

## Different routes – one goal: how companies recruit apprentices

► “Trainees – a scarce commodity” was the headline in *Technology Review* in December 2009. Increasingly often this kind of report appears in the press, drawing attention to the impacts of demographic change, falling numbers of school-leavers, fewer applicants for training places and the resulting unfilled apprenticeship vacancies. Since this demographic downturn is set to continue for the time being, the question that arises is, what are companies doing in order to get hold of this “scarce commodity”? The article focuses on the beginning of the process of filling an apprenticeship vacancy – i. e. recruiting potential applicants – and the strategies adopted by companies.

### Growing importance of gaining applicants’ attention

Between the decision to offer a training place and the young person’s arrival at the firm, a considerable period of time will normally elapse. This can be divided into different phases, each of which is characterised by a specific set of tasks associated with filling the training place (cf. DGfP 2004, p. 15).

In the past, the main task faced by companies offering initial vocational training (“training companies”) was to sift the numerous applications for an apprenticeship and select those young people who best fulfilled the specified requirements. In future, owing to the decline in school-leaver numbers, the question that will come to the forefront is how companies can attract apprenticeship applicants. Time-honoured recruitment practices need to change, suggests a study by GERICKE/KRUPP/TROLTSCH (2009), among others. Their results show that the apprentice-recruitment routes chosen by companies have a clear influence on their ability to fill training places. Vacancy-filling difficulties arose particularly when firms used only a small number of recruitment channels and relied mainly on notifying their training place vacancies to employment offices and chambers (of industry, crafts etc.).

Against this backdrop, this article takes a closer look at company recruitment practices. It examines which strategies companies use to attract potential apprentices, drawing on data from 1,068 training companies in Germany, collected by BIBB in the course of a representative company survey at the end of 2008 (cf. Table 1). In addition to information on the companies’ structural characteristics, the data includes responses on

- the use of eight applicant-recruitment methods<sup>1</sup>,
- the start of the recruitment phase, and
- difficulties with filling apprenticeship vacancies.

<sup>1</sup> Of the recruitment channels mentioned in the relevant research literature (e. g. BREISIG 2005), the present study considered only those which are appropriate to initial vocational training contexts and which also presuppose some action taken by the companies themselves. Speculative applications are not therefore classified as recruitment channels in the sense understood here.

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## Use of recruitment channels

Extreme variation is found in the intensity with which companies use the individual recruitment channels (cf. Figure 1). Notifying the employment office of vacant apprenticeship places is by far the most intensely-used instrument for attracting applicants. Radical change in people's information-seeking behaviour, most notably in the younger generation, is having a noticeable effect on the placement of advertisements. The Internet has clearly outstripped the "traditional" newspaper advertisement as a means of informing young people about training opportunities. All the same, around half of companies refrain from using any form of written text – in any medium whatsoever – to reach young people. With the exception of work experience placements, strategies for meeting young people face to face are used sparingly. Over three-quarters of companies completely refrain from holding open days to showcase themselves to the target group as a training company. Less than three per cent of companies make "very intense" use of this instrument.

The utilisation of the different recruitment channels varies markedly with company size. Smaller companies are generally less outgoing in their approach to gaining the attention of potential apprentices. Apart from notifying the employment office of vacant apprenticeship places, more than a quarter of smaller companies make intense use of no other instrument. Quite the opposite: a significant portion of small companies barely take advantage of any of the opportunities available. In contrast, larger companies are significantly more proactive, and the largest companies most of all. Only a few of these rule out one of the options completely.

### Four different recruitment strategies

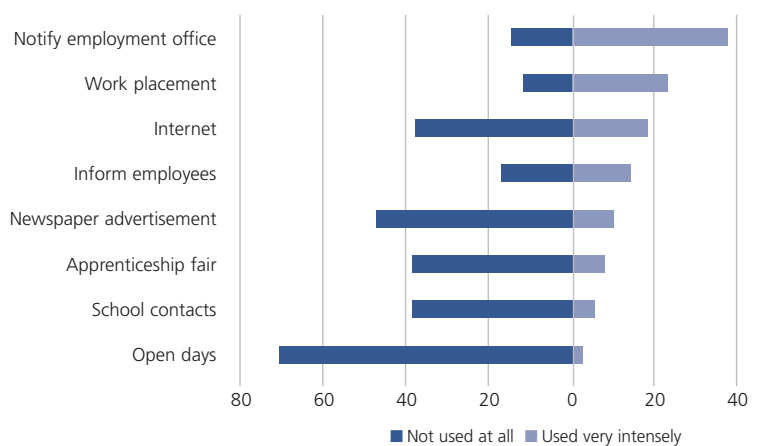
So far the recruitment channels have been considered singly. In reality, companies use several recruitment channels simultaneously to gain the attention of training-place applicants. Differences can still be found between companies as to which recruitment channels they favour and which ones they use as a secondary approach. In other words, there is variation in how the use of the individual channels fits in to an overall recruitment strategy. A possible means of identifying such recruitment strategies consists in the use of cluster analysis techniques (cf. box). Using this method, four clusters could be identified among the companies surveyed, each of which is characterised by a specific approach to finding applicants.

The first cluster encompasses almost a quarter of all companies (cf. Table 2, p. 16). This group's recruitment strategy is dominated by channels which enable indirect, non-personal contact to be initiated with the potential

Table 1 Design of the company survey

Total population	All companies in the secondary, tertiary and public sector which employed at least one apprentice pursuant to the Vocational Training Act (BBiG) or the Crafts Code (HwO) in one of the years 2005, 2006 or 2007
Basis	"Establishment Register" (Betriebsdatei) of the Federal Employment Agency (BA) as of 30.06.2007
Sampling method	Disproportionate stratified sample by company size and industry sector
Data collection method	Postal written survey after preliminary telephone screening
Target persons	Company-based initial vocational training managers or coordinators
Weighting	Adjustment to the distribution in the total population with regard to company size and industry sector
Details	EBBINGHAUS (2009)

Figure 1 Use of different recruitment channels (all companies; responses in %)



Response categories "Not at all" and "Very intensely" extracted from the total of six options on the response scale.

apprentices, predominantly mediated via the Internet, the press and the employment office (cf. Figure 2, p. 16).

Ways of introducing themselves directly to young people as a training company – such as presentations in schools and at apprenticeship fairs – are distinctly under-represented in this group. To that extent, the Cluster I companies pursue an *indirect-distanced* recruitment strategy.

The companies of Cluster II, which is the largest cluster by far, accounting for a good 50 per cent, are rather defensive overall in their recruitment behaviour. With the

#### Cluster analyses

Cluster analysis techniques make it possible to determine whether the respondents can be divided into groups (= clusters). Usually clustering is done in such a way that respondents within a group show strong similarities on the attributes of interest, while clear differentiations exist between the groups.

In the present case, cluster analysis was used to explore whether the companies could be divided into groups on the basis of similarities between the recruitment strategies they used. The number of clusters was obtained by hierarchical cluster analysis according to Ward's method. The companies were assigned to clusters by means of a cluster centre analysis applying the k-means algorithm (cf. inter alia BACHER 2002).

Table 2 Cluster affiliation according to selected structural attributes (figures as row percentages)

		Distributions				One-dimensional Chi2 test*	
		Cluster I indirect-distanced	Cluster II defensive-personal	Cluster III moderate-proactive	Cluster IV proactive-engaged	$\chi^2$	p
<b>All companies</b>		<b>24.3</b>	<b>51.6</b>	<b>16.8</b>	<b>7.2</b>		
<b>Company size</b>	under 50 employees	24.1	55.0	16.1	4.8	2.58	.462
	50 or more employees	25.7	30.4	21.6	22.3	279.10	.000
<b>Economic sector</b>	Secondary sector	18.4	55.0	20.2	6.3	18.92	.000
	Tertiary sector	32.7	45.2	15.4	6.6	9.77	.021
	Public sector	9.0	66.3	14.6	10.1	54.83	.000
<b>Region</b>	West	21.2	54.6	17.5	6.6	10.30	.016
	East (incl. Berlin)	38.3	38.3	13.5	9.8	25.58	.000

\* Explanatory note: The method adopted was one-dimensional chi-square testing under the assumption of non-equal distribution. This is indicated if, on the basis of existing knowledge, a certain distribution can be expected. In the present case, this is the distribution of the total sample. One-dimensional chi2 tests examine whether the actual distribution within a group – for instance, secondary sector companies – matches or deviates from the expected distribution. Significance levels (p) of .05 or lower indicate a statistically significant deviation in the actual from the expected distribution.

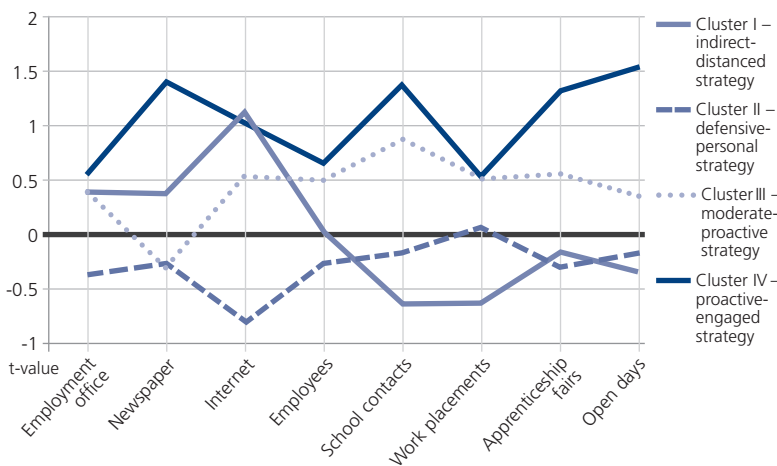
The third cluster groups together one-sixth of companies. Overall, the companies in this cluster invest rather more effort in acquiring applicants than the average. Only the use of newspaper advertising is under-represented in this cluster. Its recruitment strategy can thus be characterised as *moderate-proactive*.

Cluster IV, accounting for a good seven per cent of companies, is the smallest. It comprises companies which go even further than the Cluster III companies in their efforts to gain the attention of applicants. Particularly with regard to the direct approaches – presentations as part of school events, apprenticeship fairs and open days – their efforts go considerably beyond those of the other companies. Thus, these companies are pursuing a *proactive-engaged* recruitment strategy.

### Which companies pursue which recruitment strategies?

From the above consideration of the individual recruitment channels, correlations emerged between intensity of use and company size. The next aspect to investigate is the extent to which company size, as well as other structural attributes, also have an effect on the overall recruitment strategy. For this purpose, one-dimensional chi-square tests were calculated as a means of determining for each company size-class – and similarly, each category of the other two structural attributes considered – whether the distribution of companies of the respective size-classes in the four identified clusters differed from the total sample. As Table 2 shows, this was not the case for smaller companies (fewer than 50 employees) whereas it certainly was for larger companies (50 employees or more). The latter are distinctly under-represented in the cluster with a *defensive-personal* recruitment strategy (Cluster II) and account for a disproportionately large share of the *proactive-engaged* group of companies (Cluster IV). Economic sector also has a noticeable effect on cluster affiliation, the main differences being apparent in relation to Clusters I and II. Companies from the secondary and the public sector are under-represented in Cluster I and over-represented in Cluster II. The converse is true for companies in the tertiary sector. From a differentiation by regions, the most striking finding is that companies from the new (post-unification) German federal states are distinctly under-represented in Cluster II, slightly under-represented in Cluster III, but are over-represented in Cluster I and show a similar tendency in Cluster IV.

Figure 2 Normalised recruitment strategies of the identified clusters



**Explanatory notes:** The chart shows plotted t-values. These are normalised mean deviations between cluster and total sample with regard to the use of recruitment channels, where the mean intensity of use in the total sample is set to "0." Accordingly, negative values indicate that use of a recruitment channel is less intense in the cluster than in the total sample. Positive t-values indicate that the recruitment channel is used more intensely in the cluster than in the total sample.

exception of offering work placements (Betriebspraktikum), they make less intense use of all other recruitment channels than the "average company" (the zero line in Figure 2). At the same time, the data indicate that – unlike Cluster I – they tend to favour direct and personal communication over indirect contact. Against this background, the recruitment strategy of Cluster II can be characterised as *defensive-personal*.

Table 3  
Correlations between recruitment strategies and difficulties in filling apprenticeship vacancies (responses in %)

		Distributions					Two-dimensional chi2 test*	
		Total	Cluster I indirect-distanced	Cluster II defensive-personal	Cluster III moderate-proactive	Cluster IV proactive-engaged	$\chi^2$	p
<b>There were too few applicants</b> (N = 1,026)	yes	17.0	21.7	15.2	15.2	17.3	5.5	.139
	no	83.0	78.3	84.8	84.8	82.7		
<b>There were too few suitable applicants</b> (N = 1,050)	yes	55.8	58.3	53.3	57.1	62.2	3.32	.345
	no	44.2	41.7	46.7	42.9	37.8		
<b>Applicants did not attend the interview</b> (N = 1,032)	yes	33.7	43.2	25.7	26.6	74.3	84.31	.000
	no	66.3	56.8	74.3	73.4	25.7		
<b>Recruits did not start apprenticeships</b> (N = 1,041)	yes	14.2	18.9	8.7	18.8	27.0	30.86	.000
	no	85.8	81.1	91.3	81.2	73.0		
<b>Apprenticeship contracts were terminated prematurely</b> (N = 1,041)	yes	27.7	26.3	25.3	38.0	25.7	11.02	.012
	no	72.3	73.7	74.7	62.0	74.3		
<b>Available training places remained unfilled</b> (N = 1,059)	yes	15.5	20.0	12.1	10.0	38.4	47.18	.000
	no	84.5	80.0	87.9	90.0	61.6		

\* **Explanatory note:** The two-dimensional chi2 test is a refinement of the one-dimensional test. The test examines whether a statistical correlation exists between the two attributes under consideration; in the present case, between cluster affiliation and the occurrence of difficulty with filling apprenticeship places. Significance levels (p) of .05 or lower indicate that such a correlation can be assumed.

### PROACTIVE RECRUITERS ANTICIPATE HIGHER DEMAND FOR SKILLED WORKERS

It would stand to reason that the type of recruitment strategy correlates with the anticipated demand for skilled workers. The analyses confirmed this hypothesis. Companies adopting a *moderate-* or *proactive-engaged* approach (Clusters III and IV) to finding training-place applicants anticipate high demand for skilled workers, with significantly higher frequency than companies pursuing the other two recruitment strategies (24.9 % and 32.1 % respectively in Clusters III and IV compared with 20.0 % and 22.7 % in Clusters I and II respectively).<sup>2</sup> In contrast, the (roughly) ten per cent of companies trying to recruit potential applicants by *indirect-distanced* means (Cluster I) state with twice to seven times the frequency of the comparison groups that they have no demand at all for skilled workers in the immediate future. An additional aspect on which there are clear differences between the clusters is the significance attributed to in-house initial vocational training for meeting the anticipated demand for skilled workers. For three out of four companies from Cluster III (*moderate-proactive*), in-house initial vocational training takes priority over all other options for meeting skilled workforce needs. This applies to two out of three companies in Cluster II (*defensive-personal*) and at least one in two companies in Clu-

ster I (*indirect-distanced*). In Cluster IV (*proactive-engaged*), by re-markable contrast, only four companies in ten see in-house initial vocational training as the “first-choice method” of covering their demand for skilled workers.

### AN ENGAGED APPROACH IMPLIES AN EARLY STARTING TO THE SEARCH

Although companies in Cluster IV (*proactive-engaged*) attribute less importance to in-house initial vocational training for their personnel policy than the comparison groups, they more frequently start prospecting for apprentices a long time in advance than other companies. Around 21 per cent of companies from Cluster IV embark on recruitment one year or more before the commencement of initial vocational training. In the comparison groups (Clusters I to III) only between four and eleven per cent start looking for potential apprentices at such an early stage.

The majority of companies with *indirect-distanced* and *moderate-proactive* recruitment strategies embark on the active prospecting phase six months to one year in advance, while companies with a *defensive-personal* strategy start between three and twelve months ahead of the commencement of initial vocational training.

<sup>2</sup> It should be borne in mind that the survey was carried out at a time when the current economic crisis was only foreshadowed.

## Do the four different recruitment strategies vary in effectiveness?

An interesting question at this juncture is whether variations in effectiveness are found between the identified recruitment strategies. This final line of inquiry is pursued with reference to the companies' responses concerning difficulties that arose in the course of filling apprenticeship places. The questions asked included whether the company managed to attract sufficient applicants, to what extent this group yielded enough apparently suitable young people, whether applicants invited to interview failed to attend, and whether any vacant apprenticeship places were left unfilled (cf. Table 3, cf. p. 17).

The findings are both interesting and surprising. For, as Table 3 shows, the most highly engaged recruiters (particularly Cluster IV) contend with a far higher frequency of vacancy-filling problems than the companies which do not show such keen engagement (particularly Cluster II). Especially massive differences exist with regard to non-attendance of applicants at interviews. Companies with *proactive-engaged* recruitment strategies (Cluster IV) find themselves affected by this problem more than twice as frequently as the average of all companies. Moreover, they are left with unfilled training places three or four times more frequently than all other companies.<sup>3</sup> Once they have filled a training place, however, premature termination of their apprenticeship contracts occurs no more frequently than the average for all companies. In fact, this is a problem that arises disproportionately often for companies with a *moderate-proactive* recruitment strategy (Cluster I). Taking an overall perspective, only companies which adopt a *defensive-personal* approach to finding applicants (Cluster II) report that problems filling vacancies are comparatively infrequent.

## Recruitment behaviour as a reaction to changes in the apprenticeship market

Developments in the apprenticeship market are not yet dramatic but indicate that the issue of filling training places should be taken seriously, as it is likely to become more acute in the foreseeable future for demographic reasons.

<sup>3</sup> At this point, however, it must be noted that the survey only asked whether any vacancies remained, not what proportion of the offered training places were left unfilled. The fact that larger companies are over-represented in Cluster IV must also be taken into account. Since larger companies can generally offer – numerically – more apprenticeship places than smaller ones, there is a higher probability that applicants might fail to attend interviews or a training place remain unfilled. By way of corroboration, unfilled training places are comparatively infrequent in Cluster II, where smaller companies are over-represented.

This will heighten the importance attached to the recruitment of future apprentices. What emerges from the companies' self-reports is that they apply very diverse strategies to the recruitment of apprentices. The spectrum ranges from approaches that can be summed up as rather narrow and undynamic to strategies in which the different companies embrace all the options open to them for attracting applicants with comparatively high intensity. The fact that only a relatively small proportion of companies exhibit the latter recruitment behaviour, whereas the majority are distinctly more casual in their approach to recruiting applicants, can be explained with the rationale that the crisis in the apprenticeship market is only just beginning, and so far situations of heightened competition between companies have only affected particular regions or branches of industry (cf. GERICKE et al. 2008). This also casts a new light on the initially disturbing findings on correlations between recruitment strategies and difficulties in the process of filling vacancies. Seen in this light, the frequent occurrence of vacancy-filling problems in companies which recruit very dynamically seems to be more of a catalyst for their chosen recruitment behaviour rather than the outcome of it. Reinforcing this view, this type of recruitment behaviour is found to be somewhat more prevalent among companies in the eastern German federal states – i. e. regions in which the demographic downturn is already a tangible reality. So far, however, the state of knowledge on company recruitment strategy is too sparse to provide a comprehensive explanation for all its manifestations. In addition to the companies' structural attributes, which prove just as significant here as in GERICKE/KRUPP/TROLTSCH (2009), other factors that certainly come into play are economic and employment structures as well as the business cycle. But young people's expectations concerning vocational training offers and the subsequent usefulness of the acquired certificates and qualifications in the labour market may have an influence on the recruitment behaviour of training companies. ■

### Literature

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