



# Career Change of Young Talent and the Influence of Knowledge Transfer on Vocational Commitment: a Study of Hospitality Apprentices in Bavaria (Germany)

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## Abstract

Career change of young talent aggravates human resource shortages in various industries and the analysis of vocational commitment during the educational phase becomes paramount. Knowledge transfer modes and dynamics in the education of young professionals can influence their vocation or “calling” in the sector they are specialising for. With the background of the knowledge-based view, the goal of this study is to identify knowledge transfer-related aspects of education that exert a relevant influence on apprentices’ vocational commitment. The findings of the study of 331 hospitality apprentices in Bavaria, Germany, reveal that both academic sources and firm sources in the apprenticeship-based, also called dual, educational system affect the vocational commitment of apprentices. Specifically, the satisfaction with the training in the educational centre, the existence of organisational mentorship, and a personalised training system in the firm significantly affect vocational commitment after the educational stage. Consequently, educators along with mentors and managers in the partner firms can help enhance their students’ vocational commitment and potentially decrease their likelihood of leaving a sector.

**Keywords** Career change · Vocational commitment · Knowledge transfer · Young talent · Apprenticeship

## Introduction

As labour shortages in a range of professions create increasing career instability, understanding the relationship between vocational commitment and career change has become crucial for both organisations and employees (Kondratuk et al., 2004).

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Changes in jobs as well as in careers have become an accepted and necessary part of modern career trajectories (e.g., Hall & Moss, 1998), and Carless and Arnup (2011) find that younger individuals are more likely to change occupations than older ones. As skilled and gifted employees leaving an industry create a deficit of talent as well as a threat to a sustainable employment in the industry (Chang & Busser, 2020), the study of the dynamic evolution of their vocation becomes relevant.

Before entering professional life, many students opt for vocational training and education (Colley et al., 2003) since it is expected to smoothen school-to-work transitions by transmitting technical skills and knowledge to foster behavioural competence for the later employment. However, dropouts in upper secondary education have been an alarming phenomenon in Europe and other parts of the Western world (Bruin & Ohna, 2013). In addition, many graduates and school leavers change their career (e.g., Wolbers, 2003) and they do not even seek a job in the industry they have been specializing for.

In this line, apprentices' career changes after having completed their apprenticeship programme are often caused by a reduction or lack of vocation or 'calling' to start a career in the sector they originally wanted to work in. Basler and Kriesi (2019) defend the role of the educational context on the formation of occupational vocation. On the other hand, practical work experience (e.g., within the scope of internships) might leave a negative impression to further pursue a career in the respective industry. Combining both ideas, the dynamics and educational processes of training programmes in vocational schooling have an impact on young talent's vocational commitment.

Prior research on vocational commitment in an educational context has been rather devoted to analysing commitment to a particular academic institution (e.g., DeShields et al., 2005), to students' commitment to career choices and career expectations during their undergraduate degrees (e.g., Chuang et al., 2007) or to self-commitment in the course of internships (e.g., Chen & Shen, 2012). Apart from some studies on vocational identity of apprentices (e.g., Chan, 2019; Kirchknopf, 2020), the specific role of commitment in the apprenticeship-based education has scarcely been addressed. Due to the worldwide trend to extend workplace learning also in higher education, the study of commitment in vocational training is supposed to provide valuable hints for a future-oriented organisation of both educational pathways. What is more, no developed line of research about career changes by students has been found. McGinley et al. (2014) highlight that the lack of a thorough understanding of career change demonstrates the need for studies to identify why individuals are choosing alternate careers.

Education is a guided knowledge construction process through which some individuals (e.g., teachers and mentors) help others (i.e., students and apprentices) to develop their knowledge (Mercer, 1995). Because of education's close linkage to knowledge and its transfer, the knowledge-based view forms the underlying theoretical concept of this study. The knowledge-based view is a proven theoretical perspective from the management field that provides understanding, insights and applications for a variety of disciplines including human resources, organisational behaviour, management information systems and innovation (Bontis, 2001). As research on entrepreneurship has shown (e.g., Arranz et al., 2017), knowledge-related

factors of education influence the level of vocation and future work decisions. Young (2013) defends the usefulness of a knowledge-based approach to understand certain aspects of education. García-Almeida and Klassen (2017) state that the knowledge-based view is a theoretical perspective with a remarkable capacity for understanding and studying a great many organisational processes and outcomes. In that line, the knowledge-based perspective has been a useful approach to analyse dynamics of interest in the educational field (e.g., Lucas, 2007; Wenden, 1995).

According to Wringe (2009) and Becheikh et al. (2010), knowledge transfer is a central element in education and a major concern in improving educational practices. Knowledge transfer describes the process through which knowledge that has been constructed by an individual in one situation applies to another situation (Singley & Anderson, 1989). This definition of transfer as applying knowledge from one situation to another similar situation has been extended to go beyond similarities and a one-way transition, especially in the context of vocational education as Kilbrink et al. (2018) outline. These authors address transfer as building further on previous experiences in new situations in the framework of an ongoing learning process taking place in different learning arenas in vocational education. The basic relationship between knowledge transfer and vocational commitment stems from the idea that vocation is affected by learning. As the student progresses in his/her educational training, there are many knowledge-related elements that can enhance or weaken his/her vocation. Thus, the academic literature addresses and hints on several knowledge transfer-related factors or processes that can act as potential determinants of the loss or enhancement of vocational commitment, though in an isolated way. Attempting to bridge the research gap on apprentices' career decisions that prevent them from leaving the industry they are specialising for from the knowledge-based view, the goal of this work is the identification of knowledge transfer-related aspects of vocational education that exert a relevant influence on apprentices' vocational commitment as a prerequisite of reducing students'/apprentices' career change intentions.

In order to meet that goal, the German apprenticeship-based educational system, also known as dual education, provides a relevant context for this research due to its dual and solidly structured nature. Sullivan and Al Ariss (2021) lately articulated a need for studying the impact of highly structured educational systems such as the German one upon the process of career transition decision-making. The German-speaking European countries are renowned for their apprenticeship-based educational systems that attach equal value to school-based and workplace learning (Kirchknopf, 2020). However, in numerous labour-intensive industries, such as hospitality, construction or health care, some students/apprentices are changing their career and leaving the industry they are specialising for after completing their secondary education, even before obtaining their first formal employment contract as professional staff.

In the next two sections, the theoretical foundations of the paper are addressed by discussing vocational commitment in the dual vocational education, and by identifying knowledge transfer factors with a potential impact on apprentices' vocational commitment. After that section the methodology of the empirical study is explained and its results are presented and discussed. The last section addresses the conclusions of the work.

## Career Change and the Development of Vocational Commitment in the Dual Vocational Education

The term ‘career change’ may be defined as a worker’s change of employer in order to start a new job in either a different industry or occupation from the one s/he was previously employed in (Carrillo-Tudela et al., 2016). Career changes often yield personal growth or advancement and represent a part of the experience through which individuals get to know more about themselves in their vocational being (Higgins, 2001; Gomes & Teixeira, 2000). In this context, adolescents typically seek to transition upward, either within or across organisations (Sullivan & Al Ariss, 2021). While career changes within a sector may be very positive not only for individuals but also for firms and the whole industry, if they result in more motivated employees and managers, career changes that imply leaving the sector can dramatically increase its human resource problems.

Higher rates of career changes may be found among young professionals who are still shaping their vocational identities (Bieger et al., 2005; Carless & Arnup, 2011), even if they do not yet have their first formal job contract after their education phase. The educational phase is assumed to be related to the decision to leave the industry to a certain extent. Expectations in terms of compensation, work-life balance and working conditions sometimes are not shaped adequately by educational institutions. Moreover, student learning in workplaces in the context of vocational education is often unguided (Achtenhagen & Grubb, 2001) which may result in disorientation, lacking commitment and eventually career change. Apart from frustration and wasted periods of time, direct replacement and sunk costs in terms of unavailing investment in training on the educational level also cause considerable financial damage (Rowley & Purcell, 2001).

Career changes due to controllable reasons are associated with the reduction or lack of vocational commitment. Vocational commitment is strongly related to occupational turnover intention (Meyer et al., 1993). However, for young adults who have just earned a professional qualification or degree, vocational commitment could be a better predictor of career change in the long term than just “sector turnover” or decision to stay right after the educational phase. External pressures or additional motivations (e.g., parents’ opinions, need for independence and money) could make them stay in the industry in the short term. Consequently, the analysis of the occupational commitment of young workers, who are just at the beginning of their careers, along with the identification of factors that diminish it, are strategic aspects for any sector with human resource shortages (Kuslivan et al., 2010).

Based on Lee et al. (2000), vocational commitment can be defined as a psychological link between a person and his/her current or future occupation that is based on an affective reaction to that occupation, and desire of staying in that field. That definition refers to not only workers but also students or individuals in their educational training, and it comprises an identity and psychological link to the field of work/study as the individual feels part of it and has clarity about it, along with an idea of satisfaction and determination of staying in the same profession/field in the future. The more someone identifies with their occupation (or field of study) and

the more positive feelings they have about it, the higher their vocational commitment (Blau, 2003). Vocational commitment is initiated by an individual's choice of vocation which is perceived to fit his/her self-concept. In order to follow the selected vocation, and especially with initial decisions, the individual invests personal resources such as time, energy, and occasionally financial resources.

Basler and Kriesi (2019) outline that the formation of occupational aspirations is an important developmental task during adolescence. In that line, aspirations are an important predictor of occupational attainment in adulthood and are connected with the vocational commitment towards a sector. According to Yang and Dong (2013), education affects vocation. Thus, the first stages of vocational commitment may be shaped during the time of formal education, especially in university programmes and vocational education that are supposed to present solid knowledge to define and/or reinforce the career decision. Consequently, the educational context and its structure is of particular relevance to the formation of occupational status aspirations (Basler & Kriesi, 2019).

For Basler and Kriesi (2019), the level and development of adolescents' occupational status aspirations are closely linked to adolescents' educational pathways in secondary education. Vocational education is a key piece in the educational system for various industries. During vocational education, students/apprentices evolve their professional identity by acquiring and integrating knowledge, skills and attitudes (Achtenhagen & Grubb, 2001; Baartman & De Bruijn, 2011). In order to do so, vocational schools and workplaces are seen as two important learning contexts because apprentices gain experience in authentic learning environments (Gulikers et al., 2008). Regarding students' learning processes in vocational education, learning styles and knowledge construction processes are supposed to differ between the two major learning environments, i.e., vocational schools and workplaces (Schaap et al., 2012).

For Billett (2002), the workplace provides a relevant learning environment to develop vocational knowledge. Workplace learning research suggests that it is highly contextual and social (Marsick et al., 2017). In the workplace, students mainly observe and listen to experienced colleagues and subsequently imitate their behaviour (Aarkrog, 2005). Billett (2006) along with Rintala and Nokelainen (2020) emphasise that workplace learning can be characterised by co-participation and an interplay between what opportunities are given and how learners are able to engage with the opportunities. Based on recent research, Marsick et al. (2017) view workplace as a learning environment with a high degree of dynamic complexity in multiple levels and domains. Learning often is less intentional and planned but more contextual and collaborative than in school (Tynjälä, 2008). Also, learning in workplaces often starts with relating new information to prior knowledge (Boshuizen et al., 2003). In the context of workplace learning, Mikkonen et al. (2017) observe that the guidance provided by the members of communities of practice opens up opportunities for learners to participate in collective practices by gradually assuming more responsibility and more demanding tasks as their skills develop based on their self-regulation. Workplace learning is considered an effective strategy for the development of vocation (Poortman et al., 2014).

The German vocational system, known as the dual system of education and widely used in Austria and Switzerland, is organised primarily as an apprenticeship system and attaches equal value to school-based and workplace learning. Apprentices work as professionals in a firm while they learn in school for one or two days a week (Achtenhagen & Grubb, 2001). Firm-provided, on-the-job training is combined with state-provided, school-based education (Dustmann & Schönberg, 2012). This dual system plays a far more significant role in preparing young adults for their professional life in Germany than in most European countries where general academic education prevails (Kirchknopf, 2020). The characteristics of the dual system of apprenticeship enable to observe the development of vocational commitment of students preparing their ultimate access to the industry they are specialising for.

### **Determinants of Vocational Commitment From a Knowledge Transfer Approach of the Apprenticeship-Based Educational System**

The knowledge-based view provides a relevant perspective to analyse business processes in various disciplines (Bontis, 2001). Several knowledge dynamics and processes shed light on different phenomena in the business world. In the business context, knowledge can be defined as “information that is relevant, actionable, and based at least partially on experience” (Leonard & Sensiper, 1998, p. 113). For Pinho et al. (2012), knowledge is a valuable intangible resource that should be managed dynamically by any organisation seeking to gain competitive advantages. In that sense, the processes of knowledge acquisition, creation, sharing and transfer are paramount for an effective knowledge management.

Knowledge transfer is relevant in education (Becheikh et al., 2010; Wringe, 2009). Shariq (1999) defines the knowledge transfer process as a human-to-human process that is usually interactive and dynamic, resulting in the construction of knowledge during the process due to the inherent changes. For García-Almeida and Bolívar-Cruz (2020), knowledge transfer refers to the mobilisations of knowledge from one or several sources to one or several recipients that are expected to have constructed the knowledge after the transfer. It is considered one of the most important dimensions in the knowledge-based view due to its increasing theoretical and practical interest, though its study is traditionally included in the wider knowledge-based conceptual umbrella (Anatan, 2015; Santoro & Bierly, 2006). Moreover, knowledge transfer is the core of the school-enterprise cooperation in vocational education (Tan & Tang, 2010).

Initially, many young individuals develop some attraction towards a certain profession (i.e., ‘initial vocation’) based on an idyllic, blurred image of this profession, or they just go for a certain programme with no predefined clear vocation. In those specialised educational programmes, they are exposed to formal and informal notions about their potential future jobs in the respective vocational path via knowledge transfer processes. For Yam (2004), formal knowledge is regarded as the central characteristic of professionalisation. In the context of vocational behaviour, Ng et al. (2006) relate the acquisition of knowledge to an individual’s career. Thus, these authors

indicate that the construction of knowledge and learning affect the subjective evaluations of careers. Thereby, students get into a better position to assess if the profession really fits their preferred career in life. This, in turn, affects their vocational commitment. Vocation and vocational commitment, therefore, can be developed when some knowledge inputs are received or internalised (i.e., when knowledge gets transferred). In that line, knowledge transfer from different sources could contribute to define an individual's vocational commitment. This has been proved in the context of organisational commitment, where participation in knowledge transfer activities seems to be related to commitment attitudes (e.g., Hislop, 2003).

In vocational education, knowledge transfer processes can affect the student's vocation due to the characteristics and quality of the educational-centre-based learning and of the workplace learning. After reviewing the literature on knowledge transfer, several transfer-related factors or processes have been identified as potential determinants of vocational commitment. Thus, knowledge transfer becomes the central guide and coherence framework for addressing aspects in the literature detailing factors with a potential influence on vocational commitment. In the remaining part of this section, those factors are presented and their potential relationship with vocational commitment is discussed.

### **Applied Knowledge Orientation of the Prior Educational Stage**

In the knowledge transfer field, absorptive capacity plays an important role in terms of acquiring, constructing, and applying new knowledge. The relevance and usefulness of previously constructed knowledge depend on the students' ability to identify, assimilate and apply this knowledge to the professional setting, which can be referred to as their absorptive capacity (Cohen & Levinthal, 1990; Tho, 2017). In this context, the educational background of students in vocational education, who are expected to construct specific job-related knowledge, is assumed to be crucial. Applied or vocational-oriented learning methods in the prior educational stage could enhance a student's prior knowledge regarding a specific occupation and, hence, facilitate their integration into the working environment (Bottoms et al., 1992), along with their motivation.

The access to vocational education in many countries can be done with more theoretical or more applied educational background. The German secondary education system offers three different kinds of schools: *Mittelschule*, *Realschule* and *Gymnasium*, and students in any of these three options can access vocational education at a later stage. Whereas in *Gymnasium* students are prepared for access to higher education institutions (Schneider, 2008) with a very strong emphasis on theoretical knowledge, teaching in *Mittelschule* and *Realschule* is more applied. Education in *Mittelschule* is especially aimed at basic general education and a practical preparation for life and work (Reissig & Gaupp, 2007). Teaching in *Realschule* is meant to convey an extended basic education and is supposed to prepare students for vocational training in trade, technical and administrative professions. In that line, the applied knowledge in prior stages of education could make possible that students in vocational

education understand better and are more interested in the industry knowledge they are presented, and it could keep or increase their vocation. The results of a review on students' learning processes in vocational education by Schaap et al. (2012) with regards to the integration of knowledge underpin this assumption as vocational students' learning often starts with conceptualising and relating new information to their prior knowledge. This discussion leads to the presentation of the first research hypothesis of this work.

**Hypothesis 1.** The apprentice's applied academic background positively influences his/her vocational commitment.

### **Training in the Educational Centre**

Meaningful learning experiences are an essential key to student retention (Roberts & Styron, 2010). The concept of student satisfaction has internationally been a much-observed topic over the last decades. Satisfaction in general occurs when perceived performance meets or exceeds a person's expectations (e.g., Letcher & Neves, 2010). Hearn (1987) hypothesised that satisfaction with academic experiences was particularly important in affecting aspirations and plans; this author empirically found that satisfaction with faculty knowledgeability influenced students' aspirations and plans. The poor quality of educational centres is also cited as one of the reasons why few South African youths manage to successfully enter employment or tertiary education and training once they have left the secondary schooling system (van Broekhuizen, 2013). Therefore, making efforts aiming at a satisfaction level of vocational students as high as possible seems to be constructive in terms of early talent retention in the industry they are specialising for. Letcher and Neves (2010) found that student satisfaction has a strong positive influence on student loyalty and on institution reputation. Teachers can be inspiring, the discovery of traditional operational and cutting-edge topics in a sector can be gratifying, the academic organisation and selection of the company for the apprenticeship can be an appealing introduction to the pragmatic view of the sector, and social relationships with fellow students can generate thrilling career prospects. All those factors are the basis of satisfaction with the training in the educational centre, but the special role of the teaching staff can be arguably the most important factor in the centre due to the direct interaction with the students and could be associated with the student's vocational commitment.

**Hypothesis 2.** The apprentice's satisfaction with the training in the educational centre positively influences his/her vocational commitment.

### **Mentorship in the Firm**

Mentoring has been credited with positive impacts across various scholarly disciplines as well as industry sectors. Although there seems to be a lack of consensus in the literature regarding the definition of mentoring (Ensher et al., 2001), accordance can be found in the key points of the concept: An experienced individual, the



mentor, guides, advises and counsels a less experienced individual, namely the protégé. The resulting interpersonal exchange between mentor and protégé aims at an advancement of the latter's career (Kram, 1988). Deploying mentoring as an impactful activity in terms of knowledge transfer (Kram & Hall, 1996) as well as in terms of protégés' motivation and enhancement of self-competence is assumed to address the subjective aspects of career success. The transfer of critical or tacit knowledge from mentor to mentee is a particularly important function of mentoring programmes (Stromei, 2000), and it also contributes to a stronger identification with the company (Ensher et al., 2001).

In some cases, and as Coll and Zegwaard (2006) indicate, the trainee is assigned to a member of staff who acts as a mentor with the purpose of providing a comprehensive training experience. The trainee gets first-hand information of mentors who can act as role models for the future. Resolution of doubts and questions, direct and fast access to information about industry jobs and tasks, and personal advice and feedback about a future job and career in a sector are expected to be provided by mentors in face-to-face conversations. In line with the findings of Ragins and Kram (2007) that mentored individuals had greater intentions to stay with their current organisation than did non-mentored individuals, an increased likelihood to stay in an industry is assumed if mentors succeed in socializing, promoting and providing apprentices with knowledge and job perspectives. This is the basis for the third hypothesis.

**Hypothesis 3.** The existence of mentorship during the workplace learning of the apprenticeship positively influences the apprentice's vocational commitment.

### Training Possibilities in the Firm

Organisations that train their employees overall have better outcomes than those that do not (Madera et al., 2017). Nonetheless, there are many companies not offering any training or development possibilities to their workforce due to the costs or even the fear that some trained employees could leave the firm. However, individuals that are ambitious to seek career advancement might consider training possibilities in a firm as a strong reason not to leave that firm or to apply to this firm. Scott and Revis (2008) assume that students carefully choose companies and expect efforts to be made in order to develop and retain them. A vocation is supposed to be interesting and to provide students and young professionals with the opportunity to develop new skills (Walsh & Taylor, 2007).

Academic literature provides interesting insights for the analysis of training in firms for trainees. Though Beynon et al. (2015) defend that non-firm-specific training is less attractive and even has a negative impact upon both employee loyalty and their retention, apprentices could appreciate the value of general industry-related knowledge in the training activities since it could be relevant for other firms in the sector they are specialising for. In that same line, Walsh and Taylor (2007) found that the type of learning young professionals seek occurs through

actual work experience rather than through formal, isolated training activities. However, the organisational training system could be more general and prepare for other potential jobs that apprentices could get after the vocational education, increasing the value they assign to those activities. This discussion leads to the presentation of the fourth research hypothesis.

**Hypothesis 4.** The existence of training possibilities during the workplace learning of the apprenticeship positively influences the apprentice's vocational commitment.

### **Personalised System of Training in the Firm**

In order to maximize the benefits of organisational training, companies are urged to uncover the individual training needs of their employees and fit them into personalised training systems. Some firms open their personalised system of training to apprentices and interns based on their staff needs and positive evaluations of the interns' skills. As Kraiger (2003) argues, trainees should have sufficient understanding of their vocation to see how the tasks, knowledge, and skills covered in training are relevant to that vocation. In addition, trainees who show a lack of knowledge in certain tasks performed during the apprenticeship could be offered personalised training to improve their performance. Moreover, apprenticeship managers and mentors could translate trainees' ambiguous field preferences into identified training options, especially if there are hiring possibilities for those trainees or personal relationships have been developed.

Research shows that employees are more motivated and satisfied with their training when given the choice of what skill and knowledge gets trained (Cloutier et al., 2015) and when their preferred training method is used (Schmidt, 2007). Golubovskaya et al. (2019) indicate that leveraging the talent of each employee could enhance his/her engagement and retention. Overall, personalisation in the context of training allows for positioning young professionals in roles that best suit their capabilities by enabling them to become aware of their personal preferences and interests (Cunningham, 1999). This discussion leads to the presentation of the last hypothesis.

**Hypothesis 5.** The existence of a personalised system of training during the workplace learning of the apprenticeship positively influences the apprentice's vocational commitment.

In a graphical way, Fig. 1 describes the potential influence of the five aspects identified as determinants of the apprentice's vocational commitment in the dual educational system.

## **Method**

Data to test these research hypotheses were collected with a survey to hospitality apprentices in Bavaria (Germany).

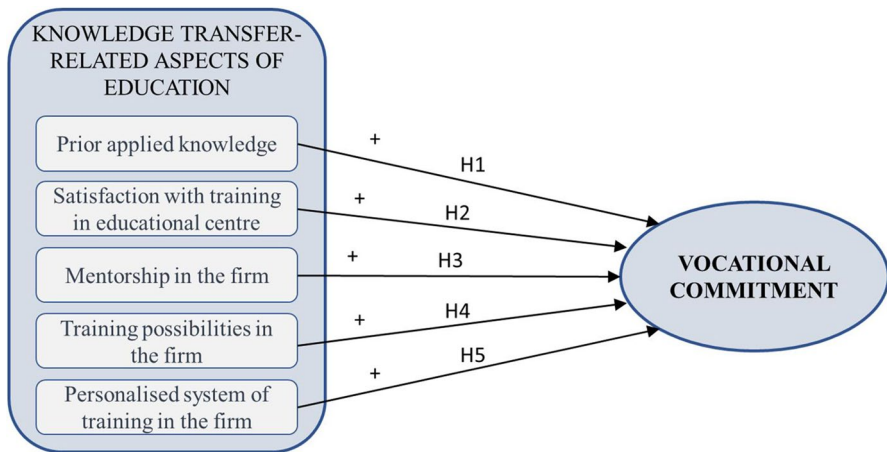


Fig. 1 Knowledge transfer-related factors affecting apprentices' vocational commitment

## Research Setting

The hospitality industry in developed countries has long faced problems regarding human resource attraction and retention (e.g., Richardson, 2010). The strong service and customer orientation of hospitality employees always made them highly attractive for other industries (Baum, 1995) which often results in career changes towards a professional path outside the sector. In his empirical study Richardson (2010) found that more than 50% of undergraduate tourism and hospitality students are considering careers outside the sector, and one third indicated that they would definitely not work in the industry after graduation. Moreover, Nachmias and Walmsley (2015) call for deeper empirical studies that shed light on how career decisions in the hospitality sector are actually taken.

The survey was conducted in Bavaria, the largest state in Germany. The dual system of vocational education in Bavaria has close connections with the hospitality industry, and for many years there has been a large number of apprentices from vocational schools in the sector in this region.

## Participants and Procedures

Regarding the population of the study, the number of apprentices studying hospitality professions in the dual vocational education system of Bavaria was first identified. In 2017, there were 9,552 apprentices in the hospitality sector. The majority of those apprentices were enrolled in the programme of hotel clerk (4,491), followed by 3,421 apprentices in the programme leading to become cook/chef (DEHOGA Bayern, 2017). The study focused on these two vocational programmes since they are the key professions offered in the hospitality section of the German dual education and taught in 27 vocational schools in the whole region. In order to ensure

that apprentices have had enough experience with the apprenticeship to be able to respond to the survey questions thoroughly, only second- and third-year apprentices were selected. Accordingly, the overall population size was 3,599 individuals. The Bavarian Hotel and Restaurant Association (DEHOGA Bayern) supported the study as independent research.

The questionnaire was prepared after a review of the academic literature and was evaluated by selected members of the Bavarian Hotel and Restaurant Association (including the managing director for vocational education) to ensure the adaptation and adequacy of the questions to respondents.

## Measures

The questionnaire included several items to measure the variables to test the research hypotheses. The dependent variable was measured with a five-point Likert scale and four items adapted from the work by McKay et al. (2007). Though the scale originally measured organisational commitment, the adaptation from the firm level to the industry one reflects the commitment to the sector, i.e., the vocational commitment to the hospitality industry. With regard to the independent variables, the applied knowledge orientation of the prior educational stage was measured with the access mode to the apprenticeship-based educational system. In this sense, a dichotomous variable was created to reflect on the one hand a positive value if the student has accessed vocational school after having completed either *Mittelschule* or *Realschule*; on the other hand, if the student accessed vocational school after having completed the more academic high school (*Gymnasium*), this dichotomous variable takes a value of zero. The satisfaction with the educational centre was measured with the six items of the 5-point Likert scale on good teaching by Byrne and Flood (2003). The remaining three independent variables were measured with single dichotomous variables asking for the presence/absence of the indicated features; thus existence of mentorship was measured with an item referring to “mentor support”; the existence of training possibilities in the firm was operationalised with the item “In my training company, there are training possibilities offered to apprentices”; and the existence of a personalised system of training in the firm was measured with the sentence “I have my own training plan at the training company, which is based on my development needs”. The questionnaire was prepared in German.

## Data Collection

The fieldwork comprised several activities. After obtaining permission by the responsible state ministry of Bavaria, the principals of all 27 vocational schools were contacted and asked to assign time during classes for the target group (apprentices of the professions hotel clerk and chef/cook in the second and third year of the programme) to fill the questionnaire. Information material on the study as well as standardised instructions for teachers were provided. The questionnaire was applied online, anonymously, and could be accessed either via QR-Code or link. The apprentices who participated answered the questionnaire during class through their mobile

devices or through computers provided by the school. The questionnaire was open for three weeks during the end of the school year (June/July). It took approximately between ten to 15 min to complete it. As a result of the fieldwork, 331 valid questionnaires were obtained. The adjusted response rate is 9%, and the margin of error is 5.13% at a confidence level of 0.95. Data were analysed using SPSS. The potential threat of common method bias was checked with Harman's single-factor test, and the result showed an acceptable value (23.9%, which is significantly lower than 50% of the total variance of the measures).

## Results and Discussion

Before reporting the results of the research hypotheses of this work, some descriptive data extracted from the sample are shown. There is a slight majority of female apprentices (54.2%), and the most frequent age range is the one integrated by individuals who are 18 and 19 years old. With regard to their professional training, most apprentices are enrolled in becoming hotel clerks (71%) compared to 29% as chefs/cooks, and the size of firms where they are employed tends to be relatively small, since 56% (143) were in firms with less than 51 employees.

The descriptive values of the items to measure the apprentices' vocational commitment are displayed in Table 1. The absolute values to describe the apprentices' patterns in the four items asked in a Likert scale format have been grouped in three categories: low level (values 1 and 2), medium level (value 3), and high level (values 4 and 5). In general, the apprentices show relatively high levels of vocational commitment to the hospitality sector, but with a clear exception: there are objective doubts as to recommending the sector as a place to work. In that sense, the most frequent category on the item of industry recommendation is the low level one (37%) topping the medium and high level ones (31.9% and 31.0%, respectively).

The analysis of hypothesis test required the preparation of variables that were measured with a scale of several items. Specifically, exploratory factor analyses were computed for the apprentice's vocational commitment (Table 2), and the satisfaction with training in the educational centre (Table 3). In both analyses, only one

**Table 1** Descriptive analysis of the apprentices' vocational commitment ( $N=318$ )

Item	Level			Mean	St. dev
	Low	Medium	High		
The hotel/restaurant sector inspires me to do my best work every day	18.8%	31.9%	49.3%	3.42	1.173
The hotel/restaurant sector motivates me to contribute more than is normally required to complete my work	23.3%	32.5%	44.2%	3.30	1.186
I would recommend the hotel/restaurant sector as a place to work	37.0%	31.9%	31.0%	2.92	1.247
I rate the hotel/restaurant sector highly as a place to work	16.5%	25.1%	58.5%	3.63	1.194

**Table 2** Factor analysis of the apprentice's vocational commitment

	<b>Vocational commitment</b>
<i>Number of factors extracted</i>	1
<i>Items</i>	
The hotel/restaurant sector inspires me to do my best work every day	0.841
The hotel/restaurant sector motivates me to contribute more than is normally required to complete my work	0.840
I would recommend the hotel/restaurant sector as a place to work	0.813
I rate the hotel/restaurant sector highly as a place to work	0.818
<i>Other characteristics of the analysis</i>	
% of explained variance	68.561
Eigenvalue:	2.742
KMO Index:	0,798
Bartlett's sphericity test (sig.)	551.582 (0.00)

factor was extracted. In both cases the KMO index and the Bartlett's sphericity test present acceptable outcomes.

A regression analysis was conducted to test the linear relationship between the apprentice's vocational commitment and the five independent variables that acted as its potential determinants stated in the theoretical framework. Three additional aspects were used in the equation as control variables: the apprentice's gender, his/her age, and whether s/he is doing his/her apprenticeship in a restaurant or not. Table 4 shows the main results of that analysis.

Four variables exert a significant influence on the apprentice's vocational commitment. The first one is his/her satisfaction with the training in the educational

**Table 3** Factor analysis of satisfaction with the training in the educational centre

	<b>Satisfaction with the training in the educational centre</b>
<i>Number of factors extracted</i>	1
<i>Items</i>	
The teaching staff of this course motivate me to do my best work	0.783
The staff put a lot of time into commenting on my work	0.830
The staff make a real effort to understand difficulties I might be having with my work	0.816
The teaching staff normally give me helpful feedback on how I was going	0.875
My teachers are extremely good at explaining things	0.861
The teaching staff work hard to make their subjects interesting	0.801
<i>Other characteristics of the analysis</i>	
% of explained variance	68.597
Eigenvalue:	4.116
KMO Index:	0.891
Bartlett's sphericity test (sig.)	1204.623 (0.00)

**Table 4** Multiple regression results with standardised estimates

VARIABLES	Vocational commitment Beta coefficient ( <i>t</i> signif.)
Applied knowledge orientation of the prior educational stage	-0.012 (0.855)
Satisfaction with the training in the educational centre	0.194 (0.001)**
Existence of mentorship in the firm	0.164 (0.006)**
Training possibilities in the firm	0.004 (0.957)
Personalised system of training in the firm	0.172 (0.009)**
Gender (male)	0.117 (0.051)*
Age	0.005 (0.938)
Firm type (rest.)	-0.057 (0.340)
$R^2$	0.120
Adjusted $R^2$	0.094
$F$	4.616 (0.000)**

\*  $p < 0.10$ ; \*\*  $p < 0.01$

centre, and consequently Hypothesis 2 can be accepted. The relevance of the scholastic part in the apprenticeship-based educational system is then highlighted. The contact with the teachers who provide insights, trends, contextual frameworks and techniques about the academic fields of the sector to which the apprentice is initially attracted can be paramount to make his/her vocation more solid and see him-/herself in a future career in the industry. In line with Richardson and Radloff (2015), this confirms the high relevance of the teaching staff to the student's engagement in the fields that s/he is studying in. Also Forster-Heinzer (2020) highlights the impact trainers and teachers in vocational education have on their apprentices' identification processes.

The professional part of the apprenticeship-based educational system also influences the apprentice's vocational commitment. Specifically, two factors related to the role of the work placement and the employer are significant. The first factor is the existence of a mentor or professional individual in the organisation who will guide the student in the learning process at the workplace. The significance of this variable in the regression analysis allows for accepting the third research hypothesis (Hypothesis 3) of this work. Mentors inculcate practical skills and influence the student's commitment (Ogbuanya & Chukwuedo, 2017). In this sense, apprentices can reinforce their career decision in situations where they do not feel left out and lost in a professional setting. The mentor's intrinsic motivation about the job could serve as a passion driver for some aspects of the professional career.

The second relevant aspect in the professional setting of the apprentice is the personalised system of training in the firm. Thus, the fifth hypothesis (Hypothesis 5) can be accepted too. Personalisation of training in the firm tends to avoid redundant knowledge and tasks/activities that are of no interest for the apprentices. Personalisation interventions elicit interest in the addressed aspects through the development of feelings of positive affect and enjoyment (Walkington & Bernacki, 2014). Without a

personalisation of the training system, the apprentice would face learning difficulties and/or general or undesired tasks which decrease his/her satisfaction in the professional career and vocation.

Two hypotheses have not been supported. They refer to the potential influence of the applied knowledge orientation of the prior educational stage (Hypothesis 1) and to general training possibilities in the firm (Hypothesis 4). Regarding the applied knowledge orientation of the prior educational stage, apprentices with a lack of prior sectorial knowledge could keep up due to the teaching methods in school, and the elements of learning personalisation in the firm commented above. Moreover, the longer period of industry preparation could act as a backlash for some trainees due to the redundancy, routine or even boredom in which the apprenticeship-based system would place them.

The existence of a formalised training programme in the firm does not tend to positively influence the apprentice's vocational commitment either. The unnecessary or useless knowledge offered in the courses, seminars, or other training activities organised in or by the firm in a general way could explain the lack of effect of this variable. The key idea underlying that explanation would lie in the assumption that those general training opportunities do not fit the career prospects or orientations that the apprentice keeps in mind, or at least that the apprentice does not perceive them as directly connected to his/her aspirations in the sector.

The results of the multiple regression analysis also show that the apprentice's gender influences the vocational commitment: male apprentices tend to be more committed to the career in the sector than female ones. This influence is lower than the three elements commented above and can be subject to some generational aspects and owing to specific temporary perceptions of the sector and the perks and limitations that its jobs have got. A potential explanation is that female apprentices have wider career preferences in the tourism sector which go beyond interests in hospitality operations, opposed to male apprentices who prefer specific career paths, as Chuang et al. (2007) find. Thus, many female apprentices could have preferences in the tourism sector that are not related to food and beverage activities, for example, so the vocational behaviour in the hospitality career would decrease though they would be developing careers in other sections of the general tourism sector.

## Conclusion

This work has analysed knowledge transfer processes that can have a relevant impact on the apprentices' vocational commitment and on the reduction of cases of career change. Due to the failed investments in the educational system and the level of frustration and time waste in many students' lives caused by cases of low vocational commitment, the identification of malleable factors that have a relevant impact on those career changes is necessary. The knowledge-based view is a theoretical framework that can be used to understand knowledge dynamics in many topics. Thus, regarding vocational commitment, the apprenticeship-based educational system is an adequate context to explore knowledge transfer processes since two main types of knowledge sources are used for the student's knowledge construction: academic sources and firm sources.



The empirical approach of this work has revealed that knowledge transfer processes in the educational system can have an impact on apprentices' career aspirations. Thus, both academic sources and firm sources influence the decision to stay in the initial sector that has attracted them. Specifically, the satisfaction with training in the educational centre, the existence of direct mentorship and a personalised corporate training system for the apprentice tend to be relevant to keep the vocational commitment towards the sector after the educational stage. These findings have academic and practical implications.

The academic implications of the results of this work are mainly related to the usefulness of the knowledge-based view to explore educational dynamics that affect students in their career path beyond the years spent in educational institutions. Thus, regarding the study of vocational commitment, the modes and intensity of knowledge transfer in the education of young professionals can influence their decision to stay in the sector they originally chose. The identification of specific, relevant knowledge transfer aspects shed light on the evolution of vocational commitment.

From a practical perspective, the results of this work also allow for issuing some recommendations to increase the vocational commitment of students in the apprenticeship-based educational system. Vocational schools should formulate a knowledge strategy to align their knowledge resources and capabilities to their strategy (Ferreira et al., 2018). Regarding the satisfaction with training in the educational centre, the decision makers of vocational education must be open to analyse trends and new aspects to be included in the curricula. Moreover, quality evaluation programmes should detect teachers' pedagogical needs, and training possibilities should be offered subsequently. At the same time, Richardson and Radloff (2015) indicate that lecturers should identify students' interests and training needs. Consequently, flexibility to adapt the course topics and training methods in the courses should be also granted to teachers at vocational schools.

The firm system as a complement of the education in the apprenticeship-based educational system must be carefully designed as well. One of the strategic decisions is the configuration of the network of the companies to be selected. Firms with a genuine interest to collaborate and with a disposition to assign mentors to the students should be the basis of that network. A useful tool would be the inclusion of required feedback about the mentor and the personalisation of training in the student reports about their learning experience in the companies. Participating firms could emphasise the key role of the mentor and provide flexibility in the activities to be performed by apprentices based on their interests. Some of these ideas could be also applied in the design of internship programmes of many other educational centres, including universities, especially in the context of the emerging trend to extend firm-based learning in the course of higher education.

As the empirical approach of this work has been the hospitality sector, the results also pointed to the higher vocational commitment of male apprentices towards the industry. In that sense, special attention to the needs of female apprentices should be paid to in this context, perhaps in the provision of an academic advisor to clarify career paths.

Nevertheless, there are some shortcomings in this study that are worth being mentioned. Firstly, the use of a questionnaire to collect data on the variables of the work may limit the understanding of the phenomena studied. In that line, the use of a qualitative approach could complement the results of this study, especially with regard to additional aspects of knowledge variables such as the apprentice's prior knowledge. Secondly, regarding measurement of vocational commitment there might arise the issue of artificially inflated scale reliability as two items are closely connected; however, as this scale has originally been adapted from McKay et al. (2007) who in turn adapted it from Mowday et al. (1979) and both works are renowned in their specific fields, its use could be considered acceptable. A third limitation is the selection of the hospitality education as the basis for the empirical approach, which limits the result generalisation to other vocational fields. Generalisation is also hampered by the fact that the study was conducted among German apprentices only; the results might be different in other countries in terms of e.g., organisational culture or market dynamics. Thus, the geographical extrapolation of the results must be done with caution. Moreover, the specific characteristics of the dual apprenticeship system hamper the application of the conclusions to all programmes of vocational education.

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## Declarations

**Conflicts of Interest** None.

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