

Designing an External Recruitment Strategy for Micro, Small, and Medium-Sized Craft Businesses in Germany Considering Digital Tools

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Abstract

The ongoing shortage of skilled workers poses major challenges, especially for micro, small, and medium-sized craft businesses. The building electrical, plumbing, heating, and air conditioning (HVAC) crafts are particularly affected in Germany, as they are additionally burdened by demographic change, the energy transition, and internal operational factors. The aim of this article is to develop a practical strategy for external recruitment for crafts businesses. Based on existing recommendations for action and expert interviews, a concept was developed that focuses in particular on digital channels, reverse recruiting, and personal contact points such as trade fairs. Empirical validation was carried out using 23 qualitative interviews with employers and employees in the aforementioned crafts sectors in Germany 2024 and 2025, whose expectations and experiences were incorporated into the design of the strategy. The concept is being optimized based on their opinions and experiences. The results show that a combination of clearly defined target groups, targeted communication of the employer brand, and direct contact with potential applicants offers the greatest chance of success. At the same time, it is clear that traditional and proven tools remain effective, but need to be adapted to the needs and expectations of the new target groups and to current trends. The article thus provides concrete recommendations for action to reduce the shortage of skilled workers in craft businesses.

Keywords: skills shortage, external recruitment, HVAC

1. Introduction

In Germany the skilled trades have always made a significant contribution to economic performance, employment, and training, and also ensure the infrastructure of the public sector, industry, and private households (<https://www.hwkno.de/artikel/was-ist-handwerk-76,3412,163.html>, accessed 07/23/2025). The shortage of skilled workers has been rising steadily for many years in Germany, as the skills gap shows. Since 2022, construction electricians and HVAC technicians have been among the top ten occupations with the largest skills gaps (<https://www.iwkoeln.de/studien/helen-hickmann-filiz-koneberg-die-berufe-mit-den-aktuell-groessten-fachkraeft-eluecken.html>, accessed 07/23/2025).

On the one hand, demographic change is a contributing factor, with a deficit of seven million people expected on the German labour market by 2035 due to retirement. On the other hand, the German energy transition is a major factor driving up demand for skilled workers in climate and electrical engineering (https://www.bpb.de/system/files/dokument_pdf/APuZ_28-Transkript.pdf, accessed 07/23/2025). Internal factors

such as recruitment channels and external communication in companies are further causes (<https://www.kofa.de/mitarbeiter-finden/branchen-im-fokus/kofa-fuers-handwerk/>, accessed 07/23/2025).

With the help of a practical recruitment strategy, many companies would find it easier to attract qualified skilled workers for themselves and the skilled trades. The choice of suitable measures and instruments is of paramount importance here, and a wide range of guidelines, packages of measures, and recommendations for action on recruitment already exist, for example, from the German Chamber of Skilled Crafts or the German Ludwig Fröhler Institut für Handwerkswissenschaften e. V.. However, these mostly refer to a broad range of trades, which means that there is no specialization.

This article answers the question which strategies and instruments for external recruitment should be used by micro, small, and medium-sized craft businesses considering digital tools to counteract the shortage of skilled workers in Germany. To answer this question, primary data from 23 interviews, conducted in Germany 2024 and 2025 with employers and employees in the electrical engineering and HVAC trades, is used. Chapter 2 covers the basics of the skilled crafts, the shortage of skilled workers, and recruitment, which serve as a basis for developing the concept. In addition, there is an insight into the recruitment strategy designed for the building electrical and HVAC crafts. Chapter 3 describes the empirical application. Chapter 4 summarizes the results of the qualitative research and answers the research question. In Chapter 5, the criteria of qualitative research are reviewed, followed by a conclusion and a brief outlook in Chapter 6.

2. Background

In Germany the term “craft business” is composed of the terms ‘craft’ and ‘business’. From a technical point of view, craft is defined as the production of goods by hand, and from a sociological point of view, it is defined by the occupational title (Glasl, Maiwald & Wolf, 2008). An enterprise is defined as a local, technical, and organizational unit for the purpose of producing goods and services (<https://wirtschaftslexikon.gabler.de/definition/betrieb-30819>, accessed 07/24/2025). Craft businesses, or craft trades, do not form a separate economic sector based on the sectoral economic classification. They can be classified in both the secondary and tertiary sectors (<https://www.regionalentwicklung.de/regionales-wirtschaften/wirtschaft-gesellschaft/regionales-wirtschaften-als-ergaenzung-zur-globalisierung/>, accessed 08/24/2025). The skilled trades are primarily characterized by micro, small and medium-sized enterprises (SMEs); in 2022, 99.60% of skilled trades businesses fell into the SME category (<https://www.destatis.de/DE/Themen/Branchen-Unternehmen/Handwerk/aktuell-struktur-handwerk.html>, accessed on 07/24/2025).

The German Crafts and Trades Code (Handwerksordnung, HwO) forms a uniform legal basis for the skilled trades. It contains regulations on the practice of a trade, the structure and organization of the skilled trades, and training and continuing education. The HwO is a dynamic structure that is subject to constant adaptation. The structure of the craft trade organization corresponds to a functional organization in which each body has the necessary competencies for a specific function within the overall organization (<https://www.hwk-stuttgart.de/artikel/so-organisiert-sich-das-handwerk-in-bund-im-land-und-regional-67,0,757.html>, accessed 07/24/2025).

In contrast to industry, freedom of trade in the skilled trades is restricted for trades requiring a license, as a business may only be opened if the owner has passed a master craftsman’s examination (<https://www.hwk-potsdam.de/artikel/rechtliche-grundlagen-des-handwerks-9,0,352.html>, accessed 07/24/2025). Another distinguishing feature from industry is the division of labour; in industrial companies, an employee usually only carries out part of the work processes, whereas in skilled trades, the employee carries out all work processes (Deutscher Industrie- und Handelskammertag e. V., 2021). The dual nature of craft training is unique to the German education system and has been recognized as a closed system. It combines practical work and learning in the workplace with reflective theoretical training in a vocational school. The journeyman’s examination is a prerequisite for further education in the skilled trades (<https://www.zdh.de/daten-und-fakten/das-handwerk/#c2510>, accessed 07/24/2025).

In 2023, the German skilled trades increased their sales by a further 4.20% compared to the previous year. The reasons for the increase in sales are high inflation, the consequences of the war in Ukraine, material shortages, and delivery problems, which led to acute price increases. All these factors are dampening the economy, and the number of employees also fell by 1.30%, which is further exacerbating the shortage of skilled workers (<https://www.destatis.de/DE/Themen/Branchen-Unternehmen/Handwerk/aktuell-konjunktur-handwerk.html>, accessed 07/24/2025). The skilled trades thus form an important pillar without which the state would lack both revenue and economic stability. The German Federal Ministry for Economic Affairs and Climate Action describes the skilled trades as an important driver of growth and prosperity (<https://www.bmwk.de/Redaktion/DE/Textsammlungen/Mittelstand/handwerk.html>, accessed 07/24/2025).

In 2000, the term “skills shortage” was first used in the IT industry; since 2006, the terms “skills shortage” and “skills bottleneck” have been used independently of the occupational sector (Institut der deutschen Wirtschaft Köln e.V., 2020). Considering essential factors such as qualifications, the number of job seekers, the occupational group, or the region, the following definition emerges: A skilled worker shortage is when the supply of workers with the right professional skills and qualifications to produce goods and services in a certain occupational group in a certain region is lower than the demand from employers over a longer period of time (Institut der deutschen Wirtschaft Köln e.V., 2020). A skilled labour shortage, on the other hand, is a temporary imbalance between the supply of workers with specific qualifications and/or in a specific region and the demand for such workers (<https://www.bpb.de/themen/arbeitsmarktpolitik/178757/fachkraeftemangel/>, accessed 07/24/2025). There are therefore significant differences in terms of time frame and specification. However, there are also similarities, such as the requirement for completed vocational training or regional boundaries.

The causes of the steadily increasing shortage of skilled workers in the skilled trades are both cyclical and structural. In economic terms, the shortage of skilled workers can be attributed to the positive economic development of recent years. This is accompanied by a mismatch between supply and demand on the labour market, which is evident in the low number of available unemployed people and a mismatch between qualifications and requirements (Schirner, 2021).

The “three megatrends” of demographic change, digitalization, and decarbonization, which are listed in the German government’s skilled labour strategy, are the main structural causes. Demographic change is particularly noticeable in an aging society; the baby boomers are retiring from working life and there are not enough young people entering the labour market. In addition, digitalization will continue to advance in Germany, which requires a reliable and effective infrastructure—this can only be ensured by the right skilled workers (Federal Ministry of Labor and Social Affairs, 2022). The mobility, construction, industry, and energy sectors play a decisive role in decarbonization. Skilled trades will play a key role in the implementation of the energy transition, which is why a significant reduction in the existing shortage is not expected in the coming years (Federal Ministry of Labor and Social Affairs, 2022). Remuneration and work-life balance also play a decisive role in career choices, with skilled trades considered unattractive by school leavers in contrast to other sectors (Greilinger, 2023).

Recruitment is based on personnel requirements planning, which refers to measures for determining the current and future quantitative and qualitative personnel requirements of a company (Stock-Homburg & Groß, 2019). It is essential for successful personnel management and is tailored to the individual needs of the company. In order to develop a holistic concept, it is important to focus on strengthening the employer brand and the opportunities for recruitment.

A recruitment strategy can only be successful if the company builds a strong employer brand and is perceived as attractive by the labour market. Consequently, personnel marketing is used to accompany recruitment in order to increase the chances of effective and efficient recruitment. In the course of this, an Employee Value Proposition (EVP) is developed as a distinguishing feature from other companies, on which the employer brand is gradually built and strengthened (Träger, 2021). Only when the EVP has been clearly defined can a meaningful selection of measures to increase employer attractiveness be made, depending on the corporate culture (Träger, 2021). The selection of measures is followed by communication of the measures in order to convince potential employees of the company. In the best case, this results in a positive reputation.

Personnel recruitment is a sub-function of human resource management and deals with the procurement of the workforce required by a company in terms of quality, quantity, time, and location (<https://wirtschaftslexikon.gabler.de/definition/personalbeschaffung-44990>, accessed 07/24/2025). The main task is to develop a strategy for approaching applicants and candidates and to implement the associated tools. The aim is to provide the right people at the right time and in the required quantity (Träger, 2021). In addition to the division into internal and external recruitment, a further distinction can be made between active and passive recruitment (<https://www.studysmarter.de/ausbildung/kaufmaennisch/personalwirtschaft/personalbeschaffung/>, accessed 07/24/2025).

The basis of successful recruitment is a strategy tailored to the company that is guided by its own principles as well as the expectations of applicants and candidates. In the context of external recruitment, on which the concept is based, a distinction is made between active and passive recruitment, with the main difference lying in the initiative taken by the company.

Passive recruitment is characterized by presenting the company in an attractive light to applicants in order to indirectly appeal to them and spark their interest in the company (<https://www.pitchyou.de/de/hr-blog/passive-sourcing-recruiting-personalbeschaffung>, accessed 07/24/2025). Defining the target group is an essential core element in selecting and communicating measures to increase employer attractiveness. It relies on the following instruments:

(1) Publication of job advertisements

The publication of job advertisements has increasingly adapted to trends; companies are becoming more creative in terms of design and distribution in an attempt to stand out from the competition. Legal requirements must not be neglected; a job advertisement must comply with the provisions of Section 11 of the German General Act on Equal Treatment (Träger, 2021).

(2) Creation of a company website

A company website can provide both general and job-related information; possible content includes a description of the company culture, the fields of work, or the development opportunities within the company (Stock-Homburg & Groß, 2019).

(3) Company profile on social media

A company profile enables communication on an equal footing and allows further decision-making criteria, such as the working atmosphere or benefits, to be communicated to specific target groups (Wermke, 2004). Channels that are particularly suitable for this purpose are Instagram, Facebook, and WhatsApp. According to a recent study by the German public tv stations ARD and ZDF, 82,00% of 14- to 29-year-olds use Instagram and more than 50,00% use Facebook and Snapchat. Facebook and Instagram are the frontrunners among 30- to 49-year-olds (Müller, 2024).

Active recruitment refers to the identification of and contact with suitably qualified candidates to fill vacant positions. In addition to filling vacancies, another benefit is the long-term establishment of contacts and networks with identified ideal candidates (<https://www.hrm.de/hr-glossar/active-sourcing/>, accessed 07/24/2025). It is carried out in two phases. Phase one involves the targeted search for candidates and phase two involves approaching individual candidates (<https://www.haufe.de/thema/active-sourcing/>, accessed 07/24/2025). It relies on the following tools:

(1) Active sourcing

One tool used in active sourcing is reverse recruiting portals, which are Internet-based platforms where individuals present their skill profiles and information about the job they are looking for, their salary expectations, and their desired location in order to receive job offers (Stock-Homburg & Groß, 2019).

(2) E-recruiting

This tool works with electronic media and is closely linked to activities aimed at strengthening the employer brand. Electronic job advertisements are published on job boards, the company's own website, or social media. The advantages here are target group-specific adaptation and independence from time constraints (Träger, 2021).

(3) Training fairs and job fairs

These events allow companies and candidates to come into direct contact and meet on equal terms to exchange information or hold informal discussions to build relationships.

In the skilled trades, training young people to become qualified skilled workers is an important aspect of recruitment. Accordingly, the 15 to 24 age group in particular should be encouraged to take up a skilled trade. In order to identify the target group more precisely, it is worth taking a look at the educational background of trainees and skilled workers. According to the nationwide evaluation by the Central Association of German Crafts (Zentralverband des Deutschen Handwerks), 43.20% of trainees in skilled trades have a secondary school diploma or equivalent. This is followed by 34.90% of trainees with a secondary school diploma and 16.40% with a university or technical college entrance qualification (Zentralverband des Deutschen Handwerks, 2023). Secondary school students attribute an important role to skilled trades and can imagine pursuing training in this sector (Greilinger, 2023). Of the total 151,243 training places offered in 2022, mainly in skilled trades, 20,977 remained unfilled; this is the highest figure in the last ten years (Köppen & Malin, 2023). In professions with persistent shortages, such as electronics technicians for energy and building technology and HVAC mechanics, however, both the number of training places offered and demand rose steadily between 2013 and 2022, and the trend is continuing. The number of vacancies increased by 19.00% and demand by 10.80%, with the greatest growth in the fields of construction electrics and HVAC. The reason for this is the need for these occupational groups to implement the energy transition and climate policy goals (Institut der deutschen Wirtschaft Köln e.V., 2023).

(4) Immigration of foreign skilled labour

In addition, the qualified immigration of foreign skilled workers is an important pillar for countering the shortage of skilled workers in the future, as the proportion of migrants in the focused trades has been rising steadily since 2013. (<https://iab.de/grafiken-und-daten/beruf-struktur-entwicklung/?beruf=573&ion=1&qualifikation=2&jahre=2013>)

%2C2016%2C2019%2C2021%2C2022#iab-results, accessed 07/27/2025)
(<https://iab.de/grafiken-und-daten/beruf-struktur-entwicklung/?beruf=814®ion=1&qualifikation=2&jahre=2013%2C2016%2C2019%2C2021%2C2022#iab-results>, accessed 07/27/2025).

The theoretical concept for recruitment includes four tools that have proven to be highly effective based on past scientific studies.

The following theoretical concept is intended to provide companies with guidelines for the recruitment process and to highlight alternative tools:

The first passive recruitment instrument is the publication of job advertisements in various media, both digital and analog, as these continue to be considered of medium to high importance (Freudig & Garnitz, 2022). The variety of design options and the choice between regional and national advertising offer flexibility and spontaneity in terms of publication timing. Multimedia publication is recommended, as applicants today are multimedia users. Possible contact points include regional daily newspapers, your own website, social media, or job boards. The timing of publication must be carefully considered in order to reach as many people as possible—accordingly, they should be shared on weekends if possible (ARD/ ZDF Research Commission, 2023). Content aspects such as the job title, requirements, or qualifications (Thommen, 2023) as well as design aspects such as color scheme, font selection, and image selection should also be taken into account. For more efficient and simplified creation of job advertisements, it is also worth taking a look at the world of artificial intelligence (AI). There are a variety of tools that generate fully formulated job advertisements with just a few pieces of information. In an interactive chat, the AI asks for relevant information and generates a job advertisement that can be customized afterwards (<https://www.heyjobs.co/recruiting/stellenanzeige-schreiben-recruitgpt/>, accessed 07/28/2025).

The creation of a company profile on social media as a second passive tool depends on the target group and current trends. The 14 to 29 age group primarily uses Instagram, with a share of over 80.00%; the 30 to 49 age group mainly uses Facebook and Instagram, with around 50.00% each (Müller, 2024). Accordingly, Instagram is best suited to reach both target groups in the best possible way. In principle, the authenticity of the company and the privacy of employees and customers must be maintained. Social media will continue to gain in importance in the future, which is why the potential of this recruiting channel should be exploited even more (Freudig & Garnitz, 2022).

Reverse recruiting portals are becoming increasingly important as an active tool against the backdrop of the shortage of skilled workers in recent years, including in the skilled trades. Job seekers create a profile with their qualifications, requirements, etc., and companies can filter and search based on various criteria. The candidates' profiles can then be viewed and, if interested, contact can be made (<https://www.arbeitsagentur.de/bewerberboerse/>, accessed 07/29/2025). According to recent studies, active sourcing, which includes reverse recruiting, is of greatest importance for small and medium-sized companies (Freudig & Garnitz, 2022).

Training fairs and job fairs are another active tool that offer further opportunities for informal contact. At training fairs, companies can present themselves to potential trainees and convince them of the benefits of vocational training. The career guidance information provided at fairs has a significant influence on the career choices of young people between the ages of 16 and 25 (Wirtschaftsjunioren Deutschland, 2023). Job fairs can be helpful for companies, as they usually attract seriously interested candidates who have already completed vocational training. After declining in importance during the coronavirus pandemic, training and job fairs have been experiencing an upswing since 2022 (Freudig & Garnitz, 2022).

This theoretical concept has been validated empirically in the HVAC sector in Germany in 2024 and 2025.

3. Approach

The research method used for data collection is the interview method, which uses direct questions to obtain explicit information that the interviewees consciously reflect on (Bak, Felser, & Fichter, 2022). The aim of the interviews is to explore opinions, experiences, and ideas on measures and instruments, thereby optimizing the content presented. The four fundamental principles of openness, individuality, significance, and reflexivity, which are important in the approach, must be observed (Bak, Felser, & Fichter, 2022).

The semi-standardized interview was chosen as the interview technique, as it is particularly suitable for deepening information already obtained. The problem-centered guided interview variant is used, as the socially relevant topic of the problem of recruiting personnel in the skilled trades is the focus due to the shortage of skilled workers (Hussy, 2008). The creation of an interview guide is considered a crucial preparatory step (Bortz & Döring, 2006). The guideline for employer interviews comprises 33 questions and the guideline for employee interviews comprises 23 questions. The general section of questions is used to collect personal and company-related data, such as age, educational status, personnel planning, and employee and company size. The

specific questions are used to identify problems in filling vacancies and to gather opinions, experiences, and ideas regarding measures to increase employer attractiveness and recruitment tools.¹

The 23 interviews were conducted between November 7th, 2024, and January 8th, 2025, and lasted between 20 and 60 minutes, depending on how talkative the interviewee was. The interviews were conducted in person or via MS Teams. During the contact phase, the interviewees were informed about the formalities and the interview process, including the replacement of their names with numbers and the destruction of the documents after evaluation. During the survey phase, the questions were answered in chronological order, with some questions being expanded or omitted depending on the interviewee's willingness to talk. The closing phase included thanks for participation and information on how the data obtained would be used. After the interviews, a transcript was created using the audio recordings, which was sent to the interviewees for approval and only then used for evaluation.

Mayring's qualitative content analysis serves as the basis for the empirical analysis, which refers to a structured and qualitative approach to the evaluation of text-based data. Based on interest, findings, and research questions, a variety of content analysis methods can be selected. In the context of this paper, deductive category application was used (Mayring, 2010). Mayring derived eight criteria for conducting qualitative content analysis from the quality criteria of validity and reliability: procedural documentation, regularity, argumentative interpretation assurance, object proximity, communicative validation, and triangulation (Mayring, 2022). These are analyzed in Chapter 5.

Another part of Mayring's content analysis is the determination of the analysis units, or the definition of coding, context, and evaluation units. Individual significant words are defined as coding units. Sentences relating to opinions and experiences of individual recruitment instruments are defined as context units. The answers given to the questions from the interviews are defined as evaluation units (Mayring, 2010). The category system formed for evaluating the interviews is designed to be as simple as possible and as comprehensive as necessary. For statements that cannot be assigned to an existing category but are nevertheless relevant to the recommendation for action, a separate category is formed using inductive category formation (Mayring, 2010).

4. Results of the Expert Interviews

A total of 23 interviews were conducted; 13 with employers (three from the electrical construction trade and 10 from the HVAC trade) and ten with employees (five from the electrical construction trade and five from the HVAC trade).

Evaluation of the general questions

The employers mostly run small or medium-sized businesses. The age groups are mixed — the people surveyed are between 28 and 66 years old. On average, the interviewees are 47 years old, which means they already have experience but are still open to innovation. Small companies employ between one and nine trainees, while medium-sized companies employ more than ten trainees.

The majority of those surveyed were Generation Z employees (born between 1995 and 2010), which provides a good understanding of their expectations and experiences (<https://www.ibau.de/akademie/wissenswertes/generation-x-y-z/>, accessed on 07/31/2025). All employees interviewed have completed their training and can be defined as skilled workers. The plans of the employees surveyed to obtain master craftsman qualifications demonstrate the motivation of young skilled workers to continue their development after completing their training.

Evaluation of the specific questions in the employer interviews

The age differences are clearly reflected in the results of the specific questions. While employers between the ages of 25 and 54 are open to the use of new tools and the adaptation of existing ones, employers aged 55 and above have a more conservative attitude.

Category: Job recruitment

All of the small and medium-sized companies interviewed are looking for skilled workers and trainees. The main problems they face in recruiting new staff are too few applicants for the number of vacancies, insufficient qualifications among applicants, and excessive wage and salary demands.

Employer attractiveness category

Companies already invest a lot of time, money, and effort in strengthening their employer brand. Larger companies generally offer more than micro and small businesses. Their focus is on the personal component—they aim to attract employees by creating a family-like working atmosphere and taking individual

¹ The interview outline can be provided upon request.

needs into account. The main reason for not implementing certain measures is the financial burden. Measures that could be considered in the future focus on the areas of challenges and support, work-life balance, and leadership and values. To communicate these measures, it is recommended to mention them in job advertisements and to present them in social media posts.

Category: Job advertisements

The strong position of this tool was highlighted in the interviews. All companies use job advertisements and would like to continue doing so. The shift from print to online media has reached the skilled trades, and employers want to focus primarily on digital job postings in the future, both on social media and on their own websites. There is consensus that job postings should be short and concise, with little text and extensive use of images.

Category: company profile on social media

Micro-enterprises either do not have a profile or only have a profile on Instagram or Facebook. Small and medium-sized enterprises, on the other hand, use several social media platforms, and more intensively than micro-enterprises. Popular social media platforms are Instagram and Facebook. However, LinkedIn and YouTube are only used by medium-sized enterprises. The time required and the lack of capacity to maintain the profile are cited as the main problems. Micro and small businesses are considering hiring a temporary employee to take care of their social media profiles. In terms of content, the focus should be on presenting the company and its employees; insights from the construction site and the publication of job advertisements are also conceivable. According to the interviewees, authenticity is the key component for creating a convincing and appealing image.

Category: Reverse recruiting portals

Only one company has used such a portal in the past; all other companies do not currently use reverse recruiting portals, nor have they done so in the past. The interviewees do not see this tool as relevant for the skilled trades.

Category: Training fairs and job fairs

Regional fairs are mentioned by all interviewees as their preferred type of fair. The reasons for this are the regional roots of the skilled trades and the risk of low added value when visiting national fairs. The time and financial investment required should also be considered a risk. When designing their trade fair stands, the interviewees consider the presentation of materials and tools and the uniqueness of the stand to be particularly important in order to stand out from the competition.

Category: Other ways of addressing potential skilled workers and trainees

Cooperation with schools and educational institutions emerged as a new category, as training will make an essential contribution to combating the shortage of skilled workers. In particular, the presentation of skilled trades in schools by trainees has proven successful for several years. Company tours or presentations at schools, especially at secondary schools, are recommended. Statistically, most trainees in skilled trades have a secondary school diploma and also have the best image of skilled trades. Companies can make themselves approachable and present themselves in a realistic and attractive way. In this way, an understanding of skilled trades can be created at an early stage and across different age groups. "Speed dating" events between skilled workers and employers are also very popular. A kind of open house at the company is another way to establish initial informal contact.

Evaluation of the specific questions in the employee interviews

Category: Employer attractiveness

In some cases, employees already receive many attractive offers, although older employees attach less importance to this. Younger employees would like to see a wider range of offers, particularly in the area of promotion and leadership, such as support for continuing professional development, both financially and personally. Health-promoting measures are also mentioned as desirable in order to create a physical balance to daily work.

Category: Job advertisements

Job advertisements were rarely used by the people surveyed. A classic design with color accents and images is preferred. Relevant information such as job duties, salary, and working hours should be included. For younger employees, continuing education opportunities are also important information. A casual, humorous slogan that sticks in the memory can be used as desired to convey a friendly and humorous working atmosphere.

Category: Company profile on social media

Respondents in the 15 to 29 age group are more sensitive to positive and negative posts than older employees.

Introducing employees, providing insights into the workplace, and sharing job postings every two weeks are considered appealing.

Category: Reverse recruiting portals

The results of the employee interviews confirm the results of the employer interviews. According to these, the relevance of this tool is negligible.

Category: Training fairs and job fairs

Regional fairs are particularly preferred by the employees surveyed as a source of information. By visiting training fairs, respondents get an idea of which career path they would like to pursue. In some cases, visiting a fair convinced them to pursue a skilled trade. When designing the fair booth, demonstrations of materials, tools, and techniques as well as a modern booth are desired. A team of journeymen, trainees, and master craftsmen as well as an open manner are preferred.

5. Review of the Quality Criteria

The procedural documentation was ensured by recording all interviews in audio format during the interview. In addition, the research method of semi-standardized interviews was chosen, using a guideline and subsequent qualitative content analysis to ensure the traceability of the data collection. Consistency was ensured by the structured categories defined in advance. The precise analysis and identification of similarities and differences in the interviewees' statements also guarantees the argumentative validity of the interpretation. The relevance of the topic was ensured by conducting the interviews in person and via MS Teams. Communicative validity was ensured by informing the interviewees at the end of the interview about the next steps, thus making them competent sources. After the transcript was created, it was sent to the interviewee by email for review and only then used for further analysis. The quality criterion "triangulation" was fulfilled, as qualitative content analyses were analyzed and compared according to Mayring (2010).

6. Conclusion

Against the backdrop of an acute shortage of skilled workers, it is essential for companies to choose an external strategy with active and passive instruments to ensure sustainable and future-oriented recruitment. To answer the underlying research question, a literature review and primary research in the form of qualitative research were conducted. Each instrument represents a piece of the puzzle that fits together to form a structure, whereby regular review and adjustment must be considered a success factor for achieving the objectives. The publication of job advertisements, the use of a company profile on social media, and participation in training fairs and job fairs have proven to be promising.

The acute shortage of skilled workers in the focused trades of building electrical engineering and HVAC is a ubiquitous topic, and employers are naturally aware of the tense situation on the labor market in the skilled trades. At the present time, passive instruments are particularly relevant, although the inclusion of active instruments is definitely recommended for the future. (Freudig & Garnitz, 2022). Actively approaching potential candidates has proven particularly promising for attracting trainees. Training fairs and cooperation with schools therefore play a decisive role in recruiting potential trainees. To increase employer attractiveness, social media must be used more extensively to provide information about the company and its advantages and offerings. Measures in the areas of support and leadership play an essential role in the choice of employer, especially for younger employees.

Looking ahead, it is essential to monitor the further development of the skilled labour shortage in all skilled trades, especially in those trades that are acutely affected. There is no doubt that further changes will occur in the future. Nevertheless, a holistic view of the past, present, and future is recommended.

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