

Automated decision-making in public administration

– effective and efficient, but inadequate control and follow-up

Summary and recommendations

The Swedish National Audit Office has audited whether central government agencies' automated decision-making is effective and efficient, without jeopardising legal certainty in decision-making. The audit included parental benefit at the Swedish Social Insurance Agency, annual income taxation of private individuals at the Swedish Tax Agency and driving licence learner's permits at the Swedish Transport Agency.

The overall conclusion is that government agencies' automated decision-making has led to increased effectiveness and efficiency and that fundamental legal certainty aspects have improved to some extent. However, there are shortcomings in the agencies' processing of cases with a high risk of fraud and error. In addition, there is far too limited follow-up of the correctness of automated decisions. There is therefore a risk that resources for manual control and follow-up have too frequently been accorded too low a priority. There are also shortcomings in the division of responsibility for automated decision-making processes, as well as a lack of clear and readable documentation of the automated process.

Audit findings

Automated decisions are common and have existed since the 1970s

The audit shows that automated decisions are common in public administration and have existed since the 1970s. The 13 agencies that responded to the Swedish NAO's survey made 148 million decisions in relation to private individuals and companies in 2019. Of these, 137 million were included in automated decision-making processes, of which 121 million decisions were fully automated. The 13 agencies have automated decision-making in 112 decision-making processes. Although the decisions are usually automated, no decisions are made using artificial intelligence (AI). The agencies audited by the Swedish NAO – the Swedish Social Insurance Agency, the Swedish Tax Agency and the Swedish

Transport Agency – accounted for 80 per cent of the agencies’ automated decisions, in a total of 46 decision-making processes.

Automation leads to faster and cheaper decisions, but the documentation has shortcomings

The automation of decision-making has led to increased efficiency by allowing private individuals to receive decisions faster without increasing administrative costs. The administrative costs of parental benefit, income taxation of private individuals and learner’s permits have even decreased. However, it is only possible to establish that the cost reduction is due to automation in relation to parental benefit.

Moreover, the audit of parental benefit, income taxation and learner’s permits shows that the Social Insurance Agency, the Tax Agency and the Transport Agency have not always followed up whether automation has had the desired effects on operations and finances, and that the documentation of the follow-up that has taken place has shortcomings.

Inadequate control and follow-up in the automated decision-making processes

The Social Insurance Agency, the Tax Agency and the Transport Agency work systematically to ensure that the IT systems in the automated decision-making processes function correctly. To ensure correct information in the cases, the authorities have programmed controls in the e-services, automatic controls in the IT systems and controls carried out by case officers.

On the other hand, the agencies’ manual controls of cases that have a high risk of fraud and errors are inadequate, and the fully automated decisions are only monitored to a limited extent. As a result of the inadequate controls and follow-up, the agencies do not have a sufficiently good framework for detecting and rectifying incorrect decisions.

Automated decisions have improved fundamental legal certainty aspects, but further work is required

Automated decision-making has to some extent improved fundamental legal certainty aspects. For example, all cases go through the same automatic controls and are handled manually based on the same sampling criteria. Thus the manual processing has also become more uniform, which contributes to more equal treatment.

However, there are certain legal certainty aspects that are not fully taken care of by the three agencies. These concern the fact that in some cases there is no clear and readable documentation of automated decisions and that equivalent cases are not

always handled in the same way in the manual controls. The agencies have also identified that a critical factor in ensuring correct and legally certain automated decisions is the ability to translate legislation into machine code.

Measures should be taken to enable more agencies to introduce efficient, legally certain and correct automation of decision-making

Overall, the audit shows that there is a need to produce knowledge bases and support for agencies so that the central government administration's automated decision-making will have better conditions for being effective and efficient, legally certain and correct.

Recommendations

The Government should instruct the Swedish Agency for Digital Government to develop knowledge bases for how work with automated decision-making processes can be structured to provide better conditions for effective and efficient, legally certain and correct automated decisions.

The Swedish Social Insurance Agency, the Swedish Tax Agency and the Swedish Transport Agency should follow up their automated decisions in order to ensure that they are correct. In addition:

The Swedish Social Insurance Agency should

- continue its work of implementing controls based on risk profiles in parental benefit to prevent incorrect payments.
- continue the work of ensuring clear documentation of the automated processing.

The Swedish Tax Agency should

- review the handling and scope of manual controls based on risk sampling, aimed at counteracting fraud and errors, and systematically monitor their outcomes.
- clarify the responsibility for automated decisions.

The Swedish Transport Agency should

- consider increasing the level of automation for driving licence learner's permits to achieve increased efficiency.