

Prevent a Vicious Circle!

The Role of Organizational IT-Capability in Attracting IT-affine Applicants

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Abstract. Organizational IT-capability is a key to meet the challenges of digital transformation. Its advancement requires the attraction of IT-affine applicants. Their application intentions, however, depend on positive perceptions of an employer's existing IT-capability. Merging findings from Information Systems Research, Human Resource Research, and Psychology, this study conducts an experimental survey to investigate how the perception of organizational IT-capability influences job seekers' application intentions. 228 observations were analyzed using the PLS-SEM method. It provides empirical evidence that (1) the perception of organizational IT-capability influences job seekers' application intentions and that (2) this influence is of particular strength for IT-affine job seekers. This knowledge is fundamental to understand the outstanding role of organizational IT-capability in the current 'war for talents'.

Keywords: Digital Transformation, IT-Capability, Person-Organization Fit, Intention to Apply, Applicants' Self-Selection

1 Introduction

Organizational Information Technology (IT)-capability is considered a key factor to transform IT into a competitive advantage [1–3]. In a Resource Based View, organizational IT-capability is a complex package of IT-related resources including human skills and knowledge [4, 5]. As employees' knowledge and skills play a major part in the enhancement of a firm's IT-capability it is crucial for firms to attract and employ technically high-skilled employees [4].

Current shortages on the labor market, however, are creating a 'war for talents', especially with regard to high-skilled IT-specialists. A managerial study of Capgemini Consulting, for example, revealed that "77% of [the] companies considered missing digital skills as the key hurdle to their digital transformation" [6]. Therefore, it is crucial for organizations to know about the specific drivers of IT-affine job seekers' application intentions.

Following P-O-fit theory, job seekers generally prefer organizations that match their individual characteristics [7–11]. This fosters a feeling of 'fit' with a potential

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employer, which was found to be essential for application intentions [10]. Applying this fit-perspective, it seems especially important for IT-affine job seekers that their individual IT-capability matches the potential employer's organizational IT-capability. Consequently, job seekers with a high level of individual IT-capability are likely to prefer organizations with an equally high level of organizational IT-capability, whereas they are likely to eschew employers with a minor level of IT-capability.

This endangers low-capability organizations to enter a vicious circle: From a resource based perspective, the development of their organizational IT-capability requires the attraction of high-skilled employees [4] – which they probably cannot attract. Consequently, their organizational IT-capability will further diminish, which makes it more and more difficult to attract savvy employees. To prevent such a vicious circle, it is crucial to empirically investigate the underlying mechanisms to develop proper countermeasures.

Therefore, this study addresses two primary research questions:

1. Does the perception of organizational IT-capability influence job seekers' intention to apply?
2. Is this influence of particular strength for job seekers with a high level of individual IT-capability?

To answer these questions this research takes a new perspective on IT-Capability and combines it with existing theories and metatheories anchored in Human Resource Research and Psychology, (1) to investigate how the perception of organizational IT-Capability influences job seekers' application intention and (2) to explain applicants' self-selection behavior in this context. From a practical point of view, this knowledge is fundamental to understand the outstanding role of organizational IT-capability in the current 'war for talents'.

2 Theoretical Background and Hypotheses Development

2.1 Theoretical Framing

Previous research pointed out that the attraction of potential applicants is – from a theoretical point of view – a complex issue that results from an interaction of various theories concerning information processing, perception development and subjective fit [12]. Therefore, this study does not built on a single theory but merges findings from different relevant theories.

This merge primarily bases on the directive theoretical contribution of Ehrhart and Ziegert [12] who presented relevant theories from human resource research and psychology and organized them along their key-aspects in respective meta-theories. Especially the first two meta-theories provide a valuable theoretical background for this study: The first meta-theory – *Environmental-Processing Theory* (including, inter alia, *image theory* and *signaling theory*) emphasizes that (1) there is a difference between objective and individually perceived characteristics of an organization and

that (2) there is a relationship between those perceptions of organizational characteristics and attraction [12]. The second meta-theory – *Interactionist Processing Metatheory* – strongly builds on *P-O-fit theory* [9] and primarily considers the interaction between person characteristics and environmental characteristics [12]. Both meta-theories (and their underlying theories) feed in the subsequent hypotheses development sections.

Additionally, research from the field of value-driven marketing (see [13] for an overview) is taken into account to further support the basic idea of this study that particularly *perceptions* of organizational IT-Capability matter for the attraction of proper applicants – as this research stream clearly points out, that the value of a product or service process (including a vendor’s resources and capabilities) depends on the customer’s perception and appreciation [14].

2.2 Organizational IT-Capability and Intention to Apply

Organizational IT-capability “is a firm’s ability to acquire, deploy, combine, and reconfigure IT-resources in support and enhancement of business strategies and work processes” [2]. Following the established conceptualization of IT-capability in Information Systems Research, it reflects the three dimensions: IT Infrastructure Capability, IT Business Spanning Capability, and IT Proactive Stance [2]. IT Infrastructure Capability captures the extent to which a firm is good at data management, network communication, architecture and application management, IT Business Spanning Capability considers a successful interaction between business and IT strategy, and IT Proactive Stance reflects, whether a firm is open for IT-innovations [2].

As an organization’s IT-capability reflects a complex interaction between these three dimensions including technical and human resources, it is rare and difficult to imitate [4]. It was found to be an important enabler of organizational agility [2] and a key factor to meet the current challenges of digital transformation [15]. Therefore, previous research pointed out, that organizational IT-capability constitutes a competitive advantage [4]. As it determines an employer’s competitive standing and sustainability it may be of high relevance for potential employees.

An organization’s IT-capability is, however, not an externally observable attribute. Outsiders can only develop perceptions of an organization’s IT-capability based on the provided information. This information can, for example, be included into job ads – which were identified as an important source of information for applicants [16].

However, as an organization’s IT-capability must be kept rare and inimitable to further constitute a competitive advantage, an organization can not disclose any IT-related information. It will probably not disclose detailed insider knowledge about its database technology, application landscape, IT-architecture, or future IT-related business options. It can, however, provide rather general IT-related information that reflects a certain level of IT-expertise without jeopardizing its competitive advantage. For example, an organization could provide general information about the extent to which IT is integrated in its products, services, and business processes, whether they align business and IT strategy or about its fundamental stance towards IT innovations.

Following Signaling Theory, this information serves as a signal for potential applicants to develop perceptions of the respective organization's IT-Capability. [12, 17]. This *Perceived Organizational IT-Capability* can be defined as the degree to which a person believes that an organization is capable of using IT to support its business strategy and processes. This perceived organizational IT-capability may influence job seekers' application intentions for two main reasons:

1. Following Social Identity Theory, individuals prefer organizations they identify as superior to appear more successful in the eyes of others [10, 18]. Following Image Theory individuals prefer organizations that may foster a desired image [19, 20]. Building on these theories, previous studies for example revealed a clear relationship between a superior employer reputation [21–25] or a superior corporate image [10, 26, 27] and job seekers' application intentions. Therefore, a (perceived) superior level of organizational IT-capability is likely to positively influence job seekers application intentions as well.
2. As an organization's IT-capability constitutes a competitive advantage and is the key to manage the current challenges of digital transformation [2, 4, 15], it determines an employer's long-term sustainability and future economic success. It, therefore, ensures security of employment and employee salaries and provides the base for advancement possibilities. As these are important issues for potential employees [7, 10, 16], it is likely that they prefer employers they perceive as high-capable for this reasons as well.

Therefore I hypothesize:

H1: Perceived Organizational IT-Capability is positively associated with job seekers' Intention to Apply.

2.3 The Moderating Role of Individual IT-capability

The term IT-capability is usually used in an organizational context. However, the overall ability to acquire and purposefully use IT is not limited to organizations. In fact, each job seeker is characterized by a certain level of individual IT-capability. Reflecting his IT affinity in a professional sense, this *Individual IT-Capability* can be defined as a job seeker's ability to professionally use IT to support an employer's business goals.

This individual characteristic may affect the strength of the hypothesized influence of *Perceived Organizational IT-Capability* on *Intention to Apply*. This influence is supposed to be of particular strength for job seekers with a high level of *Individual IT-Capability* and weaker for job seekers with a rather low level of *Individual IT-Capability* for two main reasons:

1. Individual perception development generally depends on individual characteristics and preferences. People process information selectively and limit their attention to decision relevant aspects [12, 17, 19, 20]. Knowledgeable individuals were found to include more attributes in their perception development processes than less savvy individuals [28]. Therefore, IT-affine job seekers are likely to pay particular

attention to IT-related information about a potential employer and develop a sounder perception of a potential employer’s organizational IT-capability than less savvy job seekers. This sounder perception of organizational IT-capability is likely to constitute a clearer influence of *Perceived Organizational IT-Capability* on *Intention to Apply*.

2. Person-Organization (P-O) Fit Theory emphasizes the importance of perceived similarity between a person and its working environment. Reflecting the perceived congruence between individual and organizational attributes, interests, and values, P-O fit turned out to significantly influence job seekers’ application intentions and subsequent job choice decisions [8, 10, 29–31]. Consequently, job seekers with a high level of *Individual IT-Capability* are likely to clearly prefer employers with a similar high level of IT-capability which match their interests, use their IT-related skills and knowledge, and provide proper advancement opportunities. On the other hand, these IT-affine job seekers are likely to clearly eschew employers with an inferior level of IT-capability due to the missing ‘fit’. In contrast, job seekers with a rather low level of *Individual IT-Capability* may be somewhat discouraged by an exceedingly high level of employer IT-capability, so that the hypothesized positive relationship between *Perceived Organizational IT-Capability* and *Intention to Apply* may be weaker for less IT-affine job seekers.

Therefore, I hypothesize:

H2: The relationship between Perceived Organizational IT-Capability and Intention to Apply is stronger for job seekers with a high level of Individual IT-Capability compared to job seekers with a minor Individual IT-Capability.

3 Research Method

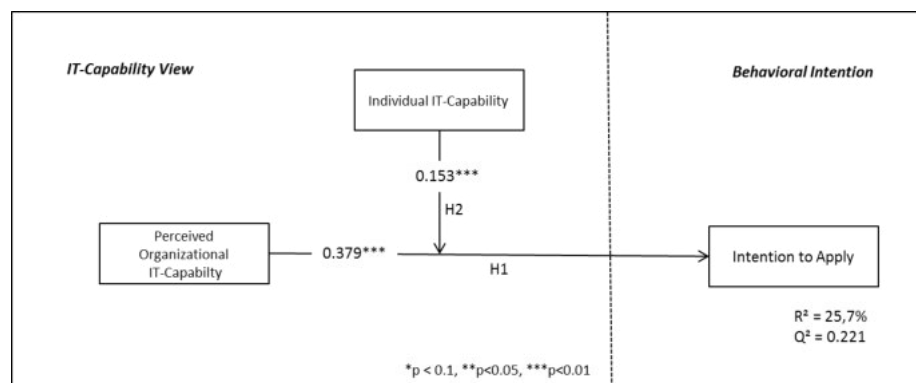


Figure 1. Research Model (Including Results of the PLS Estimation)

3.1 Study Design and Data Collection

To empirically test the hypothesized relationships this study applied an experimental survey approach. It was based on four hypothetical job ads: Whereas the company descriptions differed reflecting different levels of organizational IT-capability, all other factors (job description, company size and starting salary) were kept constant (see Appendix).

Confronting each participant with multiple hypothetical job ads seemed especially important as perception development processes were found to be comparative by nature [28]. Therefore, it seems – on the one hand – reasonable to confront each participant with multiple descriptions as a reference group to gain a proper assessment of each firm's IT-Capability. On the other hand, this research design may include the risk of gaining not entirely independent observations. To take both aspects into account I decided to confront each participant with four job ads – as a good middle – and to apply an additional test to ensure the validity of my results (see section 4.2).

Data were collected using two surveys (a pretest and a main survey) of students from the Department of Business, Economics and Information Systems of a German university during summer term 2017. To ensure a high response rate, the two surveys were conducted during class time in two IT-related classes. Business students of IT-related classes seemed a proper sample for three main reasons: First, they presumably have enough IT-related knowledge to assess their individual IT-Capability properly. Second, they are presumably more open-minded towards different job offers than professionals, as they are less influenced by prior work experiences. And third, this sample provides realistic and valuable results for the current labor as the questioned students are available for the labor market in the near future.

To ensure this last point, all participants were asked whether they can imagine applying for a job within the next twelve months at the beginning of the questionnaire. Only questionnaires with a positive answer to this question were taken into account and included in the further analysis. The participants were also questioned about their degree program, current semester, age and gender.

Thereupon, each participant was asked about a self-evaluation of his individual IT-Capability. This variable forms the base for the following moderation analysis. Afterwards, each participant was confronted with the aforementioned four hypothetical job ads reflecting different levels of organizational IT-capability. As previous research pointed out, that the sole quantity of information in job ads may influence job seekers' perceptions [16], particular attention was paid to a similar length of all provided company descriptions. These descriptions were all placed above the related questions to ensure that each participant has all descriptions in mind when answering the questionnaire. Each participant was then asked about his perception of each organization's IT-capability and his intention to apply to the respective organization.

The questionnaire (including the hypothetical job ads) was pretested for understandability and proper construct measurement with 16 students from a software development class. The pretest showed a good understandability of the provided information and the measurement scales as well.

The main survey was conducted in an information system class at the end of summer term 2017. From the main survey, I received 57 completed and usable questionnaires, each including assessments of the four different firms. This resulted in $57 \times 4 = 228$ total observations for further analysis. Among the 57 participants, 59.6% were female, 40.4% were male. The average age was 22.7 years. The participants were distributed over the Bachelor Degree Programs “International Cultural and Business Studies” (14.0%), “Business Administration and Economics” (78.9%) and “Information Systems” (7.0%).

As the study was conducted with German-speaking participants the questionnaire was provided in German language as well to prevent language-based problems. (The English translation of the provided information can be found in the Appendix). To ensure content equivalence of the German and English version, I followed the translation and back-translation procedure recommended in Brislin [32].

3.2 Construct Measurement

A job seeker’s ‘Intention to Apply’ (INTA) is an established and widely applied construct in recruitment research. Therefore, its measurement items were derived and adapted from the established measurement scales [10, 24, 33].

The established measurement scales for IT-Capability, however, are not entirely suitable for this study. The established view on IT-Capability is limited to organizations and demands deep insider knowledge about the respective firm. This study, however, requires – on the one hand – a measure to capture an outsider’s perception of an (potential) employer’s IT-Capability and – on the other hand – a measure that reflects each job seeker’s individual IT-Capability. These ‘views’ on IT-Capability both differ from the established conceptualization of IT-Capability and its related measurement scales. Therefore, this study develops two ‘new’ constructs *Perceived Organizational IT-Capability* (POITC) and *Individual IT-Capability* (IITC) – both derived from the ‘traditional’ IT-Capability perspective. This development procedure was realized in several steps:

1. To form a theoretical foundation for the formulation of proper measurement items, relevant prior research was reviewed – particularly focusing on different conceptualizations of IT-Capability, perception development processes, and individual aspects (e.g., the individual attitude towards IT). Thereupon, reflective measurement scales were formulated, which seemed suitable to capture a job seeker’s perception of an organization’s IT-Capability and to give an analogous self-evaluation of his individual IT-Capability.
2. These self-developed measures were afterwards discussed with several experienced researchers to ensure a proper measurement design with regard to explanatory value and understandable formulation. Adaptions were made where necessary.
3. Finally, a pretest was conducted with 16 students, to further evaluate the developed indicators’ understandability, validity and reliability. After finishing the pretest-questionnaire, all participants agreed that the questionnaire was clearly formulated

and well understandable. Additionally, the indicators' validity and reliability were tested by applying the evaluation procedure recommended in Hair et al. [34]. As the pretest showed good results, the measurement items were afterwards included in the questionnaire of the main study (see Table 1).

Table 1. Measurement Items of the Applied Constructs

<i>Perceived Organizational IT-Capability (POITC) (self-developed)</i>
<i>from 1= 'poorer than most' to 7= 'superior to most'</i>
In relation to other medium-sized companies in this industry, I have the following perception of company A/B/C/D:
(POITC1) Overall, the company's IT-capability is...
(POITC2) The professional and target-oriented use of IT is...
(POITC3) The capability to integrate IT in products and processes is...
<i>Individual IT-Capability (IITC) (self-developed)</i>
<i>from 1= 'poorer than most' to 7= 'superior to most'</i>
In relation to other students in economic degree programs...
(IITC1) I evaluate my overall IT-capability...
(IITC2) I evaluate my professional and target-oriented use of IT...
(IITC3) I evaluate my capability to integrate IT in products and processes...
Intention to Apply (INTA) [based on 10, 24, 33]
<i>from 1= 'strongly disagree' to 7= 'strongly agree'</i>
I evaluate the following statements with regard to company A/B/C/D:
(INTA1) If I saw a job opening for this company after graduation, I would apply for it.
(INTA2) If I were searching for a job, I would apply to this organization.
(INTA3) I would be pleased to work for this organization after my graduation.

4 Data Analysis and Results

The research model was evaluated by applying the PLS-SEM method – implemented in SmartPLS [35] – which is a widely applied method to analyze survey data. It is especially suitable to meet the exploratory nature of this study and works well with small sample sizes [34, 36]. Therefore, it seems a better choice for this study than a covariance-based approach.

4.1 Measurement Validation

The validation of the measurement model followed the established procedure recommended in Hair et al. [34].

To evaluate **internal consistency reliability** the composite reliability value (CR) and Cronbach's α (Cr. α) were computed for each reflectively measured construct. With Cronbach's $\alpha > 0.7$ and CR > 0.7 all constructs meet the proposed quality criteria [34, 37] (see Table 2). **Indicator reliability** demands that each indicator's outer

loading exceeds 0.7 [34]. With values between 0.816 and 0.970, indicator reliability is also given for each indicator. **Convergent Validity** is ensured with an Average Variance Extracted (AVE) higher than 0.5 [34] for each construct. Therefore, Convergent Validity is also fulfilled (see Table 2). To assess **Discriminant Validity**, the heterotrait-monotrait ration (HTMT) of the correlations was computed as proposed in Hair et al. [34] and Henseler et al. [38]. As Henseler et al. [38] propose a limit of 0.85 for HTMT values, the HTMT criterion is perfectly fulfilled in this study (see Table 2, bolded values). In summary, the evaluation of the measurement model showed that all constructs and indicators applied in this study meet the established quality criteria for reflective measurement models.

Table 2. Cronbach's Alpha, CR, AVE and HTMT

<i>Construct</i>	<i>Cr. α</i>	<i>CR</i>	<i>AVE</i>	<i>IITC</i>	<i>INTA</i>
IITC	.863	.915	.782		
INTA	.967	.978	.938	.323	
POITC	.939	.961	.891	.035	.390

4.2 Hypotheses Testing

The evaluation of the structural model including hypotheses testing also followed the established evaluation procedure recommended in Hair et al. [34]: The **structural model** was evaluated for collinearity issues to avoid critical levels of collinearity among the predictor constructs. The VIF values for POITC (1.003) and for IITC (1.001) are both clearly lower than the proposed threshold of 5 [34]. Thus, collinearity is not a critical issue. The amount of **variance explained** in the endogenous variable INTA was 25.7%, which is a high value for behavioral studies [34]. Predictive relevance was assessed using the cross-validated redundancy Q^2 [39, 40]. Q^2 is 0.221 for the sole endogenous variable *Intention to Apply* and therefore indicates predictive relevance ($Q^2 > 0$ is recommended in Chin [41]).

To evaluate the **significance of the proposed hypotheses** the path coefficients and t-values of the research model were computed applying the PLS Algorithm and PLS SEM Bootstrapping Routine with 5000 subsamples. All hypothesized paths turned out to be significant at a 1% level. The hypothesized direction of the paths was confirmed (see Figure 1). The link between *Perceived Organizational IT-Capability* and *Intention to Apply* (the so-called ‘Simple Link’) had a path coefficient of 0.379 and a t-value of 6.970 (> 2.57) for a two-tailed test. The moderating path had a path coefficient of 0.153 and a t-value of 2.750 (> 2.57) for a two-tailed test. The f^2 value, as an indicator of effect size, was 0.193 (> 0.15) for the link between POITC and INTA, which is classified as a medium effect [42]. The moderation has an effect size f^2 of 0.038 (> 0.025), which indicates a large moderation effect [43].

As the research design may include the risk of not entirely independent observations (see section 3.1), an additional test was conducted to exclude the threat of biased results: The research model was additionally tested with a reduced data set. This reduced set contained only one, randomly selected observation per participant.

The evaluation of the model based on this reduced data set showed very similar results as for the main evaluation. All hypotheses were supported in this analysis as well.

5 Discussion and Implications and Conclusions

This study posed two research questions:

1. Does the perception of organizational IT-capability influence job seekers' intention to apply?
2. Is this influence of particular strength for job seekers with a high level of individual IT-capability?

With regard to the first question, a clear link between the *Perceived Organizational IT-Capability* and job seekers' *Intention to Apply* was found. With regard to the second question, the job seekers' *Individual IT-Capability* turned out to significantly influence the strength of this relationship. Consequently, the perception of a potential employer's IT-capability affects job seekers with a high level of individual IT-capability significantly stronger than job seekers with a low level of individual IT-capability. These findings are consistent with the proposed hypotheses based on implications from prior research.

The study responds to a call for more research with regard to the attraction of proper employees in the initial stage of recruitment [16, 21, 44], especially with a focus on the influence of individual characteristics [12]. It provides initial empirical evidence, how the perception of a specific competition-critical organizational property influences job seekers' application intentions and fosters applicants' self-selection behavior. This knowledge is – in a broader sense – fundamental to better understand the outstanding role of organizational IT-capability in the current 'war for talents'. It provides theoretical and managerial implications as well:

From a theoretical point of view, this research extends the 'traditional' IT-capability perspective, anchored in information systems research, by transferring the common conceptualization of organizational IT-capability (1) to an outsider's perspective and (2) to an individual level. It advances theory and measurement by implementing and validating the concepts of *Perceived Organizational IT-Capability* and *Individual IT-Capability*. These views on IT-capability may provide a proper base for future studies in this context.

As this study bases on 'pure' perceptions of organizational IT-capability without providing any 'hard' data of the organizations' resources and capabilities, it clearly shows that perceptions matter for job seekers' application intentions. In this context, it is in line with (1) prior Marketing-related Research, which showed that the value of a firm's products, resources, and capabilities depends on the perception and appreciation of the customer and with (2) prior Human Resource Research considering the influence of positive perceptions on job seekers' application intentions. It shifts, however, the focus from rather general positive perceptions (e.g., an employer's corporate image) to a specific competition-critical organizational

property – an employer’s IT-capability. Therefore, this study identified an additional specific driver of job seekers’ application intentions. In times of increasing digitization, this ‘new’ driver will probably continue to grow in importance.

Furthermore, this study helps to better understand the basic mechanisms of applicants’ self-selection behavior by combining an applicant’s view on an organization’s IT-capability and his individual IT-Capability. It clearly shows that individual characteristics affect the strength of the identified relationship between *Perceived Organizational IT-Capability* and *Intention to Apply*. As the question “whether certain individual characteristics or individual differences may have a direct effect on attraction” is poorly investigated so far [12], this study may considerably contribute to this under-investigated field of recruitment research.

As the study provides a deeper understanding of applicants’ self-selection behavior especially with regard to the recruitment of IT-specialists, it may help **from a managerial perspective** employers (1) to develop targeted recruitment strategies and (2) to prevent the emergence of vicious circles. Both contributions are of high practical relevance in the current ‘War for IT-Specialists’:

As the attraction of proper applicants is essential for companies but the goal of attracting the greatest possible number of applicants is questionable [27, 45], employers have to develop an understanding of applicants self-selection mechanisms to particularly address employees with profiles matching the organizations’ requirements [44, 45]. In this context, this study clearly showed that information about an organization’s IT-capability particularly influences the application intentions of IT-affine job seekers. Keeping all other factors (job description, salary, etc.) constant, they clearly prefer organizations with a (perceived) high level of organizational IT-capability and clearly eschew low-capability organizations, whereas this influence is weaker for less savvy job seekers. Consequently, organizations should clearly promote their IT-capability in recruitment campaigns to attract IT-affine applicants.

This promoting effect of IT-related information in e.g., job ads is of particular relevance for organizations with a rather low level of organizational IT-capability. These firms face the risk to be trapped in a vicious circle, if they do not manage to attract IT-affine employees. They may, however, take advantage from the fact that there is a difference between their objectively existing organizational IT-Capability and applicants’ subjective perceptions of this IT-Capability. As these two issues may fundamentally differ, companies can (to some extent) shape job seekers’ perceptions of their IT-Capability by providing appropriate information [12]. For example, previous research indicated that the pure amount and specificity of IT-related information may positively influence job seekers’ perception development [16].

As the study is an exploratory approach to provide first insights into how *Perceived Organizational IT-Capability* affects job seekers’ *Intention to Apply* and IT-affine applicants’ self-selection behavior, it has a few **limitations** as well:

First, the study focusses on the perception of organizational IT-Capability. The perception of an organization’s IT-capability, however, is only one piece of the puzzle to fully understand job seekers’ application intentions. Future research should extend this research and examine – in a comprehensive view – how different drivers of

intention to apply interact and if their influence depends on the individual characteristics of a job seeker.

Second, the focus of this study was on advanced students who stated to possibly apply for a job within the next twelve months. As life-circumstances and presumed job opportunities may be different for more experienced job seekers, this study needs to be repeated with a respective sample to investigate parallels and deviations.

Finally, this study bases on hypothetical job ads without giving any 'hard' facts about the respective organizations' IT-Capabilities. It focusses on 'pure' perceptions and questions these perceptions and the resulting behavioral intentions at a single point in time. Ehrhart and Ziegert [12], however, pointed out that the attraction to an organization is a dynamic process. Once attracted by an organization, job seekers are likely to seek additional information to support or adjust their original evaluation [12]. This multi-stage process may gradually diminish the relevance of the job ad information in a real-world scenario.

Appendix

The following job and company descriptions were provided in the study:

The following section provides four extracts of job ads each announcing a job of an internal IT-project manager in a medium-sized manufacturing company with approx. 3000 employees. The standard starting salary is 60,000 Euros. The job profile is characterized as follows for all job ads:

IT-Project Manager

As a project manager you are responsible for the successful execution of our internal IT-Projects. You serve as an interface between management and software developer and take responsibility for the further development of our internal IT-Landscape. You are particularly responsible for the steering of the projects with regard to defined objectives, the implementation of development processes, as well as the alignment of IT-Projects and the company's business strategy.

The job is announced by four different companies which differ with regard to their company description. The four companies provide the following information in their job ads:

Company A:

We value Information Technology as a foundation of an efficient management and the continuous evolution of our company. We pay special attention to benefit from the opportunities of Information Technology to continuously develop our business value. We pursue a clear IT-strategy to reach our goals. Our IT team keeps its finger on the pulse by applying agile methods and the latest technologies. We see our strength particularly in the area of data management and mobile applications. We continuously seek new ways to develop and deploy our IT-landscape even more effective.

Company B:

As a medium-sized manufacturing company, we traditionally focus on the sector of classical engineering. As Information Technology is continuously gaining influence on the efficient organization of our internal processes as well as on our supply chain, we aim at continuously developing our rather traditional IT-landscape. We are looking for a creative employee to develop and implement proper IT-solutions and encourage innovative suggestions with regard to flexible IT-architectures and data structures.

Company C:

We are a regionally rooted company with a long tradition in the manufacturing industry. We combine tradition with the innovative opportunities of Information Technology. We particularly focus on the storage and usage of data to support our supply chain (e.g., Shared Data Base) and as a basis of interconnected ERP-Systems. Our special concern is to view IT as an integrative part of our business strategy and to identify and efficiently deploy economically viable IT projects. As we are continuously looking for new ways, we provide an open and supportive environment for new ideas.

Company D:

Our company bundles the know-how from purchasing, logistics, and supply-chain management in interdisciplinary teams aiming at an efficient manufacturing of our products. In this context, Information Technology is an important component to develop this efficiency. We focus on the cross-linking of business processes, data bases and information systems and are already applying agile methods of process and project management. We are open-minded towards innovative, data-driven extensions of our existing business models and strive for further optimizations of our supply chain processes.

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