



Digitalisation as an engine for employment

The German labour market is hurtling from one record to the next, with full employment prevailing in many regions. For some companies, a shortage of skilled workers is the greatest obstacle to growth; for others it is even a business risk. In collective bargaining negotiations, employees have the upper hand and are consequently successful in achieving higher wage settlements. Nevertheless, the fear of digitalisation is rampant and doom merchants predict that automation and artificial intelligence will destroy jobs. Consumption would then collapse and the whole economy would flounder. Are the pessimists right or do the facts paint a different picture?

Numerous studies point to the so-called substitutability potential of digitalisation. Over the next ten to twenty years, extreme scenarios suggest that 42 % of jobs in Germany will fall victim to digitalisation. Other forecasts differentiate more strongly according to the respective activities within each professional group. The latter indicate that the threat is less pronounced and that "only" about 15 % of employees subject to social security contributions have a high potential for substitution, i.e. 70 % or more of their activities could, in future, be performed by computers or computer-controlled machines.

The model calculations also reveal that those German federal states with a comparatively high share of manufacturing will be hit hardest: Thuringia, Bavaria, Saarland and Baden-Württemberg. This comes as no surprise, as it is precisely there that extensive deployment of machines is already a reality. Measured in terms of the importance of manufacturing, Hesse ranks approximately in the middle of the pack. Here, such studies imply that 13 % of employees would have to worry about losing their jobs due to digitalisation.

These estimates are indeed cause for concern. But do they really tell the whole story? Most authors stress the limits of their own projections. In this way, calculations only include what is technically feasible. Cost aspects as well as legal and ethical aspects are not taken into account. Moreover, positive effects on employment are not factored in at all. It's hard to imagine jobs that don't exist yet.

However, simply looking at the last ten years gives us reason for optimism. Labour market reforms, the booming global economy and strong domestic demand may well have contributed to the positive employment trend during this period. But a closer look at individual sectors shows us that the structural transformation towards a society dominated by service industries has been the main driver. Employment in the German service sector has risen by 21 % since 2008, while overall employment is up "only" 16 %. However, a distinction must be made here as well. Not all service industries have created jobs since the financial crisis and not all manufacturing sectors have been growing at a subdued pace. Construction has been the major outperformer among non-service industries. In the service sector, "information/communication" has shown particularly strong growth and momentum in the fields of education and scientific and technical services should not be discounted either.

Strong growth in the construction sector is obvious to everyone and is particularly evident in the cities. For years, booming demand for housing has been fuelled by an increasing population and a lack of new construction activity. Low interest rates and a buoyant labour market have done the rest. On average, employment in the German construction sector has risen by 15 % since 2008; and in Frankfurt, for example, by as much as 25 %. This increase makes it clear that, while everyone is talking about structural change towards more services and automation, even classic manufacturing stalwarts can serve as growth and job engines.

AUTHOR

Dr Gertrud R. Traud
Chief Economist/
Head of Research
phone: +49 69/91 32-20 24
research@helaba.de

EDITOR

Dr. Stefan Mitropoulos

PUBLISHER

Helaba
Landesbank
Hessen-Thüringen
MAIN TOWER
Neue Mainzer Str. 52-58
60311 Frankfurt am Main
Tel: +49 69/91 32-20 24
Fax: +49 69/91 32-22 44

This publication was very carefully researched and prepared. However, it contains analyses and forecasts regarding current and future market conditions that are for informational purposes only. The data is based on sources that we consider reliable, though we cannot assume any responsibility for the sources being accurate, complete, and up-to-date. All statements in this publication are for informational purposes. They must not be taken as an offer or recommendation for investment decisions.

In the "information/communication" sector the shift towards services is having a direct impact. Contrary to apocalyptic doomsday prophecies, digitalisation is leading to more jobs in this field. Since 2008, no other sector has shown such strong employment growth – by 24 % in Germany as a whole. The development in the banking centre of Frankfurt was even more impressive, with a 33 % increase in jobs.

The banking industry is one of the service sectors that is a loser in this structural change. Profits are being adversely affected by low interest rates and high costs resulting from stricter regulatory and supervisory requirements. In addition, the changing preferences of the population are leading to a paradigm shift in the demand for banking services. Some products are either no longer needed and others are provided by FinTechs. In order to keep up, banks must also focus on digitalisation.

For many years now, the consolidation process in the banking sector has led to a considerable decline in the number of institutions. However, in terms of the number of employees, its effect has been somewhat muted. In Germany, 2 % of jobs have been lost in the last ten years; in Frankfurt there has even been an increase of 2 %. This may be related, in particular, to stringent regulatory and supervisory requirements – but also to the need for digitalisation.

Structural change has always existed and digitalisation is just one particular manifestation of this. There is no doubt that it is changing the world and that there will be winners and losers. Overall, though, the data that have been observed for several years refute the forecasts of the doom and gloom merchants. On aggregate, far from being a job killer, digitalisation appears to be creating engines of employment. Incidentally, this has been the case with every technological revolution in history. ■