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Typical Career Pathways of Academically and Vocationally Qualified Employees - Competition and/or Complementarity?

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Abstract

The relationship between higher vocational certificates and higher education certificates – in particular with regard to their usability in the job market – has been discussed in the course of the higher education structural reform and in the context of the equivalence of higher education and vocational qualifications as stipulated in the German Qualifications Frameworks. This paper presents the concept and first conclusions of a project aiming to trace typical qualification sequences and career paths in selected industry sectors (commerce, banking, logistics, tourism) and identifies competitive situations. The usability of selected qualifications in the job market (for example, employment status, position, income) is evaluated from the companies' and the individuals' perspective by using a combination of qualitative and quantitative methods. The main goal of the project results is the future development of qualification profiles for vocational education and training which are perceived by companies and by individuals as an attractive and equivalent alternative to academic education.

Keywords

higher VET; academic qualifications; labour market; equivalence; career pathways

5 Introduction

The buzzwords of the (new) "educational expansion" or "academicisation" outline a continuing debate about a possible decrease of the relevance of vocational career paths. Current discussions are triggered by a shift of participation patterns from vocational training to higher education. This trend is reflected by a growing percentage of university students among school leavers with (higher) education qualifications. Between 2005 and 2015, the share of new entrants into university rose by 39 percent, while in the same period the number of entrants into dual vocational training on the legal basis of BBiG decreased by seven percent (Bundesinstitut für Berufsbildung, 2016; Dionisius & Illiger, 2015).

At the same time, the introduction of three-year Bachelor's degree programmes as part of the Bologna reform has increasingly raised the question of displacement and substitution effects

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between those with vocational and academic qualifications at the upper specialist level (cf. e.g. Weiß, 2009; Werner, Hollmann, & Schmidt, 2008). The underlying question, whether classical vocational education and training paths with initial vocational training and advanced further training are increasingly less sufficient to reach positions for upper skilled workers or middle management has been answered differently in previous studies. In addition to different methodological and branch specific approaches, one of the main reasons relates to database limitations with too small numbers on career paths of Bachelor graduates.

Hence, the current state of research is characterised by different and sometimes contradictory statements. It can be systematised according to different core theses to which the respective studies refer: competitive thesis, complementary thesis and convergence thesis. In the following section we present main research findings and contributions on academisation using this differentiation.

Competition Thesis

Under the generic term of the competition thesis we summarize contributions that assume increasing competition between vocationally and academically qualified persons as well as literature which identifies increasing indicators for substitution processes (Baethge, Kerst, Leszczensy, & Wieck, 2014; Baethge & Wolter, 2015; Bosch, 2016; Drexel, 2012; Weiß, 2009). Estimates vary here between a progressive process towards higher qualification, which could lead to a devaluation of initial and continuing vocational training qualifications and as a consequence to an erosion of the middle subject level. This so called polarisation thesis (Frey & Osborne, 2013), which is also known from the digitisation debate on "Industry 4.0", implies that between standardised, modularised work with low qualification requirements and highly qualified activity segments, work areas in intermediate subject positions break away due to an increasing need for higher qualifications. Although there is so far little empirical evidence for these scenarios of disruptive changes, a current study by Euler/Severing also assumes a tendency towards a high substitution potential between vocational training and academic study programmes, especially for commercial occupations (Euler & Severing 2017; p. 37 f.).

Complementarity Thesis

Particularly with regard to recruitment strategies of firms for vacancies for operative (management) specialists, a significant body of literature does not observe any fundamental change - despite of the introduction of Bachelor's degree programmes. Furthermore, there are still different areas of responsibility and activity: depending on the job-design, vacancies are more likely to be filled, either by professional or academically qualified employees (Bott, Helmrich, Reymers, & Schöngen, 2012; Hippach-Schneider, Weigel, Brown, & Gonon, 2013; Wünsche, 2011). However, even these studies do not rule out possible competitive situations that could develop in the labour market because of increasing numbers of Bachelor graduates over time.

An even clearer emphasis on complementarity and competitive relationships in the relationship between professional and academic career paths can be found in the studies by Krone and Mill (2014) and Neu, Elsholz, and Jaich (2017). According to these research findings, there are quite different constellations depending on the sector. From a perspective of changing competitive situations due to the emergence and growing relevance of dual study programmes, the empirical findings of Krone/Mill on the one hand strengthen the thesis of complementary employment segments in which entry positions and career paths of vocationally trained persons differ from regular Bachelor graduates and from graduates of dual study programmes. This applies in particular to the technical/commercial sector examined by the authors. On the other hand they observe competitive relationships for commercial occupations

in the financial sector, since, according to the authors, there is no separation of professional and academic career paths here (Krone & Mill, 2014, p. 57).

Convergence Thesis

Under the heading of the convergence thesis, publications are summarized which identify a growing overlap and permeability between vocational training and higher education on a systemic level (Severing & Teichler, 2013) and in this respect the emergence of hybrid training models (Euler, 2017). These contributions assume a growing sub-sector in the education system in which vocational and academic qualification paths are combined. In this regard, the growing mutual permeability between vocational and academic education segments is addressed (Wolter & Kerst, 2015).

However, a progressive development towards convergent areas of education that combines elements of vocational and academic training can already be seen in the growing relevance of dual study programmes. This applies not only to the growing number of dual degree programmes and dual students, which, in the field of initial training, more than doubled between 2006 and 2016, but also to the growing institutionalisation of providers of dual degree programmes, for which umbrella brands and umbrella associations are increasingly developing at the federal state level (Länderebene; Hofmann & König, 2017).

In addition to the presented state of research, this research project addresses the topic of academisation in a multifaceted way. Special attention will be paid not only to the selected sectors, which represent different areas of commercial professions, but also to the special exploitation context in order to obtain information on the design of regulated further training regulations.

6 Project aims and theoretical framework

One of the project aims is to achieve a better overall understanding of the extent, causes and concrete forms of academization in commercial professions. For this reason, three different analytic dimensions will be included and observed: First, the curricular dimension of a (possibly) changed educational landscape with growing overlaps between initial and continuing vocational education and training on the one hand and academic degree programmes with a stronger practical orientation on the other. In a second step, on an enterprise level, recruitment and training strategies are analysed in terms of possible competitive situations between occupationally and academically qualified employees. Finally, the dimension of individual educational and career decisions, which is considered particularly important in the current literature, is taken into account in the research approach.

In order to analyse these different dimensions of academization the theoretical framework of this research project includes the interaction of central actors as well as the respective structural constitutional contexts. Referring on Giddens (1984) theory of structuration it is assumed that companies as well as employees on the one hand refer to relevant structures of the educational system, the respective organisational structures and the individual socio-economic contexts (e.g. social origin). On the other hand, they also have the ability to change previous framework conditions in a mutual constitutional relationship, which in turn ultimately affect the educational system (and possible shifts in the educational landscape).

The interaction process between companies and employees is characterised by "signalling" and "screening". The concept of signalling refers to the core idea of Spence's signalling approach (Spence, 1973). According to Spence information asymmetries between different (labour) market actors are reduced by the "signalling" of not directly recognisable characteristics and abilities by the more informed interaction partner. Drawing on the screening concept of Stiglitz (1975), the less informed party reduces its lack of information using relevant screening criteria (e.g. performance tests). Drawing on these core theories and concepts our

theory model assumes that companies and individuals send out mutual signals of ability (employees) and attractiveness (companies). These signals in turn play a role in the selection of employees, but also in the choice of employers by the employees.

In their selection and decision-making processes, both actors - companies and employees - refer to structures of the education system, the respective labour market situation and relevant sector- and region-specific contexts. Building on the current state of research, the specific influence of company structures (company size, personnel structure, and personnel policy, work organisation, training and further training activities) on recruitment and deployment strategies at company level are taken into account. With regard to the educational and further training decisions of employees, the importance of career and further training aspirations is included in addition to the influence of social origin, which has often been the subject of research to date (Figure 1).

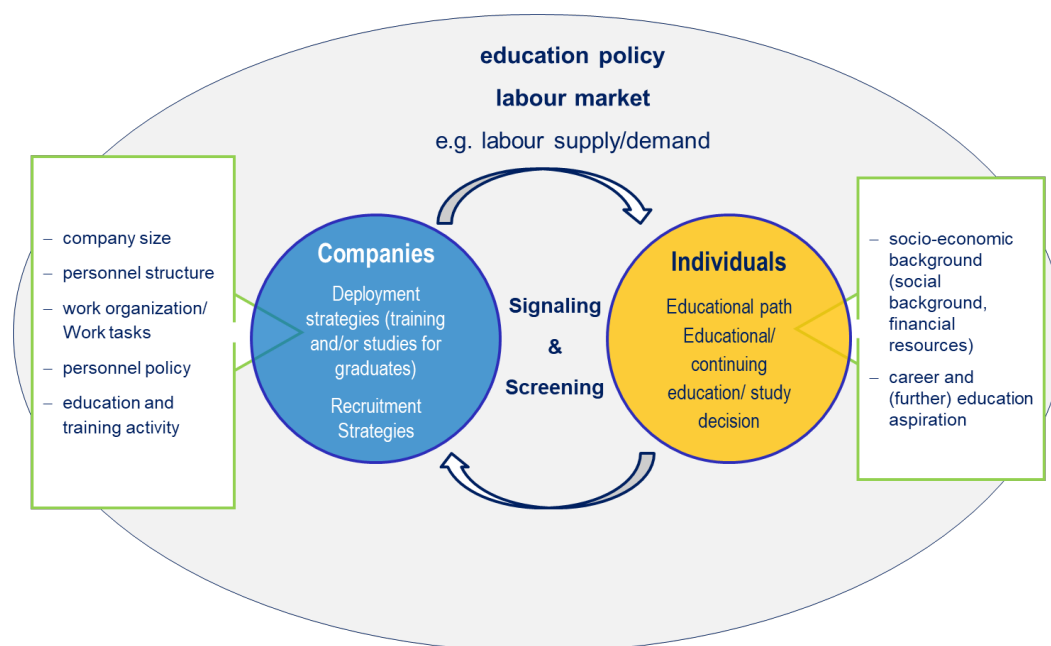


Figure 1 The signalling and screening process

7 Methodological approach

The research design comprises a mix of qualitative and quantitative methods of analysis and survey instruments. On the one hand, the different dimensions of the curricular framework conditions, entrepreneurial personnel recruitment, development and deployment strategies are to be captured as comprehensively as possible. In addition, the interaction relations between companies and individuals must be included in the analysis.

The combination of different methods also makes it possible to combine the advantages of the principle openness of qualitative research instruments for explorative information acquisition and pre-structuring of the field of investigation with the generalizability and reach advantages of standardized quantitative surveys.

Table 1 Overview on the methodological approach

Level of analysis	Research Method
Curricula	Comparative curricula analysis of selected advanced training regulations and BA/ MA study programs (GQR level 6 and 7)
Enterprise level	Semi-structured qualitative Interviews with HR managers Quantitative enterprise survey 2018, target person: HR manager or managing director; n=802; response rate: 40.8%
Employee level	Semi-structured qualitative: vocationally and academically qualified employees, DQR 6/7 BIBB/ BAuA Employment Survey 2012 und 2018 BIBB/ BAuA Employment follow up Survey 2019 (selected industries, n=1.111),

7.1 Curricula dimension

The method of document analysis is used to investigate curricular differences and similarities. The subject of this analysis are documents that form the basis of and describe vocational and academic qualifications, i.e. initial and in particular continuing vocational training regulations and the corresponding curricula in the area of academic qualifications. The reference point for a selection of the documents are the qualifications listed for the respective industries and differentiated according to the German Qualifications Framework (GQF) levels, with a special focus on level 6. Within the framework of the analysis, the documents are examined with regard to their formulations of objectives and descriptions of competences. The dimensions and descriptors of the GQF serve as reference values. In particular, the curriculum analysis aims to gain insights into the content of the vocational and academic qualifications examined as well as their reference points and degrees of coverage. Due to the large number of qualifications in the field of Bachelor and Master Programmes, an exemplary selection is necessary here. In the area of vocational education and training, all relevant curricula of the occupations with the highest number of examination candidates in the selected occupational areas were taken into account in the document analysis.

7.2 Company Dimension

The method of qualitative, semi-structured interviews is used to gain information and pre-structure the quantitative surveys in order to capture deeper motives and general contexts. This method on the one hand is characterized by the openness of qualitative interviews and, due to its lower degree of standardization, enables not only a more comprehensive gathering of information but also a better recording of the complexity of the individual case. The pre-structuring of the lead topics and lead questions, however, also allows a certain comparability between different interviews and a comparison between the respective industries. In addition to gaining information and a better understanding of meanings, qualitative interviews also make it possible to generate or further develop hypotheses.

The target persons of the semi-structured qualitative interviews are personnel managers, who provide detailed information on personnel development, recruitment and deployment strategies of senior specialists and middle managers at German Qualifications Framework level 6 (and partly 7). In each sector, companies were selected based on the sector structure. In addition to company size and the selection of different sector sub-segments, relevant criteria

included characteristics such as the range of services offered, the company organisation and the employee structure.

Based on the results of the case studies, a representative, standardized, quantitative enterprise survey was conducted. This survey served to confirm the qualitative results of the case studies empirically. The analysis unit consisted of companies out of the four focused industries. The survey was designed as a computer assisted telephone survey (CATI) of personnel managers or managing directors. The target group were nationwide companies with at least five employees, who had middle management level or employed upper-level specialists. For this purpose, a stratified random sample by industry and company size was drawn in order to map detailed differences between industries and company sizes. The survey includes 802 interviews with a response rate of 40.8%. The central topics of the survey covered questions on the companies' training and further training models, educational qualifications, recruitment and deployment strategies for senior specialists and middle managers, competence requirements and measures to cover competence as well as future personnel strategies with a view to the target group mentioned.

7.3 Employee Dimension

For the explorative acquisition of information and pre-structuring of the quantitative survey of the labour force, introductory qualitative, semi structured interviews were conducted. The target groups were professionally and academically qualified employees who were surveyed about their respective career paths, educational decisions, positions, areas of activity and deployment as well as their own assessment of the employability of their qualifications. These interviews allowed a detailed reconstruction of the respective educational pathways in order to capture the individual contexts and context factors for the respective educational decisions.

In addition, the interviews intend to reflect the employees' subjective perception of their employability and their competences acquired in the respective educational pathways. This concerns both the dimensions of qualification adequacy as well as position adequacy and income adequacy of the respective education with the current activity or position. For this purpose, 40-60-minute interviews were conducted with employed people who hold middle management positions and are professionally or academically qualified according to the research question.

A follow-up survey of the BIBB/BAuA survey of employees was conducted for the selected sectors in order to conduct a quantitative analysis of educational decisions and employment histories. The BIBB/BAuA surveys of employees are representative surveys of core employees in Germany. The employment survey offers the opportunity of carrying out follow-up surveys specifically groups of employees (those who have undergone further training, those working in the commercial sector) or certain topics (activities). 1,111 interviewees who had agreed to further participation were interviewed successfully in a follow up survey between May and August 2019.

8 First results

8.1 Curricula analysis

The results of the comparative curricular analysis still show target group-specific differences between further vocational education regulations and selected sector-specific Bachelor/Master programmes in the selected sectors, which are basically reflected in an overall stronger vocational and action-oriented orientation in regulated continuing education courses. However, a growing number of practice-oriented and specialised Bachelor and Master degree programmes in particular make overlapping areas visible. A direct comparison of the subject-specific contents reveals many similarities. With very few exceptions (e.g. further training to

become a certified business economist in accordance with the BBiG), the lack of international vocational competences in the current, regulated further training regulations for specific vocational areas is conspicuous. In comparison, the number of sector-related Bachelor's and Master's degree programmes with an international orientation has noticeably increased. While the number of students has risen in almost all relevant degree programmes, there are sector-specific differences in the relevance and (perceived) attractiveness of regulated continuing education programmes.

8.2 Company recruitment, training and continuing education strategies

The results of the qualitative and quantitative company surveys do not show the companies' general departure from the dual system of initial and continuing vocational training. Initial and further VET continue to play an important role in recruiting senior specialists and midlevel managers. The current 'status quo' of the surveyed companies' only shows academic degrees as a prerequisite for obtaining middle management positions for a small proportion of the companies.

At the same time, however, the range of different qualification paths has also expanded, with dual courses of study in particular gaining importance. In this respect, there are significant differences according to company size and sector. Large companies in particular pursue a multi-track strategy in which both vocational and academic education and training paths play a role. In addition to the use of traditional forms of dual initial and continuing vocational training, special programmes for school leavers that combine dual vocational training with regular further training and dual study programmes, external university graduates are also recruited for whom special trainee programmes are offered. Small and medium-sized enterprises rely primarily on internal recruitment channels, which can include dual courses of study in addition to initial and continuing vocational training, especially in the case of small and medium-sized enterprises. The main reasons for this, in addition to company-specific skills, are motives for employee retention. In sectors or areas with a shortage of skilled workers, the lack of suitable candidates on the external labour market is also a reason for increased efforts in internal personnel recruitment and development.

However, there are overlapping areas in both segments in which, there could be competition between professionally and academically qualified individuals. Further research will be necessary to clarify to what extent the current overlapping areas are attributable to generation-specific differences in educational pathways. First qualitative findings indicate that certain areas of position and activity, which previously could be reached professional means, are more and more filled by academically qualified people in the succeeding generation.

8.3 Labour market usability and training consequences

Initial analyses of the employability of the workforce in the sectors under consideration based on the 2012 BIBB/BAUA survey data point to sector-specific differences. The general qualification adequacy is higher in tourism and the banking sector than in trade and logistics. In terms of level adequacy, the results tend to point to fitting problems for academics who work in retail, logistics and financial services more frequently in areas of activity below their level of qualification compared with reference values for the economy as a whole. For tourism, no statements can be made on this because the number of cases is too small.

The quantitative analysis of training consequences underlines the overall assessment of the dominance of career paths in trade and logistics gained in the previous analyses. Moreover, these results also reflect the parallel importance observed for the financial services sector of vocational career paths with a high significance of advanced further training on the one hand and academic qualification pathways on the other hand for attaining senior specialist and middle management positions.

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