.1.1 A Qualitative Methodology

The research strategy chosen for the thesis is a qualitative research method. In this regard, providing the opportunity to focus on the complexity of the business-related phenomena chosen in its context (Eriksson & Kovalainen, 2015). In order to gain a deeper insight into the automotive MNC of study, a qualitative study was favoured to answer the formulated research question of *how* international and adequate software talents are identified and selected within the automotive MNC. This is particularly relevant because it provides the possibility of adopting a critical and reflexive view by the HR practitioners' identification and selection of international software talents studied in the thesis. The qualitative study is further based on both primary data collected through semi-structured interviews and the analysis of secondary data. In doing so, a more authentic picture of reality can be provided by the combination of various methods in the collection of empirical data (Bryman & Bell, 2015).

2.2 Research Design

2.2.1 A Single Case Study

The authors of the thesis have sought to gain a deeper understanding on how an automotive MNC manages to identify and select adequate and international software competencies within the field of GTM. Notably, what real time challenges the HR practitioners are currently facing in their identification and selection of new talents resulting from the digitalization of the automotive industry. Therefore, a case study was selected as it provides unique means and

tools of developing theory by utilizing in-depth insight of empirical findings and its context (Dubois & Gadde, 2002; Bloor & Wood, 2006; Baxer & Jack, 2008).

The studied case chosen for the thesis represents a recognized and multinational automotive corporation, currently facing challenges when identifying and selecting international and adequate software talents. Today, the MNC is foreign owned, however originates from Sweden where it still holds it headquarter and R&D function of study. The automotive MNC's main market is China, chronologically followed by Sweden and America, still providing worldwide operations. The automotive MNC's global operations accordingly follow within the scope of study international business and trade. Besides, being part of the automotive industry and the ongoing digitalization thereof, the case MNC consequently reach the theoretical criteria facing the challenges of maintaining an adequate competence basis.

A case study design is further considered to answer questions of 'how' and 'why' (Baxter & Jack, 2008), why a case study design was chosen thus aligned with the thesis' formulated research question. A case study is concerned with the complexity and particular nature of the actors' perceptions of reality (Bryman & Bell, 2015). The automotive MNC selected for this thesis fulfilled the requirements held by the authors in the evaluation of which case to assign the study, thus seeking to provide generalizable findings. The authors requested an automotive MNC facing relevant challenges for the purpose of the thesis due to the ongoing digitalization within the industry. Since the case study aims to perform an in-depth analysis of how HR practitioners identify and select international and adequate software competencies within the field of GTM, the R&D departments at the automotive MNC were argued the most suitable. The MNC of study is therefore considered suited for the thesis' research question in order to gain a deeper understanding of how an automotive MNC seeks to maintain an adequate competence basis as part of their undertaken GTM.

Important is nevertheless to set boundaries to a case study in order to prevent becoming too broad or having too many objectives for the research (Baxter & Jack, 2008). Taking this consideration into account, the case study is primarily targeting recruiting managers of the R&D departments at the automotive MNC. A further limitation considers how HR practitioners identify and select adequate and international software competencies in order for the MNC to manage the ongoing digitalization. Finally, the case study is limited by a concise definition of GTM and its context in which it appears. Aligned with several others (Bloor &

Wood, 2006; Bryman & Bell, 2015), and as the case study is bounded toboth place, departments and context, the undertaken research can be claimed a single case study.

2.3 Research Approach

2.3.1. An Abductive Research Process

Extant literature within the theoretical fields of IHRM and GTM have been thoroughly reviewed in order for the thesis' authors to enhance their preconceptions within the area of study, and for the provision of the thesis' theoretical framework, presented in the following chapter. As noted earlier, the theoretical framework applied to this thesis targets the field of GTM in the perspective of HR practitioners undertaking the identification and selection of international talent. Yet, in the context of IHRM. The literature review thereby primarily targets extant literature within the field of GTM, why only an introduction of IHRM is provided within the thesis' theoretical chapter.

Beginning the reviewing process for theories and concepts within the field of GTM, it was found that the definition was lacking a consistent explanation, and varied depending on the context in which it appears (Tarique & Schuler, 2010; Scullion & Collings, 2011; Al Arris, 2014). In addition, extant literature assessing former technology-driven paradigm shifts within the automotive industry and how HR practitioners identify and select new competencies were revealed to be significantly lacking. Accordingly, findings were confronted in the empirical data that were hard to anticipate beforehand. Further, in order to be able to ask relevant questions during the interviews, the authors assumed it necessary to apply selected theories associated to GTM, talent identification and talent selection. Before the theoretical chapter was successfully modified, the order of the theories and empirical data was reviewed and collected mutually alongside the undertaken research. The method of confronting theory with empirical findings is moreover associated with a 'systematic combining' (Dubois & Gadde, 2002, p. 555). Systematic combining has been inspired by what is referred to as abduction, which is about 'investigating the relationship between everyday language and concepts' (Dubois & Gadde, 2002. p. 555), thus pendulating back and forth from one type of research activity to another (ibid).

The abductive research process was appropriate since the study has a qualitative research approach, being more flexible in character and feasibility to the type of data collection. Undertaking an abductive research process, theory should be developed in what Bryman and Bell (2015) terms a 'data-driven manner' (p. 26), yet provide a dialogical process between theory and the collection of empirical data (ibid). An abductive research process provides opportunities for the researcher to avoid irrelevant facts (Eriksson & Kovalainen, 2015), and to expand both theory and empirical findings (Dubois & Gadde, 2002). Hence particularly important due to the lack of consistency within the literature field of GTM, an abductive research process was favoured to maintain this flexible character.

2.4. Data Collection

2.4.1 Primary Data

The primary data collected for the thesis take the form of qualitative and semi-structured interviews, which according to Bryman and Bell (2015) is the most common and widely applied method when undertaking qualitative research.

Qualitative Semi-structured Interviews

In order to collect adequate data, semi-structured interviews were being conducted with relevant staff either employed within, or providing support to, the R&D departments by the MNC of study. Undertaking a semi-structured method provides flexible and credible data offering the respondents an opportunity to develop a reasoning (Bryman & Bell, 2015) and to ask follow-up questions to develop different theories during the interview situation. Additionally, a semi-structured interview was argued being more relaxing than a structured interview, contributing to a more comfortable feeling received by the respondent. Also, as the thesis takes the form of a case study seeking a more in-depth insight of empirical findings and its context, semi-structured interviews were considered the most suitable way of collecting data to provide a high response rate. Adjustments of questions were made during the interview in order to adapt questions to the specific individual. Fundamentally, making the interviews more informative and personal, thereby improving the thesis' reliability.

Sampling Process

An invitation was sent to the thesis' authors for a meeting with one of the Vice Presidents at the automotive MNC. The meeting aimed to provide background information and a problematization concerning the automotive MNC in relation to the ongoing digitalization of the automotive industry. Thereafter, an inspirational meeting was held with the Senior Director of the HR Product and Quality unit at the automotive MNC, in order to gain deeper knowledge of the targeted unit and departments of study. A problematization of which the unit is currently facing when sourcing international software competencies was presented during the meeting. The inspirational meeting also aimed to exchange ideas, resulting in a formulation of the thesis' purpose. The authors of the thesis were thereafter assigned a corporate supervisor, positioned as a Change Manager across the departments of study, who has provided relevant names and contact details for potential respondents. Supervising sessions have thereafter been held alongside the undertaken research, where the corporate supervisor has provided the authors relevant guidance and support.

As previously noted, the corporate supervisor has supported the delegation of relevant respondents in order to guide the authors in establishing contacts with relevant respondents. The corporate supervisor appointed a sample of respondents either positioned within, or providing supporting for, one among the R&D departments of study. Seeking a broad perspective and for the avoidance of biases, a sample providing an overview of the departments of study were considered important to increase the thesis' reliability and validity. Fundamentally, both recruiting managers and supporting instances of these HR practitioners therefore include the sample. Established contacts with relevant respondents have moreover fostered the delegation of new relevant respondents and hence extended the sample size alongside the collection of primary data. In accordance, what Bloor and Wood (2006) term the process of snowball sampling has been applied. Still, the selected sample of respondents has in this context been guided by the purpose of the thesis and the research question. The sample of only 10 respondents and the low frequency of international respondents have nevertheless been taken into consideration due to the potential in generating biased results. These limitations are elaborated upon and discussed in terms of research validity in subchapter 2.7.2.

Every respondent is directly involved within the ongoing digitalization of the automotive industry, and the current challenges the R&D departments are facing thereof. Further, all the respondents are, either directly or indirectly, involved with the HR practitioners managing the identification and selection of international software talents. Again, the respondents' are therefore either recruiting managers of software talents, or act as a supporting partner for such managers in their identification and selection of these talents. The selected sample of respondents is neither dependent on age nor on gender or nationality. Instead, the sampling is rather based on line managers and remaining instances related to the R&D departments at the automotive MNC. There has further been an equal distribution between women and men in the sample, however, a distribution not instinctively sampled. Furthermore, even though convenience sampling is simply available to the researcher, it is also impossible to generalize such proved findings (Bryman & Bell, 2015). Therefore, the authors of the thesis have abandoned that sampling approach due to the risk of acting on the expense of the empirical findings' credibility. This was accordingly asked to be taken into consideration when receiving support from established contacts in the process of snowball sampling.

2.4.2. Secondary Data

Secondary data was initially collected in order for the authors to gain a worthy understanding of the digitalization of the automotive industry, and what challenges automotive MNCs are currently facing due to the ongoing paradigm shift. The benefit of using secondary data is primarily the time saving aspect (Bryman & Bell, 2015), why considered preferably as the thesis is restrained with a time limit. Besides, secondary data provides a vast amount of information due to its ease of access (Bryman & Bell, 2015), again favoured by the thesis' authors with reference to the time saving aspect.

Selection of Secondary Data

The secondary data collected for this thesis contain textbooks, scientific journals, and electronic sources taking the form of academic e-journals, e-books, online news articles, online consultancy reports, and online PDFs. Sourcing and collecting secondary data from various sources improves the provision of relevant information and enhances research validity (Bryman & Bell, 2015). The sourcing process for collecting secondary data has been conducted at the library by the University of Gothenburg just as the public library of

Gothenburg city. The sourcing process for electronic secondary data has been supported by the searching catalogues GUNDA and UB provided by the University of Gothenburg, School of Business, Economics and Law. Besides, the search engine Google Scholar has complemented the sourcing process for electronic secondary data. The first key concepts used in the overall search were 'digitalization of the automotive industry', 'trend automotive industry', 'development automotive industry' and 'technology-driven paradigm shift of the automotive industry'. The searching process followed by searching key concepts such as 'global talent management', 'talent management', 'global recruitment', 'HR practitioners', 'talent identification' and 'talent selection'.

2.5. The Research Process

2.5.1. Interview Guide & Interview Process

An interview guide was established prior to the interviews, which structure was solely guided by the literature review of GTM, notably talent identification and talent selection. According to Bryman and Bell (2015), establishing an interview guide facilitates the interview although holding a semi-structured orientation. Access to the interview guide was provided a few days beforehand the occasion, thus claimed by Bryman and Bell (2015) making the respondents feel more comfortable and aware of the topic just as their contribution to the content. Before conducting the empirical data, the interview guide presented in Appendix 1, was accordingly established, containing a list of questions on fairly specific topics. The interview guide was holding a structure aligned with the thesis' theoretical framework to ensure each topic was covered during the interview sessions. The interview questions were categorized into different themes starting with a general background with the purpose to make the respondent feel comfortable. Remaining themes were aligned with the theoretical framework including 'the digitalization of the automotive industry', 'IHRM', 'GTM', 'talent identification', and 'talent selection'. The grouped categorises made it easier reading replies and to follow a chronological order in accordance with the structure of the thesis.

Applying a semi-structured interview approach gave room for flexibility and topical trajectories that strayed from the guide when feeling appropriate. Hence the inclusion of open-ended questions generated opportunities to identify a new way of seeing and understanding the topic at hand. Besides, providing a flexible and to some extent open

questions contribute to more authentic, spontaneous and therefore reliable answers (Häger, 2007). Accordingly, every interview introduced with a presentation of the topic from the respondent's perspective, thus in order to identify his or her practical experience and perception of what each topic may entail. In this regard, the authors sought to receive an illustration of each topic absent nuances, before continuing the questionnaire towards more detailed questions in accordance with the theoretical framework presented above. A semi-structured approach moreover facilitated the forthcoming transcriptions.

Most of the questions were naturally applied during the interviews and have later on been transcribed and analysed. The majority of the questions began with 'how' and 'what', which according to Bryman and Bell (2015), seek more in-depth answers. Further, the questions have also been tested through a pilot interview, which according to Larsson (2010) is conducted when an interview guide examines its function and quality. A pilot interview was therefore primarily undertaken to test if the order of the questions was docile, and to approximately estimate a suitable timeframe for each interview. The pilot interview was undertaken together with the corporate supervisor, and a discussion of how the guide could be modified in order to improve its quality was conducted afterwards. The interview guide was then revised to follow a more adequate order of the questions.

All respondents received the interview guide beforehand to prepare themselves for the purpose of the thesis. In order to make the respondents feeling comfortable, the authors welcomed the respondent with a brief presentation of themselves, following a presentation of the thesis' purpose. The respondent was further asked to provide a short presentation of themselves, including the respondent's academic and practical experience, just as their current position and commission at the MNC of study. Hence introducing an interview with general and open questions, the interview process can become more relaxed (Bryman & Bell, 2015). All of the interviews were scheduled for 60 minutes, although some of the interviews lasted longer and some shorter, the time deviations were equally insignificant.

All interviews have been conducted individually for primarily two reasons. First, when applying semi-structured questions the respondent could please oneself without being affected by someone else's thoughts or opinions (Bryman & Bell, 2015). The interviews have in this matter been effective and provided scope of interesting and concrete reasoning. Second, the respondents have the ability to talk more freely and relaxed than if undertaking the interview

individually (Eriksson & Kovalainen, 2015). The respondents could therefore provide more credible answers. Conducting an interview of no more than one person was consequently considered favourable to seek the collection of reliable and transparent primary data. All details of each respondent are stated below in Table 1, all respondents are yet listed anonymously due to ethical considerations.

Name	Position/Title	Gender	Date and Time	Duration	Transliteration
Respondent A	Change Manager; Product Development & Transformation	Female	Date: 3/3 Time: 09.30 Date: 8/3 Time: 12.00	1 h 5 min 55 min	3 h 55 min 3h 15 min
Respondent B	Change Manager, Product Development, R&D	Male	Date: 20/2 Time: 15.00	55 min	3 h 15 min
Respondent C	Sensor Fusion Manager, Protective Environment, R&D. Recruiting Manager (i.e. supervisors and line managers)	Female	Date: 21/2 Time: 13.00	1 h 15 min	3 h 40 min
Respondent D	IT Director, Product and quality, R&D. Recruiting Manager (i.e. supervisors and line managers)	Male	Date: 17/2 Time: 09.00	1h 06 min	3 h 02 min
Respondent E	Strategic Operational Development, R&D	Male	Date: 17/2 Time: 11.00	51 min	3 h 15 min
Respondent F	Change Manager; Product Development & Transformation	Male	Date: 3/3 Time: 09.30 Date: 8/3 Time: 12.00	57 min 55 min	3 h 45 min 3 h 35 min
Respondent G	HR Business Partner	Female	Date: 21/2 Time: 09.00	31 min	1 h 30 min

Respondent H	Project Manager for recruitment, R&D	Female	Date: 21/2 Time: 11.00	57 min	3 h 45 min
Respondent I	Connectivity System Manager, R&D. Recruiting Manager (i.e. supervisors and line managers)	Male	Date: 28/2 Time: 10.00	1 h 02 min	3 h 30 min
Respondent J	HR Business Partner	Female	Date: 21/2 Time: 09.00	31 min	1 h 30 min

Table 1. *Information about the Respondents*

The website 'www.doodle.com*'* was used in order to schedule a predefined number and times of interview occasions. The schedule was sent by a direct link through email where the respondents could choose between predetermined interview sessions. All predetermined interview sessions were scheduled an hour respectively. Nevertheless, illnesses appeared from two of the respondents, resulting in some additional rearrangements concerning the scheduling of those interviews. The corporate supervisor assisted with room reservations for every interview session, which were soundproofed and well suited for the activity of interviews in particular.

2.6 Analysis and interpretation of data

2.6.1 Processing of Material

To seek convenience in the access of interview material, the interviews have been recorded with the allowance gained from each respondent. Recording the interviews also permitted repeated examinations of the respondents' answers. Further, in order to avoid background noise and disturbance, the reserved rooms holding an isolated character prevented such concerns. High quality of the recording could thereby be maintained, seeking to prevent difficulties later in the transcription process. As noted earlier, all interviews have been transcribed after the time of interview. The transcriptions are carefully submitted, exclusively

documenting every word recorded. Murmurs, coughing or similar have on the other hand been excluded in the transcription to streamline the transcription process.

In order to efficiently analyse the collected data, the authors applied what Bloor and Wood (2006) refer to as 'indexing' (p. 101). Indexing, also termed coding, is an activity where the researcher applies meaning to raw data by assigning key words or phrases (Bloor & Wood, 2006). 'Indexing is an activity by which data is broken down, conceptualized and then reformulated' (p. 101). This data retrieval was used due to its ability to easily allocate respective answers to each theory or model applied within the thesis' literature framework. The coding were done manually starting with re-reading the transcriptions several times. In doing so, a general sense of meanings in order to increase the familiarization of the data can be obtained (Bloor & Wood, 2006).

The first stage is open coding whereby the researcher scrutinizes data and breaks it down into thematic categories (Bloor & Wood, 2006). Sections of text in the empirical data were accordingly marked or 'tagged' manually, with particular codes and frequently with more than one code being assigned to a given piece of text. Keywords consequently act as signposts to themes within the data (Bloor & Wood, 2006). The authors thereby scrutinized data held within each code and re-coded the data by creating sub-categories of codes. These sub-categories were later categorized into appropriate themes emerging alongside the coding, again in accordance with the structure of the thesis' literature framework.

The nine main themes that emerged out from the categorizing where 'digitalization of the automotive industry', 'the Agile organization', 'global talent management', 'the HR function', 'HR practitioners' (i.e. recruiting managers), 'the recruitment process', 'talent identification', and 'talent selection'. The findings within each of the themes were then compared to seek differences and similarities incorporated within thoughts and statements provided during the interviews. Resulting from the coding and by the application of an abductive research process, some theories presented in the theoretical framework were consequently not stressed in the empirical data, and thus not emphasised in the analysis. In parallel, coding the collected empirical data also generated new theories, accordingly presented in the chapter of analysis. The empirical data is presented in themes, thereby refocusing the findings from personal opinions and statements towards a general perception

of how the MNC manages GTM as part of the ongoing digitalization. However, one way of highlighting important statements was the illustration through quotes.

2.7 Research Quality

2.7.1 Reliability

Reliability refers to the extent of which findings can be replicated and thereby achieve the same results (Bryman & Bell, 2015). The dynamic environment is probability affecting all departments at the MNC, including those of R&D and their HR practitioners. It is therefore considered difficult to achieve complete reliability due to the rapid changes in technology and the ongoing digitalization of the automotive industry. Replicating the study in the near future would, however, contribute to improved reliability. Further, in order to ensure reliability, also termed dependability, an examination of trustworthiness is crucial (Golafshani, 2003). In the thesis, replicating the study and thus contributing to a high reliability could potentially be achieved if following the research process outlined in subchapter 2.6. Accordingly, this ensures that a description of the sampling and transcription processes are kept available, and that the analysis and interpretation of data are provided in an accessible manner (Bryman & Bell, 2015). It is moreover likely impossible to freeze the circumstances of an initial study and a social setting why qualitative researchers struggle in their work to provide replicable studies (ibid). In an attempt to seek external reliability, the various research methods are therefore outlined to the extent possible in the thesis' methodology chapter to provide opportunities for replicating the study.

The methodology chapter has been carefully documented in a logical manner to make it possible for other readers to replicate the study. The context it appears within, respondents' position presented in Table 1, the interview guide presented in Appendix 1, and research methods are all traceable in the methodology chapter for future researcher to replicate the process and hence reach the same or similar results. In doing so, the dependability has been enhanced (Golafshani, 2003), but also empirical findings' trustworthiness being ensured (Eriksson & Kovalainen, 2015).

2.7.2. Validity

According to Bryman and Bell (2011) 'validity refers to whether you are observing, identifying, or 'measuring' what you say you are' (p. 395). For a thesis to obtain high validity it requires careful consideration regarding the selection of method, which depends on what to investigate (ibid). As a qualitative research method is concerned with interpretation and understanding from the researcher (Eriksson & Kovalainen, 2015), a qualitative research method was favoured by the thesis' authors.

Validity can further be divided and evaluated in external and internal terms (Bryman & Bell, 2015). Internal validity, also termed credibility, refers to the question; 'how congruent are the findings with reality?' (Shenton, 2004, p. 64). As noted earlier, the first sample of respondents was solely generated by the corporate supervisor, which may imply certain limitations for the collected data generated during interviews. In this regard, harming empirical findings' internal validity. Respondents have thereby potentially been sampled for the provision of biased opinions expressed either in favour or disfavour for the automotive MNC, thus resulting in the collection of less credible data. Nevertheless, in order to assure empirical findings' internal validity and to avoid the generation of a convenience sample, again, the application of snowball sampling complemented the sampling process.

As noted above, the empirical findings' potential biases in terms of their internal validity may further be due to the small sample size and the low frequency of international respondents, but also due to the authors' backgrounds. There is consequently a risk that respondents and researchers interfere with the study and thereby skews the direction of it, which makes it biased (Bryman & Bell, 2015). Since the study is undertaken by two young Swedish girls, both holding a high university degree and international ancestry, the authors' interpretation of the empirical findings may be biased. In this matter, empirical findings may have been interpreted differently if the study had been undertaken by another or several other male or female researchers holding different academic and national backgrounds. With this in mind, the authors of this thesis have continuously been questioning the level of bias in each step of analysing empirical findings to strengthen the thesis' internal validity.

Ensuring internal validity is one of the most important factors establishing trustworthiness (Bryman & Bell, 2015). Triangulation of sources has been used when valuable information

and statements were found from uncertain sources, or to underpin critical statements. To secure the internal validity of research findings further, triangulation has been used as a means of internal validity. Yet, the thesis is undertaken in partnership with the R&D departments at the MNC of study, which implies certain constraints imposed by the automotive MNC. Consequently, this implies two main limitations for the empirical findings' internal validity. First, respondents may not provide credible answers due to confidentiality concerns, therefore avoiding leaving out relevant data for the undertaken study, however, critical for the automotive MNC if being publicly available. Second, although all respondents are kept anonymous, respondents may still feel uncomfortable in providing credible and trustworthy answers to delicate questions, which opinions may imply criticism towards the automotive MNC. These two constraints have accordingly been taken into consideration when analysing the empirical data, and how they potentially limit the thesis' conclusions thereof. Moreover, in order to receive a more credible picture of the context, various sets of research methods were used to confirm the understanding of what is studied (Bryman & Bell, 2015). As noted earlier, the primary data is complemented with both physical and electronic secondary data, thereby leveraging the validity of the content generated during interviews.

External validity, also termed transferability, is concerned with the extent to which the findings of the thesis can be applied, transferred and generalized to other contexts (Bryman & Bell, 2015). It has been argued that case studies are too situation specific and, therefore, raises difficulties seeking external validity and so generalizability (ibid). To enhance the external validity, the thesis is conducted through an in-depth case study, deepening the understanding of the interaction between the phenomenon and the context. With reference of not leaving out confidential corporate information, this may also limit the external validity and hence the empirical findings' generalizability due to their potential biases.

2.8 Ethical Considerations

The ethical implications have been carefully considered when conducting the interviews. All respondents have beforehand received information of the content covering the introduction of the thesis. As noted earlier, all respondents received an interview guide in advance to the interviews. In doing so, respondents could feel prepared and informed for the upcoming interview session. All respondents were further asked for permission of recording the interview. They have also been informed that transcripts and recording will be used only for

the purpose of analysing and not to be included in the final version of the thesis. As the thesis will be publicly published, all respondents have been labelled 'Respondent A' until 'Respondent J', in order to maintain their anonymity. Accordingly, identities and records of individuals can be maintained as confidential (Bryman & Bell, 2015). Additionally, informing the respondents increase the credibility and allows them to feel comfortable in the interview situation (ibid). Thus the ethical principles, discussed by Bryman and Bell (2015), whether there is; harm to participants, lack of informed consent, invasion of privacy, and deception (p. 128), have all been carefully considered.

3. Theoretical Framework

The theoretical chapter gives a presentation of the literature framework reviewed, including models, theories and key concepts considered relevant for the thesis executive. The theoretical framework provided holds an orientation within the international human resource management (IHRM) literature, targeting the research field of global talent management (GTM). Notably, the HR practitioners undertaking talent identification and talent selection.

3.1. Introducing International Human Resource Management

3.1.1 Defining International Human Resource Management

International Human Resource Management (IHRM) is the management of human resources on a global basis (Schuler, Budhwar & Florkowski, 2002; Harzing & Pinnington, 2015). IHRM enables MNCs to sustain their international competitiveness, and effective IHRM can make the difference between survival and extinction for many MNCs (Schuler et al., 2002). To highlight its importance, Schuler et al. (2002) emphasize the undertaking of IHRM as an enabler for MNCs to be locally responsive, efficient, adaptable, flexible within the shortest of time, and finally capable of transferring knowledge and learning across their globally dispersed units.

Among extant IHRM research examining its processes, policies and philosophy within MNCs, research on IHRM practices at the firm level is arguably the dominated (Boselie, Dietz & Boon, 2005; Guest, 2011; Monks, Kelly, Conway, Flood, Truss & Hannon, 2013). In particular, this is due to the relative ease in measurement and therefore its quantifiable orientation (ibid). Further, IHRM has been confronted with several challenges such as an intensified global economic development, worldwide communications, rapid transfer of new technology, and the extensive mobility of people (Vaiman et al., 2012). Among others, the ongoing digitalization of the automotive industry has implied new types of challenges for automotive MNCs undertaking IHRM, such as the management of software competencies (Brooke & Matthews, 2012). Consequently, the importance of maximizing talent among individuals and to manage global talent effectively has emerged as a source for competitive

advantage (Vaiman et al., 2012). As noted above, the field of GTM has resultantly emerged out of the IHRM literature as a united term for HR practitioners to manage these challenges (ibid). In an international context of HRM, GTM is thereby the set of HRM activities managing talent for differentiated roles (King, 2015). Nevertheless, a more exhaustive presentation of the IHRM literature field extends beyond this thesis. As noted earlier, the theoretical framework of this thesis targets GTM, yet in the context of IHRM. A presentation of extant theories and concepts of GTM in the context of IHRM follows accordingly, and continues by an introduction to the HR practitioners managing GTM.

3.2 Exploring Global Talent Management and its Practitioners

3.2.1 Introducing and Defining Global Talent Management

As noted earlier, GTM lacks a consistent definition and clear conceptual boundaries (Tarique & Schuler, 2010; Scullion & Collings, 2011; King, 2015). Various readings of the term 'global talent management' have therefore resulted in a multifold character of its meaning (Al Arris, 2014). Equal with several others (e.g. Roberts, Kossek & Ozeki 1998; Collings & Mellahi, 2009; King, 2015), however, most of the meanings defining GTM agree that a maximization of talent potentials will lead to improved corporate performance (Al Arris, 2014). The definition of GTM varies depending on the setting in which it appears, but is frequently examined in the context of IHRM (Tarique & Schuler, 2010). In that sense, GTM has traditionally been translated into a rebranded version of the old international HR practices used in a more systematic and efficient way (Al Arris, 2014).

Lewis and Heckman (2006) have identified three key streams of thinking within talent management, thus argued by Scullion and Collings (2011) as equally translated to GTM. Aligned with Al Arris (2014), Lewis and Heckman (2006) confirm the first stream of particular HR practices such as leadership, recruitment, and development. In this regard, GTM refers to the management of all employees (i.e. the inclusive approach) (Al Arris, 2014). Descended from the manpower or succession planning literatures, the second stream emphasizes the development of talent pools and how positions through these pools should be secured throughout the MNC (Scullion & Collings, 2011). The third stream focuses on the management of talented (e.g. high-achieving) people globally (Scullion & Collings, 2011), commonly referred to as the exclusive approach (Al Arris, 2014). In addition to these three

streams, a fourth stream within GTM has been identified by Collings & Mellahi (2009), emphasizing the identification of key positions holding the potential to differentially impact the competitive advantage of the MNC.

According to Scullion and Collings (2011), the wide variation in defining GTM within literature has raised two key challenges. First, scholars in this area need to gain clarity and build consensus regarding the meaning of GTM from both empirical and theoretical perspectives. Second, GTM needs to be differentiated from IHRM to fully establish itself as a field of study in its own right (ibid). Yet, the contemporary understanding remains unclear of which definition that offers the most accurate representation of GTM (Al Arris, 2014). In its broadest meaning, GTM in the context of IHRM has come to represent the challenges faced by MNCs to attract, develop and retain necessary talent for their international operations (Tarique & Schuler, 2010). Hence focusing on a key group of individuals rather than the MNC's entire pool of employees (Scullion & Collings, 2010). This definition holds an international focus and emphasizes the role of MNCs' internal systems (e.g. recruitment processes) to ensure talents are identified, selected and retained to optimize the MNC's strategic priorities (Scullion & Collings, 2011). As the field continues to grow and increasingly evolves towards maturity, the emergence of a consensus around the definition and intellectual boundaries of GTM is, against all odds, seemingly shaping (Scullion & Collings, 2011). While several definitions and meanings of GTM have been identified within the literature, Tarique and Schuler (2010) provide the following;

> Global Talent Management is about systematically utilizing IHRM activities (complementary HRM policies and policies) to attract, develop, and retain individuals with high levels of human capital (e.g. competency, personality, motivation) consistent with the strategic directions of the multinational enterprise in a dynamic, highly competitive, and global environment (p. 124).

The purpose of this thesis is to investigate how HR practitioners within automotive MNCs identify and select international software competencies as part of their undertaken GTM to maintain an adequate competence basis resulting from the technology-driven paradigm shift. The target of this thesis accordingly remains with the knowledge held by these actors in their undertaking of GTM. The authors of this thesis acknowledge from the outset that GTM is in its infancy in terms of development. The discussion of GTM within the context of

consideration is therefore guiding the most appropriate definition applied to the thesis. Consequently, the definition of GTM provided by Tarique and Schuler (2010) holds a too narrow meaning to be aligned with the purpose of the thesis. Building on Scullion and Collings (2011), the definition of GTM applied to this thesis is accordingly;

> Global talent Management includes all organizational activities for the purpose of identifying, selecting, developing, and retaining the best employees in the most strategic roles on a global scale. Global talent management takes into account the differences in both organizations' global strategic priorities as well as the differences across national contexts for how talent should be managed in the countries where they operate (p. 6).

There is neither consensus regarding the exact practices that should include the umbrella of the term 'global talent management' (Lewis & Heckman, 2006; Tarique & Schuler, 2010). The practice of identifying talent is, however, considered one of the most critical elements of any talent management system (McDonnell & Collings, 2010; McDonnell, Hickey & Gunnigle, 2011). Likewise, talent selection is argued as an important practice within GTM (Boudreau & Ramstad, 2007; Vaiman et al., 2012; Perkins & Arvinen-Muondo, 2013). As a response, the thesis is primarily concerned with the talent identification and talent selection aspect of GTM. Yet, before introducing the HR practitioners and the targeted GTM practices previously noted, the following subsection clarifies how GTM can be examined in its own right, yet in the context of IHRM.

3.2.2 Distinguishing GTM from IHRM

While practitioners and academics may differ in the definition and meaning of GTM, Tarique and Schuler (2010) suggest three considerable differences between GTM and IHRM. First, GTM includes fewer stakeholders. The field of IHRM include a wider variety of stakeholders, such as customers, suppliers, investors, employees, societies and the MNC itself. Although it might be argued that GTM can impact the same variety of stakeholders, the most immediate and significant impacts of GTM remain with the employees and the MNC itself. Second, GTM addresses narrower concerns and criteria (ibid). Hence a wider stakeholder portfolio implies broader concerns than the identification, selection, development and retainment of talented employees (Scullion & Collings, 2011). Accordingly, the criteria against which

activities should be undertaken by HR practitioners of GTM should be evaluated more specifically to the MNC and its employees (Tarique & Schuler, 2010). Third, GTM encompasses less HR policies and practices. Within the field of IHRM, there are several HR policies and practices such as staffing, planning, training and developing, appraising, and compensating. Incorporated within each of these policies and practices, there are several more choices and topics for researchers to select and utilize. Conversely, GTM focuses only on a sub-set of topics in each activity (ibid). Indeed, GTM may find itself to primarily focus on those activities that are frequently defined by its meaning of identifying, selecting, developing and retaining (Scullion & Collings, 2011). Holding this background, the field of GTM can be investigated without significant inclusion to a broader set of concerns and the multiple set of stakeholders traditionally related to IHRM (Scullion & Collings, 2011). In this sense, GTM can be examined in the context of IHRM (ibid).

3.2.3 Introducing and Defining HR Practitioners of GTM

The role and agency of HR practitioners, including both HR functions collectively and key actors individually, are conspicuous by its absence within the IHRM literature (Björkman, Ehrnrooth, Mäkelä, Smale & Sumelius, 2014; Rupidara & McGraw, 2011). Fundamentally, extant literature assessing the HR practitioners undertaking of GTM within MNCs are lacking (Farndale, Scullion & Sparrow, 2010),notably, during similar technology-driven paradigm shift as the ongoing digitalization of the automotive industry (Brooke & Matthews, 2012). In addition, line-managers, external the HR function still internal the MNC, have attracted some albeit limited research attention (Björkman et al., 2014). Meanwhile line-managers are widely acknowledged to represent key practitioners in IHRM, the devolution of responsibilities to the line has according to Björkman et al (2014) amplified role ambiguities and conflict. A consequence has accordingly been HR departments reluctant to accelerate this. The authors therefore argue extant literature within IHRM and GTM to uphold a quite narrow definition of HR practitioners (ibid).

Among extant literature assessing HR practitioners, the main thrust of this research has in parallel been delineated HR roles considered operational (e.g. functional or technical) vs strategic, and the HR departments' provision to management and employees (Björkman et al., 2014). The provided typologies of the broader understanding of HR professionals and practitioners tend to downplay the realities faced by them, how they enact their roles, the

macro- meso- and micro-level of 'practices' undertaken, and the praxis they participate in (Björkman et al., 2014). Björkman et al. (2014) therefore argue extant literature within IHRM, including that of GTM, to benefit from a more actor-centric approach targeting a more dynamic perspective on the role of HR practitioners in particular, and the exploration of their strategic role within MNCs in general. In parallel to this request, Brooke and Matthews (2012) demand more research on the role of HR practitioners managing GTM during paradigm shifts demanding new competencies, but also the reformulation of where to source and how to recruit such competencies.

Inspired by the conceptual framework of the three concepts; praxis, practices and practitioners provided by Jarzabkowski and Spee (2009), the authors of the thesis believe that the conceptual tripod constructed by Björkamn et al. (2014) can be usefully translated to the GTM context. Practices of GTM include the different cognitive, behavioural, procedural, discursive and physical resources through which the HR practitioners interplay to realize a collective activity (Björkamn et al., 2014). Further, the concept of praxis may span various groups, branches, MNCs, industries and even nations (ibid). According to Björkman et al. (2014), praxis can be linked to corporate culture, subcultures and the understanding of 'the way things are done around here' (p. 125). Praxis thereby relates to collective social activities, in this context collectively constructed by the HR practitioners undertaking GTM (Björkman et al, 2014). Yet, seeking to fill the observed gap of assessing the intersection of these three interrelated GTM constructs, this opens up several potentially interesting new research questions. Among others, Björkman et al. (2014) argues for the individual-level activity as an important and interesting element constructing GTM praxis and practises. Björkman et al. (2014) accordingly request new research to assess how HR practitioners can become more effective and influential organizational agents as part of GTM within MNCs.

Although the importance in assessing the intersection of praxis, practices and practitioners conceptualized in the GTM tripod (Björkman et al., 2014), it is therefore the perspective of the HR practitioners, which will remain the focus of this thesis. The remaining two legs previously defined (i.e. praxis and practices,) will therefore not be further elaborated upon. The application of the conceptual tripod in this thesis thereby acts as a framework to distinguish the HR practitioners from its interrelated practices and praxis when undertaking GTM. Moreover, in their conceptual model, Björkman et al. (2014) define practitioners as 'the actors involved and engaged in the construction of professional practice, highlighting the

importance of both the situated and person-specific knowledge and skills of involved actors, and their agency' (p. 124). This definition will hold the basis when referring to HR practitioners in this thesis.

Effective GTM nevertheless requires the involvement of multiple actors facilitating the movement beyond process to practice in a coherent and business-embedded activity (King, 2015). In turn, King (2015) distinguishes between top management and leaders, supervisors and line-managers, HR and talent managers, and the talent pool of employees. Collectively representing the core actors of GTM (King, 2015), each of these roles will be individually outlined in the following. Upon the request of extant researchers within the field of GTM (Björman et al., 2014), and with reference to the reasoning above, the HR practitioners targeted for this thesis are line-managers and supervisors of MNCs. This conclusion further alingnes the theoretical target of the thesis, being talent identification and talent selection within GTM, commonly undertaken by these HR practitioners thus elaborated upon in the following.

3.2.4 Introducing a Multiple-Actors Model

A corporate 'talent climate' is established through the talent system where activities managed by HR practitioners creates value (King, 2015). A multiple-actors model presented in Figure 1 illustrates the inter-relatedness of the four key HR practitioners managing talent for the business (ibid). Thus, King (2015) argues, taking a systems view, the interaction of the collective set of these core practitioners creates the activity of GTM why none of them can be presented without including the remaining three (ibid). As noted above, the perspective of this thesis is held from one of these four key actors, namely supervisors and line-managers, why highlighted in Figure 1. The reason for this is accordingly these HR practitioners' responsibility for talent identification and talent selection within MNCs, hence the thesis' theoretical target within the GTM literature.

Figure 1. *A Multiple-Actors Model.* Source: inspired by King, 2015.

The Role of Top Management in GTM: talent strategy and climate

Practitioner and academic perspectives agree that management's involvement is a crucial criteria for the effectiveness in how MNCs manage their talent (King, 2015). Top management governs GTM as a business imperative, defines talent strategy and business requirements for talent later leading to talent identification. Moreover, the voice of management and leadership is central to the formatting of the MNC's 'talent climate', perceptible by managers, supervisors, HR and remaining employees participating GTM (ibid). Hence leaders and top management play large part constructing praxises of GTM (Björkman et al., 2014).

The Role of Line-Managers and Supervisors in GTM: talent practices

Extant literature within GTM and HRM in an international context has tended to overlook the importance of multiple actors focusing primarily on top management and less on the roles of supervisors and line-managers (King, 2015). However, these actors are recognized to manage the identification, selection, deployment, development and promotion of talent as a day to day operation of the business. After identifying adequate competencies, supervisors and line-managers are those HR practitioners selecting which talents to recruit (ibid). These actors, King (2015) argues, are expected to have a meaningful degree of influence on GTM

outcomes. Further, as satisfaction with HR practices and quality of leader behaviour each contribute to job commitment among employees, supervisor and line-manager roles are considered vital. Nevertheless, researchers call for future research to understand these actors' delivery of policy in practice (ibid).

The role of HR and Talent Managers in GTM: talent systems

Views on the importance of the HR function continue to differ between HR and the remaining business (King, 2015). However, aligning the relationship between the business and its workforce, the HR function represents a key role by the delivery of strategy through people, acting as a crucial partner. In this regard, enabling the interface between corporate actors. HR and talent managers facilitate GTM processes, associated communications, reporting, and provide guidance and associated training for the support of supervisor and line-manager effectiveness (ibid).

The Employee as Stakeholder in GTM: talent experiences

The talent themselves, the employees, operate the day to day business, translating the activity of GTM to extend beyond a firm-level strategic imperative into a employee-level day to day operational activity (King, 2015). The employees engage in social exchange-based relationships between remaining talents occurring in the context of a generally high-investment talent programme. Meanwhile directly influencing short-term value through in-role performance further, talents also indirectly influence long-term value through their continuous development and deployment within the talent system (ibid).

3.4 Exploring Talent Identification and Talent Selection

3.4.1 Introducing and Defining Talent Identification

The definition of GTM includes talent identification (Scullion & Collings, 2011). As previously outlined in their undertaking of GTM, supervisors and line-managers are those HR practitioners identifying talents holding adequate competencies required by the MNC (King, 2015). The unique context of MNCs is their ability to resource talent across their global operations (McDonnell et al., 2011). HR practitioners' identification of talent is yet one of the most critical elements of any GTM system (McDonnell & Collings, 2010), as the 'availability

of talent per se is of little strategic value if it is not identified, nurtured, and used effectively' (p. 57).

One of the most under-researched aspects of GTM is yet the area of talent identification (McDonnell, et al., 2011). Again, the identification of adequate competencies as part of HR practitioners' undertaking of GTM during critical shifts as the ongoing digitalization of the automotive industry lacks substance within extant literature (Brooke & Matthews, 2012). The identification of talent has become ever more challenging due to the technology-drive paradigm shift as automotive MNCs are demanded to identify new types of competencies (ibid). In addition, to maximize the strategic advantage of the global workforce, the inclusion of talented individuals holding different nationalities reflecting the MNC's global footprint is crucial (McDonnell, et al., 2011). The challenge for MNCs is accordingly to effectively identify these talents irrespective their nationality (McDonnell et al., 2011), and for automotive MNCs in particular, to ensure they fill the observed gaps of software competencies to manage the ongoing digitalization (Brooke & Matthews, 2012; Gao et al., 2014).

As part of the global recruitment process undertaken by HR practitioners of MNCs, it is within the step of identifying adequate competencies the difficulty begins for most MNCs looking to develop their future talents (Adams, 2011; Natacha, Golik & Blanco 2014). Individuals identified as 'high-potential' talents are those people holding potential to strongly contribute to future business performance (King, 2015). Talented employees are therefore candidates expected to sustain the MNC competitive and to drive growth (ibid). Further, rather than the outline of a carefully planned and systematic evaluation process, finding a talent commonly becomes a 'know it when I see it adventure' (Adams, 2011, p. 7). Resulting from this haphazard approach are frequently the misidentification of talent, program failure, and wasted resources (ibid). Before the process of talent identification can take place, however, a starting point is to define what talent means to the specific MNC.

Defining Talent in the context of GTM

Before undertaking the identification process of talent, MNCs need to gain a clear understanding of what talent specifically means to the MNC (McDonnell & Collings, 2010). Generally, Michaels, Handfield-Jones and Axelrod define talent as 'the sum of a person's

abilities… his or her intrinsic gifts, skills, knowledge, experience, intelligence, judgement, attitude, character and drive' (McDonnell & Collings, 2010, p. 57). Boudreau & Ramstad (2007) have further defined talent as 'the resource that includes the potential and realised capacities of individuals and groups and how they are organized, including within the MNC and those who might join the corporation' (McDonnell & Collings, 2010, p. 57).

According to McDonnell et al. (2011), what unites these definitions is the recognition of both capability and potential, however, failing to consider the importance of their competencies and skills vis-á-vis the MNC and their contribution to it. Accordingly, Ulrich (2006) extends the debate by suggesting talent to be identified as a mix of competencies, commitment and contribution in relation to a specific context (i.e. the MNC). Collectively, competence and contribution regards inputs (McDonnell et al., 2011). According to McDonnell et al. (2011), competence refers to the knowledge, skills and values brought by the individuals into their roles, whereas commitment regards the application of these competencies in the workplace and the engagement of those individuals with their work role. Contribution further relates to individuals' outputs and their role in corporate performance from their work, and their finding of meaning and value in their work. Companies should accordingly consider a fit between individual competencies and the strategic requirements of the MNC, thus the employees' potential contribution to corporate performance. Rather than only focusing on inputs, GTM extend the organizational mindset to include potential outputs (ibid).

Global or Local Talent Management?

Due to the global context, talent management, notably talent identification, becomes a particularly complex issue for MNCs (McDonnell et al., 2011). Effectively managing the issue of global integration while maintaining local responsiveness is a major source of competitive advantage for MNCs (Bartlett & Ghoshal, 1990). It is therefore important for MNCs to ensure a culturally diverse HR management team to benefit from this dual logic (McDonnell et al., 2011). A key dilemma for such MNCs is accordingly whether to implement standardized systems for assessing talent or if locally based systems should apply. Nevertheless, much of the broader global talent literature lacks empirical evidence of how MNCs and their HR practitioners manage the inevitable complexities of talent identification operational within a GTM system (ibid).

3.4.2 Introducing and Defining Talent Selection

Linking the selection of talent as a subsequent and interrelated step to talent identification, talent selection equally includes the definition of GTM (Scullion & Collings, 2011). John Boudreau introduced the term 'decision science' in the context of GTM in the late 1990s (Boudreau & Ramstad, 2007). Boudreau & Ramstad (2007) define the goal of talent decision science as 'to increase the success of the MNC by improving decisions that depend on or impact talent resources' (p. 25). Fundamentally, HR practitioners must redefine themselves shifting their emphasis from the provision of services to the management of selection processes within the MNC, particularly in regards to talent (Boudreau & Ramstad, 2007). Due to rapid changes in customer preferences and digital services including the mobility solution offered by competitors, selecting talents holding adequate software competencies has become vital for automotive MNCs as part of the technology-driven paradigm shift (Brooke & Matthews, 2012).

The selection of talent is, often made without well-anchored frameworks, where informed preferences, instincts, and biases of key stakeholders frequently tend to bias such decisions (Vaiman et al., 2012). Further, GTM needs to develop a point of view regarding how talent selections are made (Boudreau & Ramstad, 2005). According to Boudreau and Ramstad (2005)*,* HR practitioners selecting talents must have a unique, talent-focused perspective to improve their selection, not just the implementation of a standardized selection process. Additionally, Boudreau and Ramstad (2005) argue, the HR practitioners selecting talents need to develop a 'decision science', enhancing the selection of talent resources.

Line-managers and supervisors are constantly suffering information overload (Vaiman et al., 2012). Considering this in the context of bounded rationality, poor selections are frequently the result of the cognitive limits experienced by individuals' in their ability to process and interpret large volumes of complex information. Coping with the limited ability to process incomplete and complex information, selections are commonly based on a subset of the available data why leading to biases. However, moving beyond the traditional role of HR practitioners requesting data, this demands top management and leaders to synthesize the requested data into usable metrics and analytics, and to explain the nuances behind them (ibid).

HR practitioners (i.e. line-managers and supervisors) faced with global talent management selections are nevertheless unlikely to have the time or capability to carefully consider all candidates (ibid). In such situations, Vaiman et al. (2012) claim selection makers to likely chose candidates closer to them, which according to previous experience, biases and predispositions, are candidates considered what Vaiman et al. (2012) term 'good enough' (p. 928). Attempts have nevertheless been made to move the scope of talent selection beyond such bounded and imprecise frameworks to decisions supported by scientific processes and data (Vaiman et al., 2012). Understanding the importance of 'pivotal talent segments' (e.g. key roles) and the maximization of investments in human capital are central aspects in optimizing the efficiency and contribution of selection within GTM (Collings & Mellahi, 2009).

3.5.2 Linking Talent Identification to Talent Selection

The global recruitment process tends to be a multitude of pre-set assumptions at play, which unsurprisingly will have an impact on talent identification (McDonnell & Collings, 2011) and talent selection (Perkins & Arvinen-Muondo, 2013). Therefore, it is a process where HR practitioners and potential talents try to find a fit between their own expectations and perceptions of the situation. There are two different fits that HR practitioners often, sometimes unconsciously, consider when identifying and selecting the right talent for the right place. First, the person-job fit, meaning the match between an individual's competencies and a specific position, also called demands-ability fit, thus related to higher performance and lower turnover (Werbel & Gilliland, 1999). Second, the person-corporate fit, meaning the congruence of an individual's personality, beliefs and values with the culture, norms and values of the MNC, here related to job satisfaction, commitment and turnover (Kristof, 1996). With reference to these factors impacting the embeddedness of talent identification and talent selection within GTM, the recruitment process have resulted in a challenging task for MNCs and their HR practitioners (Lewis & Hackman, 2007).

3.6 Concluding a Conceptual Research Model of GTM

Summarizing the theoretical framework presented above, the authors of the thesis provide a conceptual model, Figure 2, concluding the literature review applied by the thesis.

Accordingly, Figure 2 illustrates supervisors and line-managers' role in their talent identification and talent selection as part of GTM in the context of IHRM.
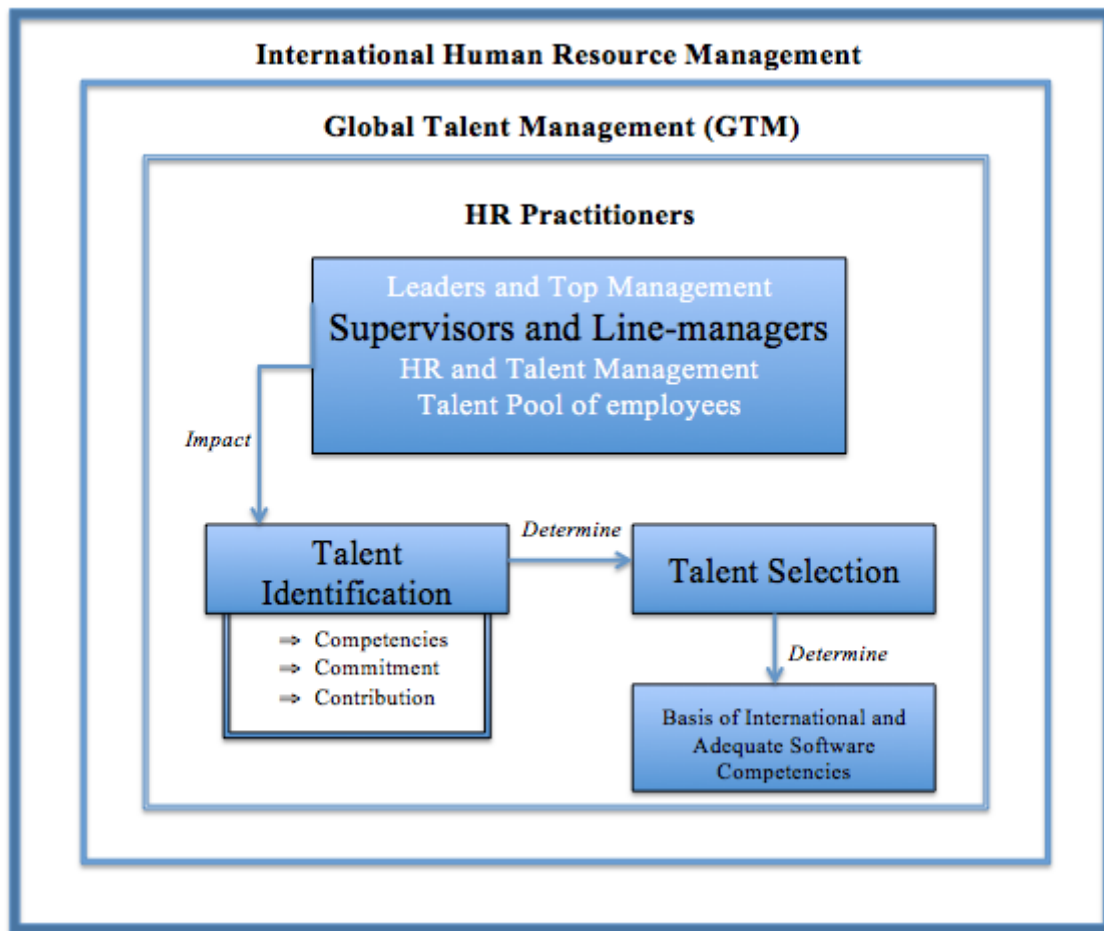

Figure 2. *A Conceptualized Research Model of Talent identification and Talent selection within GTM in the context of IHRM.*

Figure 2 illustrates IHRM as the first layer of theory applied to this thesis and how GTM accordingly follows as an extended and independent research field examined in its own right, yet in the context of IHRM. Based on the reasoning outlined above of Tarique and Schuler (2010), GTM contain a narrower perspective within the context of IHRM, targeting fewer HR practitioners and therefore HR practices. Further, Figure 2 shows the thesis' targeted perspective of the HR practitioners, notably supervisors and line-managers. Supervisors and line-managers are highlighted as part of King's (2015) multiple actor model illustrated in Figure 1. As explained above, supervisors and line-managers are those HR practitioners undertaking the identification and selection of talents (King, 2015). The arrows follow accordingly, illustrating how line-managers and supervisors directly impact on the

identification of talent in terms of competencies, commitment and contribution potentially held by software candidates. The arrows further illustrate how the identification of talent undertaken by line-managers and supervisors directly determine the selection of talents, and thereby which of the candidates that are recruited. Line-managers and supervisors' undertaking of GTM practices in terms of talent identification and talent selection therefore determine whether automotive MNCs hold an adequate competence basis required to manage the ongoing digitalization of the automotive industry.

4. Empirical Framework

The empirical chapter presents the material collected from a real life case of an automotive MNC. The chapter accordingly aims to provide a picture of the reality by the application of this case study. The empirical material presented here contains primary data collected from qualitative and semi-structured interviews.

4.1 The Automotive MNC of Study

Representing a multinational automotive corporation, there is a generic perception among all the respondents regarding a need for identifying and selecting adequate software competencies to sustain a competitive position within the automotive industry. The people of the automotive MNC are considered one of its most valuable assets, and are empowered to create the next generation cars. In November 2016, the MNC made a statement with their intention to become a software organization. In this regard, the car manufacturer seeks to leave the traditional hardware sphere while simultaneously entering the software industry. Accordingly, software is gaining an increasing importance in product development, hence securing the right competencies within this area is considered vital for each and every respondent.

There is a general agreement among the respondents that the automotive MNC understand how to attract national and international candidates having adequate software competencies. However, the automotive MNC lacks an understanding of what are hindering recruiting managers to identify and select international software talents. The MNC accordingly suffers a competence shortage, and foreign employees represent a minority. Some respondents nevertheless argue this to rather be the result of the MNC showing difficulties in welcoming the new software talents, notably those candidates having a foreign background. According to one respondent: 'New software talents coming into the corporation often hit a wall as soon as they walk inside the doors, because they do not always feel welcome' (Respondent A, 2017). The MNC should ensure recruiting managers have the ability and support required to identify and select talents, irrespective of the candidates' origin. In addition, all respondents confirm the MNC to be faced with an explosion of software opportunities resulting from the ongoing

digitalization. The following was expressed; 'None has the experience of how to manage them' (Respondent B, 2017).

Among the varying reasons expressed for the observed talent gap, the time required to identify and select software talents is a common factor mentioned as one of the main reasons among all respondents. This was stated by one recruiting manager; 'Recruiting managers are trying to balance how much time he or she should spend on their own people in comparison with the time needed to identify and select new talents' (Respondent C, 2017). The time required to identify and select software talents are frequently emphasized among the respondents as a contributory reason for a minority of international candidates; 'It can take about nine months to get the international candidate in place' (Respondent C, 2017). Selecting a Swedish candidate holding adequate software competencies is sometimes favourable by responding recruiting managers; 'Lacking practical language and accommodation considerations, such candidates can be operational three months after advertising a vacancy' (Respondent D, 2017). Several respondents confirm the selection of national talents to sometimes be at the expense of the actual software competencies required to manage the digitalization of the automotive industry.

A majority of respondents confirm the increased competition for adequate software competencies. This was voiced by one respondent; 'When recruiting new software talents, the MNC has the entire software labour market to compete with in terms of attracting competencies' (Respondent C, 2017). There is nevertheless a general perception among the respondents that software talents are located everywhere. Yet, respondents have observed a lack of software talents in Sweden, notably in Gothenburg; 'Gothenburg might not be their first choice of employment, but rather Silicon Valley or San Francisco where they can develop their full potential, and surround themselves with like-minded individuals and a creative and inspiring software environment' (Respondent E, 2017). Several respondents confirm the MNC's environment as confusing from a software engineer point of view; 'Newcomers sometimes wonder if they ended up in the factory when first being introduced to the R&D departments' (Respondent F, 2017).

There is a generic understanding among the respondents that there are certainly more software talents located in Gothenburg than the R&D departments manage to attract. Recruiting managers are therefore claimed to identify and select more software talents originating

outside both national and traditional industry borders to fill the MNC's current talent gap. For this reason, several respondents argue that an adequate competence basis is not being achieved based solely by the software talents located in Gothenburg. Still, most respondents claim there are still recruiting managers who perceive the MNC as a traditional car manufacturer rather than a software organization. One change manager voiced the following; 'Recruiting managers still consider the car manufacturer as a hardware corporation, which is due to an unfamiliarity with software' (Respondent B, 2017).

4.1.1 Introducing the Unit and Departments of Study

The automotive MNC of study provides an organizational structure of their Product & Quality (P&Q) unit presented in Figure 3. Subordinated to the P&Q unit, the organizational hierarchy follows sections, groups and teams by each of the four R&D departments, and the Purchasing and Quality (P&Q) departments. It is however, the four R&D departments of the P&Q unit that contain the organizational target of the study. Furthermore, a team commonly includes nine to twelve people, whereas a group can contain two to three teams. Every section within the P&Q unit includes four to five groups, and each department includes two to five sections. The recruiting managers are positioned within a section, group or team of the R&D departments. These managers undertake the talent identification and talent selection in the recruitment of adequate software competencies for the MNC. Hence recruiting managers excludes the HR Product and Quality (HR P&Q) department of R&D although still including the same unit. The digitalization of the car is nevertheless transversely incorporated within each department, section, group and team of the P&Q unit in particular, and now across each unit of the automotive MNC in general.
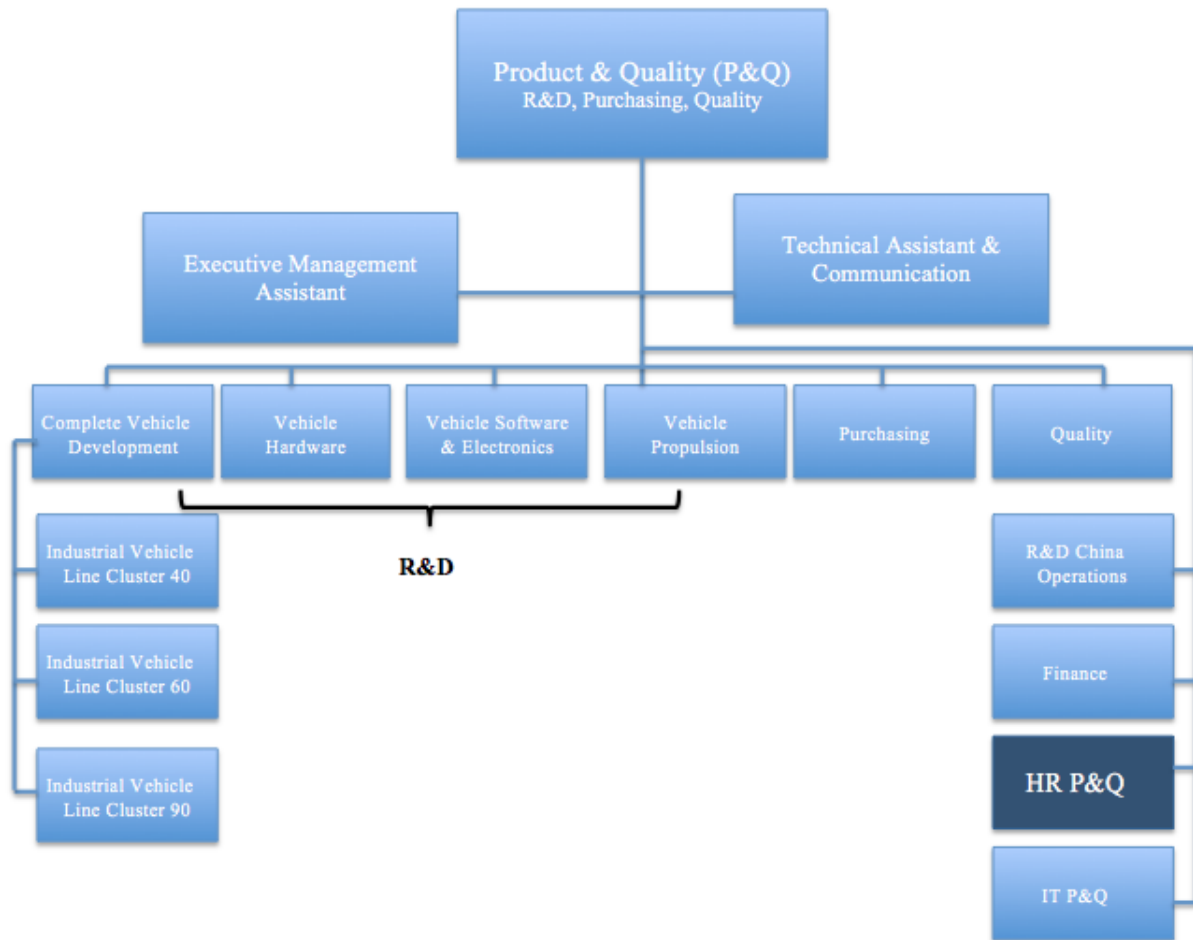
Figure 3. *Organizational Hierarchy of the Product & Quality Unit*

Although separated the HR P&Q department, recruiting managers of R&D receive support and guidance from this HR function. Accordingly, the HR P&Q department includes the study. As illustrated in Figure 3, the HR P&Q department subordinates the P&Q unit. The organizational structure of HR P&Q is presented in Figure 4. The department follows six groups of R&D, each lead by a HR manager. Subordinated to every group is an individual number of teams. The organizational chart of HR P&Q further includes six change support managers, transversally positioned across the P&Q unit. These change managers guide and support recruiting managers within the current transformation in becoming a software organization due to the ongoing digitalization of the automotive industry. Illustrated in Figure 4, HR P&Q also includes seven HR Business Partners (HRBPs), thus acting as a supporting partner for recruiting managers of every section, group and team of the P&Q unit.

Figure 4. *Organizational Hierarchy of the HR Product & Quality department*

4.1.2 The Agile Organization

There is a general agreement among all respondents that the transformation towards becoming an Agile organization is resulting out of the ongoing digitalization of the automotive industry. Software and hardware have traditionally been equally handled by the R&D departments including extensive lead times before the delivery of a finished car. A critical view to this was stated in the following; 'Just as with the development of cell phones, contemporary software products can be released although parts of the software are being modified and updated after the time of purchase' (Respondent F, 2017). Accordingly, applying an Agile organizational structure, the balancing act between the development of both

hardware and software can be harmonized more in accordance with the development of digital solutions within other software industries.

Lacking an understanding of the future car in its exact form, an Agile approach therefore implies continuous checks during short cycles in order to recall what have been accomplished and what changed direction to target thereof. 'Becoming an Agile organization naturally demands the corporation to become more flexible and adaptable to external digital advancement' (Respondent A, 2017). According to a majority of respondents, the MNC has, however, a long way left to go in becoming an Agile organization. Not least, has it become evident during the ongoing recruitment of software talents. Hence several respondents claim most of these candidates come from software companies already familiar with Agile environments.

4.2 GTM according to an Automotive MNC

The respondents explain how the automotive MNC started an initiative a few years ago called Strategic Workforce Planning (SWP), involving people management and talent management. Hence being the MNC's translation to Global Talent Management; 'The initiative is an on-going work where the corporation last fall began the process of obtaining information and not just talk about the challenges' (Respondent H, 2017). It seems however, to most respondents that the announcement in becoming a software corporation increased the speed of their work in SWP. Including the SWP, HR P&Q seeks to establish international teams where long-term planning seems to play large part within the transformation. Furthermore, aspects that appear important within the SWP are voiced in the following; 'the aim is to eliminate existing talent gaps and to prevent the creation of new ones' (Respondent H, 2017). According to several respondents, the SWP focuses on age structures and consultants versus permanent employees. The MNC must accordingly match current and future strategic competencies; 'There are some groups and competencies in the corporation that have been identified being obsolete due to the ongoing paradigm shift' (Respondent A, 2017).

There is no agreed perception among the respondents of how the automotive MNC is working with GTM; 'The corporation stopped labelling it talent management a couple of years ago. In its place, the corporation has chosen to replace talent management with People and Organization, which is a centre of expertise covering the whole process, from on-boarding to

end of employment' (Respondent F, 2017). Strategically, the MNC provides a global description of how recruiting managers should approach this entire chain. Yet, the concept, talent management, is still of presence although talent management is not the official term provided by the MNC.

4.2.1 The HR P&Q Function

As noted above, the HR P&Q department includes Change Support projects and HRBPs. In their transformative work, responding change managers explain how they coach, challenge, support and assist recruitment managers in their leadership. The current challenge is for recruiting managers to adopt a more flexible mindset more aligned with the future development of a software organization rather than the maintenance of a traditional and hierarchical automotive MNC. This was expressed by one change manager; 'This mindset must be held by recruiting managers both in the development of the existing software talent portfolio, but also within the identification and selection of new adequate software competencies' (Respondent F, 2017).

In parallel to the guidance provided by the change managers, the provided support from HRBPs is confirmed by the respondents to be less strategic and more operational, primarily holding an administrative character. One change manager explains; 'HRBPs act as an intermediary between recruiting managers and the external recruitment supplier' (Respondent B, 2017). In that manner, a majority of respondents argue for HRBPs and recruiting managers to develop a closer relationship also facilitating the recruitment process internal to the MNC. These respondents nevertheless consider the operational support provided by HRBPs to recruiting managers of R&D limited to practical concerns of the recruiting process of new software talents.

Respondents of HRBP argue the HR P&Q department to hold an understanding of the observed talent shortage, although lacking the knowledge of which competencies P&Q are currently sourcing to fill this gap. Nevertheless, responding HRBPs hold high hopes of the recruitment managers and their ability to identify and select the software competencies they are looking for. Yet, none among responding recruiting managers can declare the competencies the R&D departments need in five years. Although maintaining a direction, the

MNC is aware this will change alongside the its development towards becoming a software organization. Furthermore, HRBPs hold an equal understanding of the ability held by recruiting managers to identify not only software competencies, but also a candidate aligned with the corporate culture and values. Nevertheless, respondents except those of HRBPs argue there to be an observed need advancing HR P&Q even further to gain deeper knowledge of the competencies the automotive MNC seek to identify and select.

Respondents external to HRBP explain the need for a deeper technical insight already during the first elimination undertaken by the external recruitment supplier; 'Too many potential software talents are eliminated already from start' (Respondent E, 2017). Thus, the respondents agree to the fact that HRBPs and the HR P&Q department need to gain a greater understanding of the context in which the recruitment of software talents takes place. In this regard, the respondents argue, HRBPs need to gain an equal understanding of the strategic challenges and the strategic direction undertaken by R&D. Nonetheless, according to HRBPs themselves, they do not hold the responsibility in setting the strategic course of how the recruitment process may develop in parallel with the digitalization of the automotive industry.

The respondents equally consider HRBPs should guide recruiting managers more in the adaption of a broader perspective when identifying and selecting adequate software talents, thus looking at their competencies as a whole. Fundamentally, several respondents request HRBPs to challenge recruiting managers to foster the identification and selection of international software talents. It is a general understanding among the respondents that this will be vital for the MNC to sustain the intensified competition for software competencies due to the digitalization of the automotive industry. The suggested improved authority imposed by HRBPs implies, according to the respondents, a major mindset shift of competencies just as that requested by recruiting managers of R&D. Historically, the respect for leadership and delegated authority to top management have prevailed the internal praxis of the MNC. One respondent comments on the matter; 'Top management take the decisions just as the selection of which competencies to recruit' (Respondent A, 2017). Nevertheless, to improve the ability among recruiting managers in the identification and selection of adequate software competencies, all respondents demand the automotive MNC to enhance the role of HRBPs.

All respondents confirm that HRBPs today only coach and guide recruiting managers. In the end, HRBPs do not hold the authority to identify, nor to select, which of the software

candidates to recruit; 'If recruiting managers still have in their minds to only put out fires in order to fill an observed competency gap, they are not necessarily selecting the right person complementing the team' (Respondent A, 2017). Accordingly, this is where the competencies within HRBP need to be improved in order for them to more effectively and rationally guide and coach recruiting managers regarding software talents much earlier in the recruitment process. Nonetheless, HRBPs state that there is no internal education provided for them to increase their understanding of the ongoing digitalization, nor regarding the transformation towards a software organization. The following was voiced by one HRBP; 'The only way of learning is to be observant towards the recruiting managers we are supporting, and try to learn from them' (Respondent G, 2017).

4.2.2 Recruiting Managers

As noted earlier, recruiting managers of R&D undertake the identification and selection of software talents within the automotive MNC. According to responding recruiting managers, however, an advertisement and requested profile are firstly formulated prior to the undertaken talent identification and talent selection among software candidates. Hence responding recruiting managers confirm themselves to be involved only during the first and final stage of the recruitment process of software talents. During the remaining time, recruiting managers act independently and separately of the HR R&D department; 'They are not involved in any of their activities, nor do they receive any support thereof' (Respondent B, 2017). There is nevertheless an observed demand among several respondents to involve recruiting managers more within the recruitment process; 'The involvement must occur during real time and with shorter lead times' (Respondent E, 2017).

Among the recruiting managers of R&D, there is an unequal distribution in numbers of recruitments; 'Some do not recruit more than once a year and some recruit about 300' (Respondent A, 2017). A majority of respondents consider more support should be provided those recruiting managers with continuity, notably in their creation of requested profiles, but also in the understanding of which mindset R&D are looking for. One change manager claimed; 'Not only the behaviours, values and the mindset held by candidates, but how all the pieces will look together' (Respondent A, 2017). This support, the respondents argue, should be provided irrespective the annual number of recruitments. Although the interview process provides tons of paper and interview guidelines, a majority of respondents claim the selection of software talents rely on the recruiting managers themselves. Among others, two

respondents mentioned the following; 'It still comes down to the manager's judgement about which competency the team is lacking' (Respondent F, 2017). 'How stressed are they to have a resource, instead of looking at the person and say; how can this person long-term contribute to the corporation and not just fill the gap with a warm body and then that has been taken cared of?' (Respondent A, 2017).

According to all respondents except those of recruiting managers, a mindset shift needs to happen, and recruiting managers need to have support in how to identify software talent that can contribute long-term. Yet, all respondents agree that parts of the ongoing digitalization of the automotive industry are nevertheless hard to forecast. There is moreover an obvious collective understanding that something will change. Still, the MNC just as recruiting managers are used to planning based on a concrete goal; 'Recruiting managers often demand a clear picture of the results before any actions are taken' (Respondent H, 2017). That is, according to the respondents, how the automotive MNC has always developed and supplied cars. Lacking a linear plan therefore makes it hard for many recruiting managers to manage this complexity.

A majority of respondents perceive recruiting managers' ability to identify adequate software talents as varying. In particular, respondents emphasize the ability to identify and select international candidates holding adequate software competencies are lacking; 'Recruiting managers still identify and select software talents based on their own profile, their position held at the corporation, and with influences of an old hierarchical corporate culture' (Respondent F, 2017). Although the intellectual insight is present, also as part of the verbal expression, the changed mindset is not always present in action. Hence if some recruiting managers do not hold the ability in managing software development, the solution is not to recruit new software competencies, as they cannot receive any nourishment. Several respondents argue that significantly more recruiting managers must become involved within the development of software in terms of coding and programming. Also, recruiting managers are argued to develop an ability to adapt to what the development of software implies to every national and international talent within R&D.

According to responding recruiting managers, they and managing colleagues of the R&D departments are mainly Swedish, either educated at Chalmers University of Technology, Lund University or KTH Royal Institute of Technology. One recruiting manager claims;

'This, I believe, is one of the reasons implying difficulties in the identification of adequate software competencies among international candidates' (Respondent F, 2017). Most respondents believe international candidates can contribute to many other cultural dimensions. Yet, all responding recruiting managers request HRBPs to provide them more support regarding detailed cultural competencies. Fundamentally, in order to improve recruiting managers' identification and selection of international candidates holding adequate software competencies. A majority of respondents further believe that software talents are identified and selected irrespectively their nationality; 'There are enough paperwork and references in place which recruiting managers can ask for to find out whether the person is competent equivalent their origin' (Respondent B, 2017).

Although several respondents are convinced recruiting managers wish for more support from HRBPs concerning administrative tasks, they do not believe these managers seek to be challenged and questioned by HRBPs. One recruiting manager illustrates this in the following; 'Recruiting managers at R&D know their position and ability to assess what they need and apply their strategy thereof' (Respondent F, 2017). Nevertheless, if asking HRBPs themselves, recruiting managers wish for guiding answers in their recruitment of software competencies. Accordingly, to eliminate this non-directional way of communication, the changed mindset remains with recruiting managers and their willingness in becoming challenged by HRBPs; 'Recruiting managers rather extinguish present fires than planning their recruitment proactively and thus leverage cultural and personality aspects' (Respondent F, 2017).

4.3 The Recruitment Process

The respondents confirm the automotive MNC to distinguish their recruitment into an internal and external process depending on the character of the vacancy. The internal recruitment process is undertaken by the recruiting managers themselves, directly receiving all the applications. Conversely, the external recruitment process is undertaken from an external recruitment supplier, hired by the MNC. Regardless the nature of the recruitment, the recruiting manager needs to submit a request to hire (RTH); 'Thereafter, it is the P&Q unit, or sometimes the HR P&Q department that approves the RTH' (Respondent C, 2017). If recruiting managers receive a permission to recruit, a service request is formulated specifying the adequate competencies R&D is requesting. At this stage, HRBPs could provide support in

formulating the observed need, however, the recruiting manager only contact HRBPs when they consider a need for support. According to HRBPs, it is a very small part of what they are doing that is linked to recruitment. This process is done in a parallel dialogue with the external recruiting supplier, in order to attract the right competencies. Stated by one recruiting manager; 'It is important to clearly articulate in the advertisement who and which competencies that are crucial for the position' (Respondent D, 2017).

The external recruitment supplier publishes the advertisement during an agreed limited period of time; 'Recruiting managers together with the external recruiting supplier have a continuous dialogue regarding practical concerns of the advertisement, including the time frame' (Respondent C, 2017). The first elimination of software talents is undertaken by the external recruitment supplier subsequently forwarded to responsible recruiting manager; 'The recruiting manager together with the external recruiting supplier agrees upon which of these profiles that are of interest' (Respondent I, 2017). The chosen candidates will carry out a personality test and a logic test provided by the external recruiting supplier. There are a few recruiting managers who apply practical tests during the recruitment process, thus declared by one recruiting manager with the following; 'It is not an established practice' (Respondent C, 2017).

There is a general perception among the respondents that most recruitment processes begin first after a competency gap has been observed or a position needs to be filled after a retirement. According to all respondents that is due to a combination of budget restrictions and a slow recruitment process; 'Today, the process takes at least two months' (Respondent I, 2017). Moreover, when recruiting an international candidate the automotive MNC offers a relocation package; 'The package contains a pre-visit to Gothenburg with your partner, a container of a certain size for moving, and help with practical migration concerns' (Respondent I, 2017). Nonetheless, the package is very expensive, thereby a huge burden for the budget why recruiting managers needs to ask for such an approval.

All respondents agree that the external recruitment supplier suffers difficulties identifying and selecting international software talents. Additionally, there is a general dissatisfaction observed among recruiting managers regarding the supplied sample of software candidates provided by the external recruitment partner. Fundamentally, concerning the low supply of international software candidates. Respondents consider the supplier to lack the knowledge in

identifying and selecting adequate competencies extending beyond the ordinary. Several respondents confirm international and competent candidates may be eliminated already in the first stage of the recruitment process. One change manager argues; 'The sample of candidates provided by the external recruitment supplier is not always sufficient in terms of international candidates' (Respondent B, 2017). Unfamiliarity with advanced programming and coding language expressed during interviews or within CVs are therefore argued by the respondents as reasons providing a poor sample of international software candidates.

A majority of respondents have expressed a need for a better recruitment process; 'The formal part of the recruitment process is quite stiff, and advertisements have been published by the same media as we always have' (Respondent I, 2017). A change manager further explains; 'In response to the observed gaps within the existing recruitment process, the corporation has decided to insource parts of the process, which was previously outsourced' (Respondent A, 2017).

4.3.1 Talent Identification

Responding recruiting managers explain how the R&D departments of the automotive MNC have historically recruited what is termed 'systems developer', holding competencies to identify how practical digital solutions also work on paper. Such competencies are highly theoretical and have traditionally worked well within the digital development of the MNC. Former systems were not that complex, and cars' instrument panels contained solely lines of text; 'Today, the car includes the connected society and integrates with several other units, such as cell phones and other cars supplied by the corporation' (Respondent I, 2017). In contrast to the identification of former competencies, the identification of these new software competencies rather extend the R&D departments with new positions. Resulting out of the ongoing digitalization of the automotive industry, responding recruiting managers explain they are accordingly sourcing and recruiting software engineers holding software competencies of User Interface. These talents, several respondents argue, will complement their portfolio of competencies required for the MNC to manage the ongoing paradigm shift.

The software competencies the automotive MNC currently seek to identify hold an orientation within programming and coding, and are necessarily not found within the

traditional automotive industry. There is a general understanding among recruiting managers that the MNC is therefore sourcing such talent within other software industries such as the gaming industry, the mobile network industry, and the telecom industry. One recruiting manager emphasize; 'No software industry necessarily excludes the recruitment process of new software talents' (Respondent D, 2017). A good example, the respondents argue, is the MNC's latest recruitment of software talents formerly employed at a Swedish telecom company; 'Sourcing this new talent within other industries than the automotive, the corporation can gain a broader perspective of software' (Respondent B, 2017). Nevertheless, it is important to every recruitment manager that these talents hold some sort of relation to, or professional experience within, any type of software. Another illustration of the MNC's recruitment external the automotive industry is the acquisition of an office in Copenhagen formerly operational by a Finnish communication and technology corporation.

According to all respondents, there is not one type of talent. This becomes particularly important when looking at the recruitment process globally, and how the software candidates look like today compared to ten years ago. One change manager stress the divergence with the following expression; 'Candidates represent the digitalized generation, thus representing what has been termed 'digital native' (Respondent H, 2017). Newly graduated software engineers hold a whole different relation to the digital society and mobility, but also to teamwork. Whereas older generations were out socializing with people and friends, digital natives socialize without meeting one another. The interaction between these individuals means something different today and must be identified by recruiting managers of R&D. Further, all respondents claim talent is not solely built through education; 'Talent is prerequisites held by the individual, incorporated within their personality, and thus more profound' (Respondent E, 2017). For the R&D departments, talent is an unprogrammed ability to become whatever each R&D department demands the candidate to become. Accordingly, bringing in a basis of adequate software competencies, values and behaviours.

All respondents agree that software candidates with a Master's degree hold basic competencies of physical laws. Nonetheless, most of the competencies gained from the university are commonly already obsolete at the time of identification; 'The actual competencies gained at the university are not the most important, but rather the competencies to learn new software and to develop in parallel with the corporation and remaining colleagues' (Respondent F, 2017). Several respondents moreover add to the identification of

adequate competencies the ability not only to connect to a device, but also to socially connect to remaining team members. While many of the new generation software talents have been identified to be competent to interact through various devices, such talents must as well hold interaction competencies undertaken face to face. Here, several respondents argue recruiting managers to identify such software talents holding competencies able to work in parallel and to collaborate with aging generations thus connecting these ways of collaborating.

Competence

The identification of talent in the matter of competence, commitment and contribution are confirmed to represent the format applied by the R&D departments. The MNC's minimum-requirements to be called for an interview guide recruiting managers with the identification of software talent. In this regard, through a formulated interview guide targeting these three aspects; competence, commitment and contribution. Moreover, responding recruiting managers argue the ability to be adaptable as a competence itself; 'Talent is the competence to develop and adapt once competencies still interesting for the corporation in the future' (Respondent F, 2017). Several respondents further argue competencies to be dynamic; 'The competencies held by a talent are continuously evolving as confronting new challenges and tasks, just as in the conversation with another talent. Their competencies are then evolving in parallel' (Respondent E, 2017). In addition, several respondents claim there are future competencies of which format depends on the interests and opportunities held by the talent. This was explained by one recruiting manager; 'The corporation provides strategic opportunities, thus forming the development of the competencies held by each candidate' (Respondent E, 2017).

There is a general agreement among responding recruiting managers that identifying adequate software competencies are firstly done through the analysis of the candidates' CVs and cover letters. All responding recruiting managers always include a senior team member to complement the identification process. A senior candidate, they argue, can complement recruiting managers with questions held from the team perspective in order to provide a worthwhile discussion and to better reveal adequate software competencies. Also, software candidates are sometimes requested to solve an assignment; 'When references are absent or the interview session has not been enough to identify the candidate's competencies, an

assignment is sometimes handed out' (Respondent C, 2017). Hence such competencies, all responding recruiting managers confirm, cannot be deciphered from a CV or cover letter.

There is an equal agreement among responding recruiting managers that adequate competencies and a relevant education are considered a prerequisite when identifying a software talent. Explained by one recruiting manager; 'Lacking an undergraduate degree or extensive software experience, adequate competencies cannot be identified and such candidates are not selected' (Respondent D, 2017). In addition, several respondents argue that competencies are further identified through personality, but also through the identification of collaboration competencies in a collective social setting. Hence the overall impression is crucial to each respondent. Responding recruiting managers further argue the collaboration competence to be as important, if not more, as the software competencies, where the mindset is sometimes more crucial than the requested software competencies. This means, they further explain, the ability to contribute and devote oneself to the corporate culture and corporate core values. Accordingly, there is a generic agreement that the candidates must show they have the capability of making a difference, and to venture old traditions.

Some respondents further emphasize the importance of identifying collaboration competencies in parallel to software competencies. Becoming an Agile organization, they argue, implies a need to identify candidates both holding technical software skills and collaboration skills. In addition to the technical software competencies, several respondents also claim recruiting managers to improve their ability in identifying competencies of communication, integration and co-creation. This was stressed by one change manager; 'Important is to identify software integrators rather than merely software engineers' (Respondent A, 2017). Identifying software talents holding an adaptability to open channels between software and hardware in order for the MNC to supply cars with an integrated system will, according to a majority of respondents, be vital to manage the ongoing digitalization. Contrastingly, some recruiting managers claim their teams to have room for many different people, although the software and technical oriented competencies sometimes even outweigh the social. One recruiting manager argues; 'Crucial is to find a balance of people within the team, where some are only coding and therefore sometimes demands less social competencies' (Respondent I, 2017).

Commitment

The identification of commitment is considered highly important by recruiting managers of the R&D departments, although experiencing it frequently difficult to identify during the point of interview. There is an equal perception among recruiting managers to the difficulties in identifying whether the candidate will show commitment after one, two or five years ahead. Expressed by one recruiting manager; 'It is first after a decent period of time I as a recruiting manager can really identify whether a committed software candidate was identified and selected' (Respondent D, 2017). The identification of commitment as part of a candidate's software talent rather becomes the recognition of a feeling during the interview to most recruiting managers; 'This can be revealed by asking question on how the candidate would handle and behave in various settings or situations' (Respondent C, 2017).

According to responding recruiting managers, it is not always decisive to ask specific questions, but rather to receive a presentation from the candidate, explaining how former education or professional experience have led to their commitment towards the MNC; 'A first step in the identification of commitment is to identify the candidate's interests in safety and the corporation in order to assess how genuinely the candidate has applied for a position at R&D'. Further; 'Although everything can look good on paper, it is during the interview session I as a recruiting manager can gain a first feeling of commitment' (Respondent C, 2017). Remaining recruiting managers agree to the identification of commitment as a feeling received during the interview session; 'Such talent will not be revealed from a CV, nor can it be read from a personal letter' (Respondent I, 2017). Respondents supporting recruiting managers moreover demand them to identify software candidates' commitment to the MNC and an understanding of the car industry; 'Although the automotive corporation strives towards becoming a software corporation and an Agile organization as part of the digitalized world, still the heart and soul of the corporation lies in cars, and within the fact to build safe products and services around people's lives' (Respondent A, 2017).

Some respondents nevertheless argue not every software candidate holds a commitment to cars. Many candidates do not mind whether there is a car or a toaster supplied from the production line. Nonetheless, that is claimed not to be necessary if candidates declare their commitment to the MNC and its core values; 'As long as software candidates show they are committed to the generation of a creative working process and that their talent deliver, no commitment to cars must be identified' (Respondent F, 2017). Yet, all respondents demand

recruiting managers to identify software candidates' commitment to the delivery of a product holding high quality and coined with the automotive MNC's core values; 'If the objectives of the corporation are aligned with that of the candidate, then commitment is identified as part of their software talent' (Respondent E, 2017). Further; 'The identification of commitment does not regard whether the candidates are concerned with the automotive industry on an everyday basis, but that they are concerned with the brand and willing to make an impact' (Respondent F, 2017).

Contribution

Due to the ongoing digitalization of the automotive industry, the automotive MNC has officially announced the goal of supplying one million electrified cars by 2025. This was stressed by one recruiting manager; 'The current challenge undertaken by recruiting managers is to identify who among the software candidates that hold the talent to contribute to this goal today, but also tomorrow' (Respondent F, 2017). This goal speaks environment, new technologies and an advancement of innovation. Most respondents are thereby requiring recruiting managers to identify those software talents with the ability to contribute to each of these aspects. Aligned with this reasoning, contribution is according to HRBPs identified by the performance and provision generated by that candidate beneficial for the automotive MNC. Additionally, contribution is the identification of a willingness for individual development alongside that of the R&D departments.

Identifying contribution among software candidates is, according to responding recruiting managers, nevertheless the recognition of a feeling when undertaking the interview. If a software candidate holds a specific competence, they argue, then that person most likely will contribute to the team in particular, and for the development of R&D in general. However, if a candidate does not hold the ability to transfer his or her competencies, recruiting managers agree that such candidates are most likely unable to contribute to the software development of the R&D departments. Further, according to every responding recruiting manager, the identification of contribution implies that the individual complement to what the team already contributes. As already noted, important is to find a balance between the members within the team so that each talent can contribute in their own way; 'You see, if I had 10 people in my team that were really talented within the same area of software competencies, how would each member's contribution be evident?' (Respondent I, 2017)

A prerequisite for recruiting managers identifying contribution is nonetheless perceived by all respondents as the software candidates' contribution in fulfilling the exact requirements specified in their job descriptions. Extending beyond the technical contribution, however, several respondents argue for recruiting managers to identify the cultural contribution each software talent may provide. This being the respect and behaviours held towards existing members within every software team, but also their contribution to the development of co-working team members.

The Identification of International Software Talents

Several recruiting managers claim to identify the required competencies, irrespective candidates' nationality. Competence is, according to them, the only factor deciding whether to continue the process valuing the candidate as a potential future talent. Further, diversity is according to responding recruiting managers important in several aspects, yet nationality is not an active choice but rather the result of the competencies identified by the candidate. Nevertheless, if the candidate holds adequate software competencies meanwhile contributing to diversity, this is considered positive to most recruiting manager.

Contrasting views are however expressed among other responding recruiting managers. One recruiting managers asserts the following; 'Interviewing a candidate holding a software engineer degree from Chalmers University of Technology, as a recruiting manager one can easily relate to that profile and hold a basic understanding by the academic background of, and the competencies held by, that candidate' (Respondent D, 2017). Conversely, a candidate holding a foreign software degree is according to responding recruiting managers harder to relate to. The following statement is expressed by the same recruiting manager; 'As a recruiting manager, I simply lack a feeling for an international background (Respondent D, 2017). Identifying international software talents requires recruiting managers to undertake more research to gain an understanding for such candidates, and his or her academic and professional background. According to the recruiting managers it moreover becomes their responsibility to inform international candidates about the automotive MNC, its core values and their corporate culture. One recruiting manager accordingly emphasizes the following; 'A candidate from Chalmers, on the other hand, commonly holds a basic understanding for the

corporation and the brand. This in contrast to an international candidate who probably has heard of a recent press release when applying for a position at R&D' (Respondent D, 2017).

Barriers to identify talent among international software candidates is argued by every respondent to further be language-related; 'It is not a question about whether international candidates hold equal education to the Swedish candidates, but whether such candidates reach an interview stage of the recruitment process at all' (Respondent B, 2017). According to some recruiting managers, their way of handling these difficulties is to always include one of their team members during the interview session, assisting the identification of adequate software competencies among international candidates. Holding a highly technical or software oriented background are not claimed as a prerequisite for recruiting managers identifying adequate software competencies. Yet, absent such background, software engineers or existing team members are argued by several respondents to assist the identification of adequate software talents. Fundamentally, they argue, when the identification of such competencies is made among international software candidates.

4.3.2 Talent Selection

All respondents agree to the fact that the selection process of which software candidate to recruit is complex, however, crucial to maintain an adequate competence basis not only within the R&D departments but also for remaining departments, units and divisions of the automotive MNC. Every respondent further confirm the MNC's core values to play large part in the selection process of international software candidates. There is accordingly an evaluation during the interview session in regards to the candidates' expressed values. According to a majority of respondents, if those values can be easily translated to those represented by the automotive MNC, and if adequate software competencies are identified, such talents are most likely selected.

All respondents confirm the talent selection process among international candidates to commonly include practical determining factors, such as accommodation, working visa, or established social networks in Sweden. Responding recruiting managers moreover argue that barriers may arise in the selection process of candidates not maintaining English fluency. The international candidates, they argue, must originally hold willpower to learn any of those languages, at least English. Yet, some recruiting managers claim that knowing Swedish

facilitates the selection process why including a determining factor according to those managers. According to all respondents excluding those of recruiting managers, still, the decisive factor why software candidates are not selected, irrespective their nationality, is frequently an identified lack of social competencies thus satisfying the recruiting manager.

Some respondents argue that software talents identified and selected, hold different social competencies today than historically. Telling from their own experience, such social competencies might not always be revealed during an interview session although being present within unexplored and new ways. With that said, some respondents demand recruiting managers to improve their knowledge in sociology and how different social competencies and behaviours are manifested among contemporary software talents; 'Just because they are not obvious during the identification process, they necessarily do not exist just because they are not visible enough for the recruiting manager' (Respondent H, 2017).

Recruiting managers of R&D nevertheless agree to the fact that there are no standardized formats of decisive factors to determine whether to select a candidate after the identification of his or her talent. Yet, recruiting managers stress this may vary from one specific selection process to another. Further, all responding recruiting managers agree that the identification of social competencies are commonly one of the decisive factors in the process of selecting software candidates. Respondents of HRBPs moreover share the understanding of the formal competencies to be of less importance than the social. Thus arguing for how the candidate proves ability to collaborate with the team he or she is recruited for; 'If the team is synchronized, respondents of HRBPs claim every individual to provide a better contribution' (Respondent J, 2017).

5. Analysis

The chapter of analysis aims to outline the results obtained in the previous empirical chapter, however, placed in relation to the theoretical framework applied to the thesis. The chapter of analysis seeks to reveal how recruiting managers of R&D identify adequate software competencies as part of their GTM, and how international talents are selected thereof.

5.1 The Digitalization of the Automotive Industry

Aligned with the theoretical framework provided by Brooke & Matthews (2012), there is a general understanding among all respondents that the ongoing paradigm shift will require a transformation by the automotive MNC of study. There is, however, an unequal agreement of how to manage the shift in order for the MNC to maintain an adequate competence basis. Many contrasting opinions are expressed among the respondents, but also varying perceptions of how the MNC is currently working to meet the shift have been revealed. Based on the empirical findings further, it is evident that the R&D departments have difficulties in admitting being a multinational corporation, illustrated by the language-related requirement of speaking Swedish and a lacking understanding for academic and professional international backgrounds.

Brooke and Matthews (2012) define the digitalization of the automotive industry as challenging for automotive MNCs, which was evident also in practice. Although the awareness of the challenges the digitalization is bringing to the MNC is present, the ability to manage them effectively is poor. Considering the announcement of becoming a software corporation further, the understanding of what the digitalization implies is yet suffering. In order for the MNC to seek competitive advantages from the digitalization (Vaiman et al., 2012), recruiting managers need to maximize talent among individuals to manage global talent and the paradigm shift effectively. In this manner, recruiting managers' importance of managing the identification and selection of talents have proved vital.

5.1.1 The Agile Organization

The transformation towards becoming an Agile organization, as a result of the on-going digitalization of the automotive industry, is equally mentioned by each and every respondent. Respondents confirm the generic organizational response undertaken by several multinational automotive MNCs due to external realities such as the ongoing digitalization, being the transformation towards an Agile organization (Gutmann, 2015; Kostron, Brauchle & Hanisch, 2016). Changed consumer behaviours are leading to demands for connected, smart and autonomous vehicles (Gutmann, 2015). Resulting out of the increased importance of software within the next generation vehicles, multinational automotive MNCs must thereby simplify vehicle development processes and shorten development cycles by reorganize their corporations in more Agile and efficient ways (Kostron et al., 2016). Becoming Agile accordingly includes the process of identifying and selecting international software talents.

According to Denning (2016), 'Agile defines an umbrella term for a set of management practices… which enable offering requirements and solutions to evolve through collaboration between self-organizing, cross-functional teams. It promotes adaptive planning, evolutionary development, early delivery and continuous improvement, and it institutionalizes rapid and flexible response to customer input' (p. 11). There is nevertheless an unequal understanding what Agile implies to every respondent individually, but also to each of the studied R&D departments collectively. Additionally, although several respondents claim the MNC to has a long way left in its transformational work, the declaration by a mutual plan of how to proceed in becoming Agile is conspicuous by its absence.

Revealed from successful implementations, Agile has not been treated as something that could be formalized in an operating manual (Denning, 2016). Contrastingly, Agile was seen as an alternative way of perceiving and acting in the world. Having an Agile mindset has therefore proved more important than any specific Agile management methodology, platform, system, process or organizational structure. Hence successful firms were 'being Agile', and not merely 'doing Agile', as part of their management (ibid). Although informal discourses are emerging within the R&D departments by the demand of 'acting or doing Agile', the response among recruiting managers in 'being Agile' is lacking. Still, a traditional and less flexible mindset is present when identifying and selecting international software talents. Nevertheless, an Agile mindset implies for recruiting managers to rather act and perceive

themselves as enablers, not as controllers, so as to draw on the full potential of international software candidates (Denning, 2016).

As part of this organizational challenge, software talents are recruited into a non-Agile work environment where bits of Agile pieces are happening, however, still hindered by a traditional and hierarchical corporate culture. Consequently, this will demand a lot from recruiting managers. Not only will this require a mindset shift to happen among recruiting managers in the identification and selection of software candidates, but also how to integrate these new talents into the existing organization. Shortening development cycles (Kostron et al. 2016), would imply for recruiting managers a reorganization in the identification and selection of software talents to become more Agile and efficient. Applying an Agile organization institutionalizes a more rapid and flexible response to external changes (Denning, 2016), such as the on-going digitalization of the automotive industry.

Becoming an Agile organization, however, reaches beyond recruiting managers and includes every party including the P&Q unit and involved with the recruitment of international software talents. As noted earlier, an Agile organization works from a set of management practices enabling solutions to evolve through collaboration between self-organized and cross-functional teams (Denning, 2016). It promotes adaptive planning, early delivery, evolutionary development and continuous improvement (ibid). Recruiting managers should therefore extend their collaboration between the R&D departments, but also between them and their supporting instances during shorter cycles. Again, in order for the identification and selection of software talents to become more flexible and change more rapidly alongside external digital improvements and software innovations. To achieve an Agile mindset, recruiting managers must become more flexible in the identification and selection of adequate software competencies to more rapidly respond to external software improvements and software innovations.

Deriving from the framework provided by Denning (2016), an Agile organization demands the automotive MNC to focus on the totality. Although working with only a part of that totality, recruiting managers must therefore hold the ability to pendulate between these parts more than what has been required before. Becoming a less hierarchical organization would foster the distribution of identifying and selecting software talents across the R&D

departments and their supporting instances. Thereby, relying less on one recruiting manager's judgement. Consequently, the main challenges for recruiting manager is to lessen their responsibility and to manage complexity rather than clarity, refocusing their leadership towards becoming more innovation-oriented.

5.2 GTM according to an Automotive MNC

Resulting from the empirical findings, it was clear that the general understanding of GTM is lacking. As the understanding has proved limited among respondents, the poor understanding may be generalizable to the R&D departments of the P&Q unit. The automotive MNC seeks to eliminate the creation of talent gaps, however, several respondents claim the R&D departments to only recruit when an extant gap is observed. Still, the MNC does seemingly not struggle in the attraction of international software talent. Yet, the identification and selection of adequate competencies among these candidates as part of their undertaking of GTM are lacking.

The empirical findings moreover reveal that the MNC does not apply talent management on a global basis, as talent management, rather than global talent management, is emphasized by all respondents. As noted earlier, Tarique and Schuler (2010) argue for the undertaking of GTM as a source for competitive advantages among MNCs. Still, recruiting managers' undertaking of GTM is not revealed as crucial to maintain an adequate competence basis and to manage the ongoing digitalization. Hence there are as many explanations of how the R&D departments are managing GTM as there are respondents. There is consequently no revealed general understanding how to manage the ongoing digitalization by their undertaking of GTM.

The automotive MNC of study is lacking an explanation of how GTM differs from IHRM, something that has been noted as common according to a number of authors (Tarique & Schuler, 2010; Scullion & Collings, 2011). Besides, the R&D departments confirm that the concept of GTM is indistinct and can, therefore, not provide a common opinion of how they define it. Hence confirming the theoretical confusion over the concept's content. Further, aligned with the theoretical framework provided by Tarique and Schuler (2010), the R&D departments are lacking an understanding of what practices that include GTM. Accordingly, the criteria against which activities should be undertaken by the recruiting managers of GTM

should be evaluated more specifically. Absent a specification of which activities includes the undertaking of GTM (Vaiman et al., 2012), is moreover confirmed by lacking well-anchored frameworks.

5.2.1 The HR P&Q Function

The HR P&Q department of the automotive MNC is interpreted as holding a complex organizational structure. The organizational structure of P&Q is further divided into several levels, reflecting the hierarchical corporate culture revealed by several respondents as a reason for not meeting what Denning (2016) terms an Agile organization. Further, the P&Q unit do distinguish between the HR function and the recruitment process, thereby excluding the identification and selection of international software talents as not considered part of their undertaken GTM or any other HR practice. According to King (2015), however, there should be a stronger link between HRBPs and recruiting managers where these HR practitioners can become a more collective interrelated part of the HR function.

Revealed from the empirical findings further, HRBPs are currently lacking an understanding of what and how the digitalization is affecting them and their work on a daily basis. Also, HRBPs seem to support the recruiting managers in a more operational and primarily administrative way, rather than through a strategical character. As mentioned earlier, the HR function is facilitating GTM processes, associated communications and reporting (King, 2015). Besides, the HR function provides guidance and associated training for the support of supervisor and line-manager effectiveness (ibid). Nonetheless, this has not been revealed from the empirical findings. The HR function is accordingly not acting as a key role by the delivery of strategy through people presented by King (2015). Therefore, not revealed as a crucial partner enabling interfaces between corporate actors. To ensure the knowledge held by recruiting managers, the knowledge held by supporting instances must not be neglected (Gao et al., 2014; Jarzabkowski et al., 2007). In order for HRBPs to provide sufficient and more strategic support for recruiting managers, they need a more thoroughly understanding of what they support. HRBPs should, therefore, seek greater insights into the software competencies required to recruit by the R&D departments, in order for them to provide the best possible support for recruiting managers.

There are several respondents claiming the need for a mindset shift not only for recruiting managers, but also among the instances supporting these HR practitioners. There is a mindset shift of delegated authority from recruiting managers to HRBPs that need to happen. In this regard, improving HRBPs' liability to challenge recruiting managers, and hence foster the recruitment of international software talents. Accordingly, the HR P&Q function needs to improve their support towards recruiting managers and gain a deeper understanding of what software competencies the R&D departments are currently recruiting.

5.2.2 Recruiting Managers

The recruiting managers of the R&D departments represent those HR practitioners referred to by King (2015) as line-managers and supervisors, thus undertaking the identification and selection of software candidates for the R&D departments of study. In contrast to the multiple actors model provided by King (2015), and as noted earlier, recruiting managers excludes the HR P&Q function and consider themselves exclusively separated HR practices. Again, the identification and selection of software talents are according to recruiting managers not parts of their undertaken GTM, nor considered part of the recruitment process undertaken by these HR practitioners. The interrelatedness of the four key HR practitioners presented by King (2015), have therefore not been revealed as part of the GTM strategy undertaken by the R&D departments of study.

As noted above, defining HR practitioners include their situated and person-specific knowledge and skills (Björkman et al., 2014). A high level of technical knowledge held by recruiting managers of the R&D departments is nevertheless obvious. Yet, the adaptability and an understanding for lessening hardware and welcoming software are seemingly lacking. The situated and person-specific knowledge and skills held by recruiting managers must accordingly change towards becoming more software oriented. Importantly, there is a request of an improved understanding and acceptance for a new type of software talents in general, and an Agile mindset in particular. Revealed from the empirical findings further, international talents behave and express themselves differently than traditional Swedish candidates educated at a domestic university. Hence the situated and person-specific knowledge and skills held by these HR practitioners in the identification of software competencies gained from a foreign university are confirmed inadequate. Also, an understanding of expressing social competencies differently is lacking.

HR practitioners must seek an equal understanding of the current and future software competencies situated for managing the ongoing digitalization of the automotive industry. Although varying competencies are expressed, recruiting managers claim to equally agree to what software talents their departments recruit today. In addition, although the R&D departments declare to long-term forecast what future adequate competencies will be required, no mutual understanding of what software talents the teams of R&D require tomorrow are revealed.

Except the demand for a situated and person-specific knowledge shift from hardware towards software, the request for a mindset shift undertaken by recruiting managers is further obvious. Fundamentally, this concerns a cultural trip moving recruiting managers' focus from control to trust, and hence becoming more Agile. As noted earlier, effective GTM requires the involvement of multiple actors facilitating the movement beyond process to practice in a coherent and business-embedded activity (King, 2015). Again, decisions must accordingly be reallocated from a higher to a lower level, gradually removing their mindset in order for supporting instances and managing colleagues to take larger part in the identification and selection of adequate software competencies.

As part of the cultural trip further, recruiting managers have seemingly not accepted the corporation as a multinational car manufacturer. Managing the ongoing digitalization of the automotive industry, however, there is a general agreement among all respondents the R&D's competence basis will not be maintained with solely national software talents. As noted earlier, the challenge for MNCs is accordingly to effectively identify these talents irrespective their nationality (McDonnell et al., 2011). Notably, for automotive MNCs, to ensure they fill the observed gaps of software competencies to manage the ongoing digitalization (Brook & Matthews, 2012; Gao et al., 2014). Still, hindering the recruitment of international software talents is an obsolete mindset requesting such candidates to speak Swedish in particular, just as the demand for a genuine interest in cars among software candidates in general. Nevertheless, to maximize the strategic advantage of a global workforce, including talents holding different nationalities is crucial to reflect the MNC's global footprint (McDonnell, et al., 2011).

Seeking to increase the selection of international software candidates requires recruiting managers to become more accepting towards diversity. However, the allowance for diversity as part of their teams is seemingly not the reason hindering the identification and selection of international software candidates. Potential hinders are rather the acceptance of the complexities diversity implies to the management of international software competencies. Consequently, the identification and selection of international software competencies demand more from recruiting managers than the recruitment of Swedish talents. Moreover, managing the identification and selection of software talents, the R&D departments' basis of software competencies depends large part of what talents are recruited by the recruiting managers. Hence confirming King's (2015) reasoning of these HR practitioners' meaningful degree of influence on GTM outcomes.

5.3 The Recruitment Process

The recruitment process is indeed a challenging task for MNCs and its recruiting managers (Lewis & Hackman, 2007), and the recruitment process undertaken by the R&D departments has proved several weaknesses. The difficulties in the recruitment process begin with the identification of adequate competencies (Adams, 2011; Natacha, Golik & Blanco 2014), also revealed by all respondents. Currently, the R&D departments utilise an external recruitment supplier, which is claimed to have problems in the first elimination stage of adequate software competencies. One way of dealing with this is for the R&D departments to insource the recruitment process of software competencies. Nevertheless, a slow hierarchical recruitment process might also hinder the process to be managed efficiently. As noted earlier, the R&D departments are mainly recruiting when there is an observed competency gap. Yet, acting short-term will contribute to problems in the long-term, as Gao et al. (2014) claim the digitalization to rapidly intensify within the automotive industry.

In order for the automotive MNC to maintain an adequate competence basis, recruiting managers need to take advantage of software competencies when entering the MNC, and not only recruit when there is a vacancy available. Further, due to the R&D departments' slow and hierarchical recruitment process, adequate talents may find other employments before the MNC manage to provide a position. Thus, missing out what King (2015) refers to 'high-potential' talents holding adequate competencies, which contribute to future business

performance. In order to avoid such scenarios, the R&D departments must recruit more proactively and maintain a more long-term oriented perspective. Recruiting managers must therefore become more confident in their recruitment of international software talents when a candidate applies for a position at R&D of one's own accord. Hence software competencies entering today might be crucial tomorrow.

5.3.1 Talent Identification

As noted earlier, HR practitioners' identification of talent is yet one of the most critical elements of any GTM system (McDonnell & Collings, 2010). Again, talent is only of strategic value if identified, nurtured, and used effectively (ibid). Recruiting managers have been revealed to rather identify software talents among homogeneous candidates educated at a Swedish university and whom' background the managers can relate to. This is argued to be on the expense of the adequate software competencies the R&D departments need to identify, and hence the value such talents may provide. Lacking the ability of how to manage these new software competencies and the different cultures international candidates may represent, their competencies cannot be developed and nurtured, nor can they be effectively utilized.

Due to the global context, talent identification becomes a particularly complex issue for MNCs (McDonnell et al., 2011). It is therefore important for MNCs to ensure culturally diverse HR teams (ibid). Still, where international talents correspond a minority, the automotive MNC is accordingly not representing what defines a global workforce. Therefore, reflecting a poor global footprint according to McDonnell et al. (2011). Recruiting managers would nevertheless benefit looking beyond language barriers, thus refocusing their identification towards the diversity an international software talent may contribute, rather than the complexities these candidates can bring.

Besides the global context, identifying talent has become ever more challenging due to the technology-drive paradigm shift, demanding MNCs to identify new types of competencies (Brooke & Matthews, 2012). For recruiting managers of R&D, this implies not only the identification of new software competencies but also software competencies originating from other industries but the automotive. This demands recruiting managers to identify adequate software competencies among candidates holding both different professional and national backgrounds. Yet, the complexity resulting from identifying this new type of software

competencies cannot solely be undertaken by recruiting managers. Again, the authority delegated to recruiting managers must be distributed more equally to HRBPs but also to recruiting colleagues, thus including these parties within the identification and selection of software talents. The identification of adequate software competencies should thereby hold a more collective character including more brains and opinions fostering the selection of international candidates.

Before undertaking the identification process of talent, MNCs need to gain a clear understanding of what talent specifically means to the corporation (McDonnell & Collings, 2010). Although talent has been expressed by some as an unprogrammed ability to become whatever the R&D departments demand them to be, no mutual understanding of how the R&D departments equally define talent has been revealed. Fundamentally, no agreed definition of the new software competencies recruiting managers seek to identify and select is demonstrated. Yet, applying competencies, commitment and contribution as part of their talent identification, this is rather the result of an unofficial framework unconsciously undertaken by several recruiting managers of the R&D departments.

The identification of software talents undertaken by the recruiting managers of the R&D departments lack a standardized process and a well-reasoned strategy. Thus confirming the identification process undertaken by recruiting managers as a 'know it when I see it adventure' (Adams, 2011, p. 7). Rather than a carefully and systematically planned evaluation process, misidentification of talent, wasted competencies and failure in their undertaking of GTM have accordingly proved the result. Thereby, confirming the outcomes of what such haphazard approach may conduct (Adams, 2011). As noted above, the external recruitment supplier is a crucial contributing factor providing a poor sample of international candidates of which adequate software competencies can be identified. Again, the request upon which recruiting colleagues and supporting instances should guide and support recruiting managers more, confirms the multiple actors model provided by King (2015) for MNCs to successfully perform GTM practices.

Competence

As suggested by McDonnell et al. (2011), recruiting managers equally refer to competencies as the knowledge, skills and values brought by software talents to their teams. In addition, the

social competencies held by software talents are claimed as important as the technical competencies held by these candidates. Yet, contrasting views of how the social competencies are expressed among 'digital natives' confirm recruiting managers' lacking ability to identify such competencies. Recruiting managers moreover confirm their lacking ability to interpret software competencies gained from foreign universities. Again, the difficulties confirmed by recruiting managers in their identification of international talents reveals their lack of knowledge in identifying adequate software competencies.

Commitment

It has been revealed from the empirical findings that some respondents believe many candidates do not mind what product is supplied from the production line. However, this has not proved necessary if candidates declare their commitment to the automotive MNC and its core values. Yet, this becomes part of the challenge for recruiting managers identifying commitment among software talents. Notably, concerning those candidates originating from software industries excluding the automotive. Hence recruiting managers must rather identify software candidates committed to the brand and the delivery of high quality, and not necessarily their commitment to cars. The engagement of those individuals with their work role as suggested by McDonnell et al. (2011), must accordingly be reformulated by recruiting managers thus being the engagement towards more software and less hardware.

Contribution

Aligned with McDonnell et al. (2011), recruiting managers extend their identification of talent beyond input, and hence software candidates' contribution to their teams and remaining departments. Equal with the competencies defined as part of their talent, software candidates' contribution is therefore confirmed to regard outputs. Further, as noted earlier, MNCs should consider a fit between individual competencies and the strategic requirements of the MNC, and thus talents' potential contribution to corporate performance (McDonell et al., 2011). Yet, lacking the ability to manage a new type of software talents, a match between such competencies and the strategic requirements will not be achieved, and potential contribution to corporate performance cannot be attained. In addition, due to the revealed lacking ability for recruitment managers to nurture such software competencies, individuals' finding of meaning and value in their work may not be identified as part of these talents' contribution.

5.3.2 Talent Selection

Aligned with the identification of talent undertaken by the recruiting managers of R&D, the selection process of international software candidates lacks a standardized process and a well-anchored strategy. Also, talent selection is not stressed as part of recruiting managers' GTM. Accommodation and working visa are nevertheless frequent examples of practical obstacles seemingly hindering the selection of international software talents. However, such practical issues are all factors, which lie beyond recruiting managers' power to affect. Further, recruiting an international candidate requires more time and financial resources from the automotive MNC's point of view. The relocation package provided for international candidates is very expensive and recruiting managers need to ask for an approval before such selection.

The empirical findings have highlighted two issues that affect the talent selection of international candidates. First, aligned with the theoretical framework, the time aspect has a huge impact on why recruiting managers might choose a national candidate before an international talent. The lack of time is an aspect mentioned throughout all interviews in the selection process of new software talents. Second, a main obstacle is the resource-intensive aspect, frequently mentioned during the interviews why hindering the recruitment of international talents. Thus, time and resources are, according to the R&D departments, some of the disadvantages in terms of selecting international software talents.

Based on the theoretical framework provided by Vaiman et al. (2012), a MNC undertaking global talent selection is nevertheless unlikely to have the time or capability to carefully consider all candidates. In this regard, when time and capability are lacking, recruiting managers tend to select candidates closer to them. This is also reflected in the empirical framework, claiming that it is more time-consuming and resource-intensive selecting an international software candidate. However, to remain competitive the automotive MNC is required to manage talent on a global basis (Vaiman et al., 2012). Therefore, recruiting managers need to have a more talent-focused perspective to improve their selection of software talents (Boudreau & Ramstad, 2005). Additionally, as argued by Brewster and Suutari (2005), recruiting managers of R&D need to improve their knowledge and ability to select adequate competencies. The R&D departments and their supporting instances, just as the remaining corporation, should pay more attention to the strategic importance of these HR

practitioners (Brooke & Mathews, 2012; Björkman et al., 2014; Farndale et al., 2010). Fundamentally, regarding their identification and selection of adequate software competencies. The MNC's R&D departments in general, and its recruiting managers in particular, should therefore specify each and every activity to obtain what Boudreau and Ramstad (2005) term 'decision science', enhancing their selection of international talents.

6. Conclusion

The concluding chapter introduces a summary of previous chapters, followed by the suggested recommendations, and the authors' suggested further research areas. The chapter aims to provide a general understanding of the thesis' contribution and results, thus answering the research question formulated above.

6.1 Summary

The automotive MNC of study is currently facing a competence shortage resulting from the ongoing digitalization of the automotive industry. The paradigm shift follows an increased competition for adequate software competencies now extending beyond national and industrial borders. Hence improving the pressure on the MNC to attract and recruit international and adequate software talents. Yet, the R&D departments of study do not struggle in their attraction of such talents, it is rather the identification and selection of international software competencies that are lacking. International talents therefore correspond a minority at the automotive MNC, and a global workforce is not represented. Besides, talent management in a global context is absent within the automotive MNC of study. Consequently, the generic understanding of GTM among recruiting managers of the R&D departments is poor, lacking a clear explanation and what practices that are included. The formulated research question for the thesis follows: *How does HR practitioners of automotive MNCs identify and select international software talent to maintain an adequate competence basis required to manage the digitalization of the automotive industry?*

Recruiting managers of the R&D departments undertake the identification and selection of software candidates for the automotive MNC of study. Recruiting managers are denoted by the MNC as the HR practitioners of study, hence what theory terms supervisors and line-managers. The identification and selection of international software talents undertaken by recruiting managers of the R&D departments lack a standardized process and a well-reasoned strategy. In its most generic illustration, international software competencies are first identified and selected by the external recruitment supplier, providing recruiting managers with a sample of candidates perceived to hold adequate software competencies. Interviews are

thereafter undertaken with software candidates in order to assess adequate technical as well as social competencies held by these candidates. Although, steering documents and interview guidelines are provided during interview sessions, the identification of adequate competencies is yet rather a 'know it when I see it adventure'. The authority in making the decision of which among the software candidates to select is thereafter principally delegated to each recruiting manager.

Recruiting managers of the R&D departments have proved a huge impact on the identification of competencies, commitment and contribution, and therefore the departments' maintenance of an adequate competence basis. In their identification of talent, competencies are referred to as knowledge, skills and values brought by software talents to their teams. Further, commitment has proved to regard the corporate brand and the delivery of high quality, and hence not necessarily a commitment to cars and the automotive industry. Software candidates' contribution are moreover confirmed to imply outputs. Yet, if the competencies and commitment held among international software candidates are not utilised, and such talent are not fostered, their contribution may not be achieved.

There is a requested need for recruiting managers to improve their understanding and acceptance for a new type of talents and to effectively identify and select software candidates irrespective their nationality. Besides, recruiting managers are requested to become more accepting towards the complexity that diversity implies to the management of international software talents. The challenge for recruiting managers is accordingly a cultural trip moving their focus from control to trust.

International software talents are currently recruited into the R&D departments where a traditional and obsolete corporate culture is hindering an Agile organizational transformation the paradigm shift requires. The external recruitment supplier is a contributing factor providing a poor sample of international candidates of which adequate software competencies can be identified. However, there are also practical obstacles that have been proved to be determining factors underlying recruiting managers' power to affect the selection of international software talents. Recruiting an international candidate requires more time and financial resources from the R&D departments' point of view. Therefore, recruiting managers tend to select candidates closer to them, both culturally and geographically. Such selection has however proved to potentially be on the expense of adequate competencies.

6.2 Recommendations

Resulting from the concluding remarks outlined above, three main recommendations have emerged in order for the R&D departments to improve their recruiting managers' identification and selection of international software talents, and to maintain an adequate basis of competencies. In brief terms and according to the understanding of the thesis' authors, the following recommendations are suggested.

First, recruiting managers of R&D and their supporting instances need to gain a mutual and equal understanding of what GTM implies for the departments in general, and for each of these HR practitioners in particular. Aligned with this recommendation, seeking an equal definition of GTM must include an understanding of how recruiting managers' talent identification and talent selection relate to the ongoing digitalization of the automotive industry. As part of this recommendation further, GTM should be perceived more as a transversally interrelated strategy, mutually undertaken by all HR practitioners including the P&Q unit. Thus, undertaking a multiple actors strategy where GTM rather becomes a collective construction. In this regard, a mindset of 'being Agile' rather than merely 'doing Agile' can be more easily achieved, fostering a more network-oriented perspective and undertaking of GTM.

Second, the delegated authority in the talent identification and talent selection among international software candidates is recommended to become more dispersed to supporting instances such as HRBPs. As part of their support during the recruitment process, HRBPs should challenge recruiting managers to seek beyond practical and language-related barriers in the selection of international talents. HRBPs are therefore recommended to extend their operational support to become more strategical, and to guide recruiting managers in processes requiring more time and resources. Again, the undertaking of a multiple-actors strategy where the identification and selection of international software candidates become a more collective matter will accordingly facilitate the improved authority imposed for HRBPs. In order to seek improved authority among HRBPs, the knowledge held by HRBPs must be improved considering the adequate competencies the R&D departments currently aspire to recruit. Hence stressing their support in becoming more strategical will foster closer collaboration between HRBPs and recruiting managers of R&D hence facilitating this learning process.

Third, with the purpose of gaining an improved command of the identification and selection of international software candidates, and to foster a more Agile mindset, the R&D departments are recommended to insource the entire recruitment process of such talents. Extensive lead times will accordingly be lessened, and the elimination of adequate talents, due to a lacking understanding of such candidates be reduced. Lessened lead times further implies for recruiting managers to act more flexible and Agile in their identification and selection of international software talents. Besides, as part of the recommendation of improving the support and delegated authority for HRBPs, this will compensate for the extended scope this reorganization implies for recruiting managers.

As part of insourcing the recruitment process further, and aligned with an Agile mindset, the identification and selection of international software talents are recommended to become more transversely undertaken by recruiting managers of R&D. Identifying adequate software competencies however more suitable for a neighbouring R&D department, such talents are recommended to become more mobile between the recruiting managers of the entire P&Q unit. Again, an Agile mindset will accordingly facilitate this network-oriented perspective, and adequate competencies will not be missed out. Besides, a more proactive and long-term oriented identification and selection of international software competencies can be achieved to fill future potential talent gaps and maintaining an adequate competence basis.

6.3 Further Research Areas

In light of the undertaken thesis, several interesting research areas have been touched upon but which were deemed to lie outside the scope and purpose of the thesis. These further research areas would accordingly be interesting to investigate in future. In this regard, a better understanding and validity can be provided of how to improve the identification and selection of international software talents for the maintenance of an adequate competence basis. In parallel, also broadening the literature field within GTM by undertaking similar projects like this study.

Limited to line-managers and supervisors, it would be interesting to extend the undertaking research for this thesis with the remaining HR practitioners including the multiple actors

model provided by King (2015). A more in-depth investigation could thereby be provided analysing how several actors interact and contribute to the maintenance of an adequate basis of competencies, and thereby their collective construction of GTM. It would moreover be interesting to extend the thesis' target of the HR practitioners with the intersections of these practitioners and their undertaken HR practices, just as the co-created HR praxises they take part in. Thereby enhancing the undertaken research for the thesis with the remaining two legs presented by Björkman et al. (2014), thus complementing their conceptual tripod and hence providing a more in-depth investigation than merely the HR practitioners.

Although including the definition of GTM applied to the undertaken research, the attraction, development and retention of talent exclude the scope and purpose of the thesis. It would therefore be interesting with further research investigating how automotive MNCs seek to attract international and adequate software competencies while simultaneously seek to retain identified and selected talents. Besides, investigating how various undertakings of GTM can nurture and foster the development of those competencies held by international software talents. Extending the thesis with further research of the attraction, development and retention of software talents would thereby provide an in-depth investigation of how the automotive MNC of study seek to maintain their basis of adequate competencies to manage the ongoing digitalization.

As noted above, the thesis is limited to a few departments including the automotive MNC of study. In order to gain improved validity by the identification and selection of software talents and for the maintenance of an adequate competence basis, it would therefore be of interest to include more units and departments by the MNC of study. A comparative investigation could thereby complement the undertaken study for the thesis, analysing how various departments and units seek to maintain an adequate basis of international software competencies. Besides, to seek further understandings for how multinational automotive MNCs are managing the on-going digitalization of the automotive industry, it would be interesting to extend extant research with a multiple case study. Similar automotive MNCs like the corporation of study could accordingly include the sample of studied cases where the identification and selection of international software talents can be analysed in parallel.

7. Appendix

7.1 Interview Guide

Introduction & Background

The introduction will begin with a brief presentation of the thesis' authors and the thesis followed by a presentation of the respondent. The presentation of the respondent is requested to include the respondent's position at the P&Q unit, the HR P&Q department or any of the R&D departments, the respondent's official corporate title and a specification of his or hers day-to-day operations.

- Do You have an international background and if so; what kind of international background do You have?
- Could You please tell us Your academical and practical background and experiences?
- Have You been provided or been undertaken any further education within the automotive MNC of study?

Problematization: the Digitalization of the Automotive Industry
- In what way/ways has/have the ongoing paradigm shift impacted on the automotive MNC of study?
- What will be the requirements for the automotive MNC to maintain their competitiveness in the automotive industry?
- Resulting from the digitalization of the automotive industry; what is/are the current challenge/challenges the MNC is facing?

International Human Resource Management
- Are You involved in any recruitment process of software talents?
- If so; could You please explain the recruitment process of software talents within HR P&Q, thus being from an application to signing a contract?
- What is Your role in the recruiting process? (e.g. give examples of practices, operations, assignments, various steps etc.)
  - Which specific HR practitioners involve the recruitment process and what are their roles?
- Do You follow any established framework throughout the recruitment process?
  - Do You follow any steering documents/tools?
  - How long is the process?
  - What are the preparations?

Global Talent Management
- Are You familiar with Global Talent Management and if so; how do you define GTM?

- How does your department define GTM and what are Your perception of how the automotive MNC define GTM?
- What is your undertaking of GTM?
- What is the MNC's undertaking of GTM?
- Could You please outline the software talents/competencies Your unit/department are looking for to maintain an adequate competence basis for the automotive MNC?
- Where do Your unit/department source these competencies both in terms of nations, industries or specific locations?

Talent Identification

- Please describe the generic process of talent identification at the P&Q unit.
- How do You and Your unit/department define talent in terms of the following concepts;
    - Competencies?
    - Commitment?
    - Contribution?
- Do You follow any established framework throughout the talent identification process?
    - Do You follow any steering documents/tools?
    - How long is the process?
    - What are the preparations?

Talent Selection

- Please describe the generic process of talent selection at the P&Q unit.
- How do You and Your unit/department select software talents?
    - Who hold the final decision to recruit?
    - How many are involved in the talent selection process?
    - What tools are You using in order to secure that right selections are made?
- What is Your perception of what influence the selection of software talents in terms of the following concepts;
    - Talent shortages?
    - Diversity?
    - Demographics?
    - CSR?
    - Increasing mobility?
    - Increasing impact on emerging market?
    - Shifts towards more knowledge based economy?
- Do You follow any established framework throughout the decision making process?
    - Do You follow any steering documents/tools?
    - How long is the process?
    - What are the preparations?

Thank You for Your participation!

8. References

Adams, D. (2011). Using Assessments for High-Potential Identification. *Employment Relations Today*, pp. 7-13.

Al Arris, A. (2014). *Global Talent Management: An Introduction and Review.* In: Al Arris, A. *Global Talent Management. Challenges, Strategies, and Opportunities.* Toulouse: Springer. Management for Professionals, pp. 3-13.

Bartlett, S. & Ghoshal, C. A. (1990). The multinational corporation as an interorganizational network. *Academy of Management Executive,* 15, pp. 603-625.

Baxter, P & Jack, S. (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report,* 13(4), pp. 544-559.

Beechler, S. & Woodward, C. (2009). The global "war for talent". *Journal of International Management*, 15, pp. 273-285.

Birchall, D. W., Tovstiga, G. & Chanaron, J. (2001). Capabilities in strategic knowledge sourcing and assimilation: a new look at innovation in the automotive industry. *International Journal of Automotive Technology and Management,* 1(1), pp. 78-91.

Biygautane, M. & Al Yahya, K. O. (2014). *Talent Management in the MENA and GCC Regions: Challenges and Opportunities.* In: Al Arris, A. *Global Talent Management. Challenges, Strategies, and Opportunities.* Toulouse: Springer. Management for Professionals, pp. 197-215.

Björkman, I., Ehrnrooth, M., Mäkelä, K., Smale, A. & Sumelius, J. (2014). From HRM practices to the practice of HRM: setting a research agenda. *Journal of Organizational Effectiveness: People and Performance,* 1(2), pp. 122-140.

Bloor, M. & Wood, F. (2006). *Keywords in qualitative methods: a vocabulary of research concepts*. London: Sage

Boselie, P., Dietz, G. & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal,* 15(3), pp. 67-94.

Boudreau, J. W. & Ramstad, P. M. (2005). Talentship and the new paradigm for human resources management: From professional practices to strategic decision science. *Human Resource Planning.* 28(2), pp. 17-26
Boudreau, J. W. & Ramstad, P. M. (2007). *Beyond HR: the new science of human capital.* Boston: Harvard business school press

Brewster, C. & Suutari, V. (2005). Global HRM: aspects of a research agenda. *Personnel Review,* 34(1), pp. 5-21.

Brooke, B. & Mathews, P. (2012). *Paradigm Shift: Building a new talent management model*

to boost growth. [Online]. London: Ernst & Young, EYGM Limited. [PDF].

Bryman, A. & Bell, E. (2011). *Business Research Methods.* 3th Ed. Oxford: Oxford Uni. Press

Bryman, A. & Bell, E. (2015). *Business Research Methods.* 4th Ed. Oxford: Oxford Uni. Press

Bucker, J. (2014). *Culture Intelligence as a Key Construct for Global Talent Management.* In: Al Arris, A. *Global Talent Management. Challenges, Strategies, and Opportunities.* Toulouse: Springer. Management for Professionals, pp. 65-78

Collings, D. G. & Mellahi, K. (2009). Strategic talent management: a review and research agenda. *Human Resource Management Review*, 19(4), pp. 304-13.

Denning, S. (2016). How to make the whole organization 'Agile'. *Strategy & Leadership,* 44(4), pp. 10-17.

Dubois, A. & Gadde, L-E. (2002). Systematic Combining; an abductive approach to case research. *Journal of Business Research.* 55, pp. 553-560.

Divakaran, A., Mani, A. & Post, L. (2012). *Finding, developing, and retaining tomorrow´s manufacturing workforce*. [Online]. London: PricewaterhouseCoopers, Strategy & PWC. [PDF].

Eriksson, P. & Kovalainen, A. (2015). *Qualitative Methods in Business Research: A Practical Guide to Social Research*. [Online]. Los Angeles, California: SAGE [Accessed 2 March 2017]. Available from: https://books.google.se/books?id=Yv-ICwAAQBAJ&pg=PA339&lpg=PA339&dq=Qualitative+Methods+in+Business+Research:+A+Practical+Guide+to+Social+Research&source=bl&ots=MKAqLA1G0R&sig=P3FdEMz28sxDRhDwIa9N6nUojfo&hl=sv&sa=X&ved=0ahUKEwiH5Yj2iMfSAhUESJoKHZeVB1QQ6AEITjAH#v=onepage&q=Qualitative%20Methods%20in%20Business%20Research%3A%20A%20Practical%20Guide%20to%20Social%20Research&f=false

Farndale, E., Scullion, H. & Sparrow, P. (2010). The role of the corporate HR function in global talent management. J*ournal of World Business*, 45, pp. 161-168.

Gao, P., Hensley, R. & Zielke, A. (2014). A roadmap to the future of the automotive industry. *McKinsey&Company Automotive & Assembly.* [Online]. October. [Accessed 19 January 2017]. Available from: http://www.mckinsey.com/industries/automotive-and-assembly/our-insights/a-road-map-to-the-future-for-the-auto-industry

Gao, P. Kaas, H. W., Mohr, D., Möller, T. & Wee, D (2016). *"Automotive revolution – perspective towards 2030. How the convergence of disruptive technology-driven*

trends could transform the auto industry". [Online]. New York: McKinsey & Company Advanced Industries. [PDF].

Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report,* 8(4), pp. 597-606.

Guest, D. (2011). Human resource management and performance: still searching for some answers. *Human Resource Management Journal,* 21(3), pp. 3-13.

Gutmann, K. (2015). The importance of agile design in the automotive industry. *Global Manufacturing.* [Online]. 24 November. [Accessed 5 April]. Available from: http://www.manufacturingglobal.com/technology/582/The-importance-of-agile-design-in-the-automotive-industry

Harzing, A-W. & Pinnington, A. (2015). *International Human Resource Management.* 4th Ed. Los Angeles: SAGE.

Hirsh, E., Jullens, J., Wilk, R. & Singh, A. (2016). *2016 Auto industry trends. Automakers and suppliers can no longer sit out the industry's transformation.* [Online]. London: PricewaterhouseCoopers, Strategy & PWC. [PDF].

Häger, B. (2007). *Intervjuteknik.* 2nd Ed. Stockholm: Liber

Jarzabkowski, P., Balogun, J. & Siedl, D. (2007). Strategizing: The challenges of a practice perspective. *Human Relations,* 60, pp. 5.

Jarzabkowski, P. & Spee, A. P. (2009). Strategy-as-practice: a review and future directions for the field. *International Journal of Management Review,* 11(1), pp. 69-95.

King, K. A. (2015). Global Talent Management: Introducing a strategic framework and multiple-actors model. *Journal of Global Mobility.* 38(1), pp. 57-72.

Kostron, A., Brauchle A. & Hanisch, B. (2016). *White paper: 'Rise of Agile in Automotive R&D?'.* [Online]. Stuttgart: Horváth & Partners Management Consultants. [PDF].

Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology,* 49(1), pp. 1-49.

Larsson, L-Å. (2010). Intervjuer. In: Ekström, M. & Larsson, L-Å. 2nd Ed. *Metoder i kommunikationsvetenskap.* Lund: Studentlitteratur, pp. 61, 63, 65, 68-70, 74-77.

Lewis, R. E. & Heckman, R. J. (2006). Talent Management: A critical review. *Human Resource Management Review,* 16, pp. 139-154.

McDonnell, A. & Collings, D., G. (2010). *The identification and evaluation of talent in MNEs*. In: Scullion, H. & Collings, D., G. (Eds). *Global Talent Management.* London & New York: Routledge Taylor & Francis Group, pp. 56-73.

McDonnell, A., Hickey, C. & Gunnigle, P. (2011). Global talent management: exploring talent
      identification in the multinational enterprise. *European J. International Management,*
      5(2), pp. 174-193.

Monks, K., Kelly, G., Conway, E., Flood, P., Truss, K. & Hannon, E. (2013). Understanding
      how HR system work: the role of HR philosophy and HR processes. *Human Resource*
      Management Journal, 23(4), pp. 279-395.

Mohr, D., Wee, D. & Möller, T. (2016). Eight disruptive trends shaping the auto industry of
      2030. *Automotive World.* [Online]. 16 March. [Accessed 15 November]. Available
      from: http://www.automotiveworld.com/analysis/eight-disruptive-trends-shaping-auto
      -industry-2030/

Mullaney, E. (2012). *Talent mobility; A Global Approach to Talent Management*. [Online].
      London: Wordatwork, PWC. [PDF].

Natacha, M., Golik, M. & Blanco, R. (2014). Talent identification and development tools
      Two to tango? *Management Research: The Journal of the Iberoamerican Academy of*
      Management. 12(1), pp. 23-39.

Perkins, S. & Arvinen-Muondo, R. (2013). *Organizational behaviour: [people, process, work*
      and human resource management]. London: Kogan Page.
      http://ebookcentral.proquest.com.ezproxy.ub.gu.se/lib/gu/reader.action?ppg=4&docI
      D=1098135&tm=1486462475849#

Rupidara, N. S. & McGraw, P. (2011). The role of actors in configuring HR systems within
      multinational subsidiaries. *Human Resource Management Review,* 21(3), pp. 174-185.

Schuler, R. S., Budhwar, P. S. & Florkowski, G., W. (2002). International Human Resource
      Management: review and critique. *International Journal of Management Reviews,*
      4(1), pp. 41-70.

Schuler, R. S., Jackson, S. E. & Tarique, I. (2011). Global talent management and global
      talent challenges: Strategic opportunities for IHRM. *Journal of World Business,* 46(4),
      pp. 506-516.

Scullion, H. & Collings, D. G. (2011). *Global Talent Management*. [Online]. London & New
      York: Routledge Taylor & Francis Group. [Accessed 23 January 2017]. Available
      from: http://samples.sainsburysebooks.co.uk/9781135234454_sample_839539.pdf

Scullion, H. & Collings, D. G. (2010). Global Talent Management. *Journal of World*
      Business, 45, pp. 105-108.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Division of Information and Communication Studies, School of Informatics, Lipman Building. Northumbrian University, Newcastle.* 22, pp. 63-75

Tarique, I. & Schuler, R. S. (2010). Global talent management: literature review, integrative framework, and suggestions for further research. *Journal of World Business,* 45(2), pp. 122-133.

Ulrich, D. (2006). The talent trifecta. *Workforce Management,* pp. 32-33.

Vaiman, V., Scullion, H. & Collings, D. (2012). Talent management decision making. *Management Decision,* 50(5), pp. 925-941.

Werbel, J. D. & Gilliland, S. W. (1999). Person-environment fit in the selection process. In Ferris G.R. *Research in Personnel and Human Resource Management*, 17(1), pp. 209-243.