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Usage of ICT solutions in Public Administration to support social policy in developing countries – case of Montenegro

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Author's short biographies



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Tamara Djuričković – is a Phd, advisor at Agency for Control and Quality Assurance of Higher Education of Montenegro. She is the author of many research paper, books and other publication in the field of ICT and Economics

Introduction

- We investigate whether ICT solutions that support public policy can be successful under conditions of limited resources and contribute to greater social justice and thus to development.
- Can ICT projects be successfully implemented in developing countries, despite the great risk of failure?
- How and to what extent successful ICT projects contribute to the organizational transformation and more equitable distribution, i.e., how they impact the reduction of poverty and development?

The Literature Review

- Capability Approach (CA) as a measure of freedom, and thereby of development, instead of using GDP which is merely a statistical indicator (Sen, 1999).
- ICT contributes to economic development and the improvement of living standards, as well as to the freedom of the individual and the community, and the enhancement of social well-being (Chipidza & Leidner, 2019).
- Impact of ICT in PA on poverty, law, and justice because, based on research and a review of the papers published so far, these are the least dealt-with areas (Heeks, 2022).

The Literature Review

- How, in general, can ICT in PA help the poorest members of society and how can their poverty be mitigated?
- ICT solutions in developing countries rarely end up being successful projects (Heeks, 2002).
- Experience shows that there are more failed solutions than successful ones. Thus, in an analysis of 78 studies as many as 64% of the solutions/projects have proved to be either partially or totally unsuccessful (Chipidza and Leidner, 2019),

The Literature Review

- The character of ICT investments shows that the costs of development and implementation are extremely high, with the effects coming either not very quickly or not at all (Krishna & Walsham, 2005).
- What can be done to design investments in ICT solutions in developing countries so that they achieve the greatest possible effect and do not represent a waste of valuable resources (Hsieh, Rai & Keil, 2008)?

The Case Study

- Social Welfare Information System – SWIS (popularity called “Social Card” in Montenegro)
- The basic project was implemented in Phase I, which was completed in 2014 and upgrades, monitoring, and advancement were completed in Phase II in 2017
- Project was developed and implemented in partnership with the United Nations Development (UNDP)

Research Question(s)

- The main RQ: Under conditions of limited resources in developing countries, despite the high risk of failure, is it worth investing in ICT solutions that support public services, and can thereby increase social justice, reduce poverty and thus ensure development?
- 1) How and using what measures can the success of these projects be evaluated 2) How does the quality of management and implementation affect the success rate? 3) Can these projects have an impact on poverty alleviation and greater social justice?

Methodology

- Quantitative and Qualitative methods
- Descriptive statistics to evaluate the evolution of the social benefit data series, while measuring the effects and quality of social policy before and after the introduction of the solutions and systems.
- Financial and Economic Cost–Benefit Study (CBS), as well as ROI (Return of Investment) analysis to evaluate the project's success.

Methodology

- Opportunity Cost Analysis.
- Qualitative case study methods - narrative method supplemented by semi-structured individual interviews.

Methodology

- Qualitative methods and financial analysis are used to test the feasibility of investing in an ICT solution by evaluating the financial savings achieved.
- This paper also includes an investigation of the transformational effects achieved (the systematic improvements), as well as the analysis of the level of satisfaction of the stakeholders (analysis of interviews and official reports). We also approach the effects on the quality of social policy through the achieved level of the average transfers per individual.
- Cost-Benefit Analysis (CBA), ROI, and opportunity cost analysis are used as methods for investment planning and will enable us to evaluate the success of an investment that has already been realised, making the procedure easier and simpler.

Results and Discussion

- We show that the project was economically justified. We do this through cost–benefit analysis of the results, or more precisely through an analysis of the financial effects, as well as an economic analysis of the structural and transformational effects of the project. In this way we reply to the first segment of our research question.
- Second segment of the research question is answered through qualitative analysis of project management as a factor of success.
- Finally, the last segment of the research question is assessed through an analysis of the impact of the project on more equitable distribution and a reduction of poverty.

Results and Discussion

Analysis of the transformational effects of the structural changes to which the project contributed

- Benefits of digitalisation in the social and child welfare system – greater inclusion
- Benefits of digitalised documents and digitalised data sharing – higher data validity
- Benefits of batch processing solutions – increased operation speed
- Operating benefits – reduced inclusion error
- Benefits for stakeholders
- IT revival of the environment

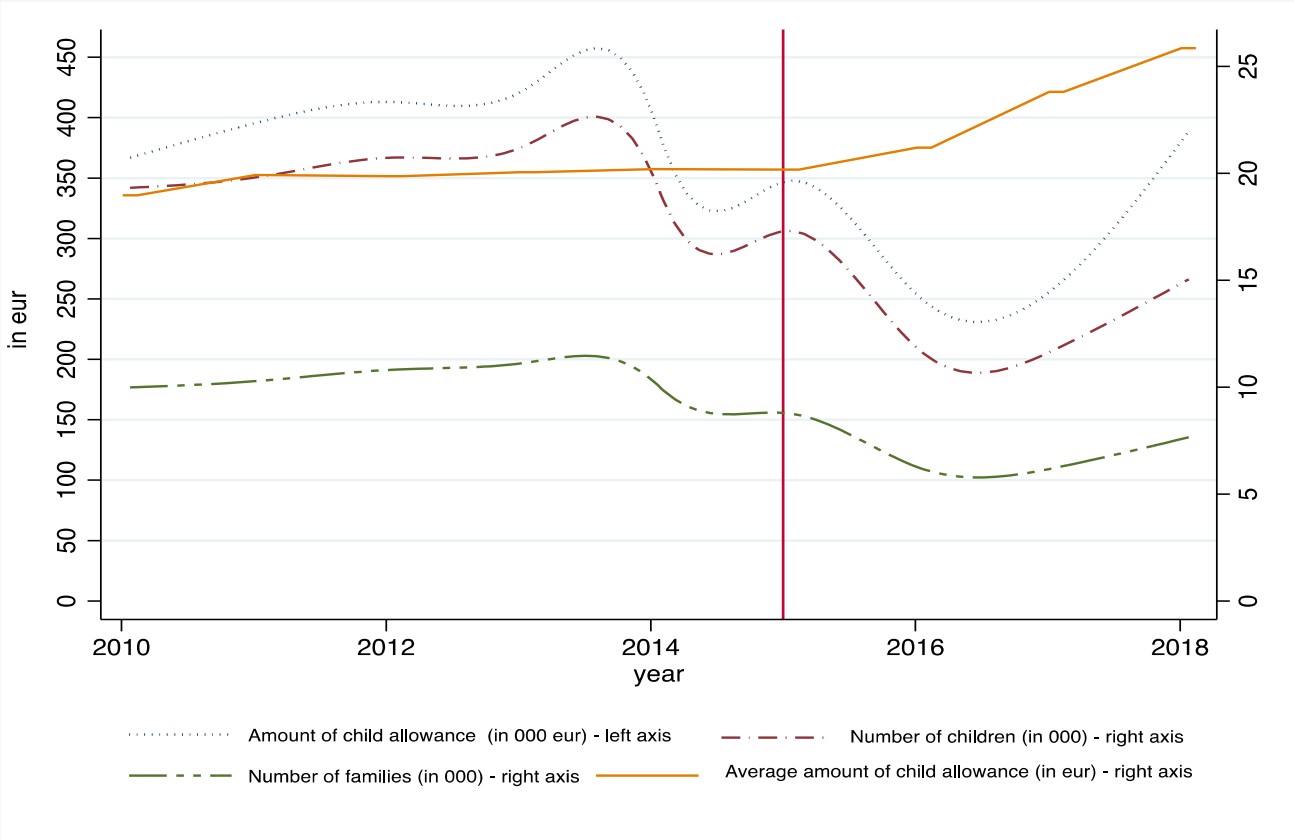
Results and Discussion

The quality of project management as a factor of success – qualitative analysis

- As a capital activity in the structural reform sector, the project was directly supervised by the Government
- Project management is the responsibility of the Government, UNDP is responsible for the implementation of the project

Results and Discussion

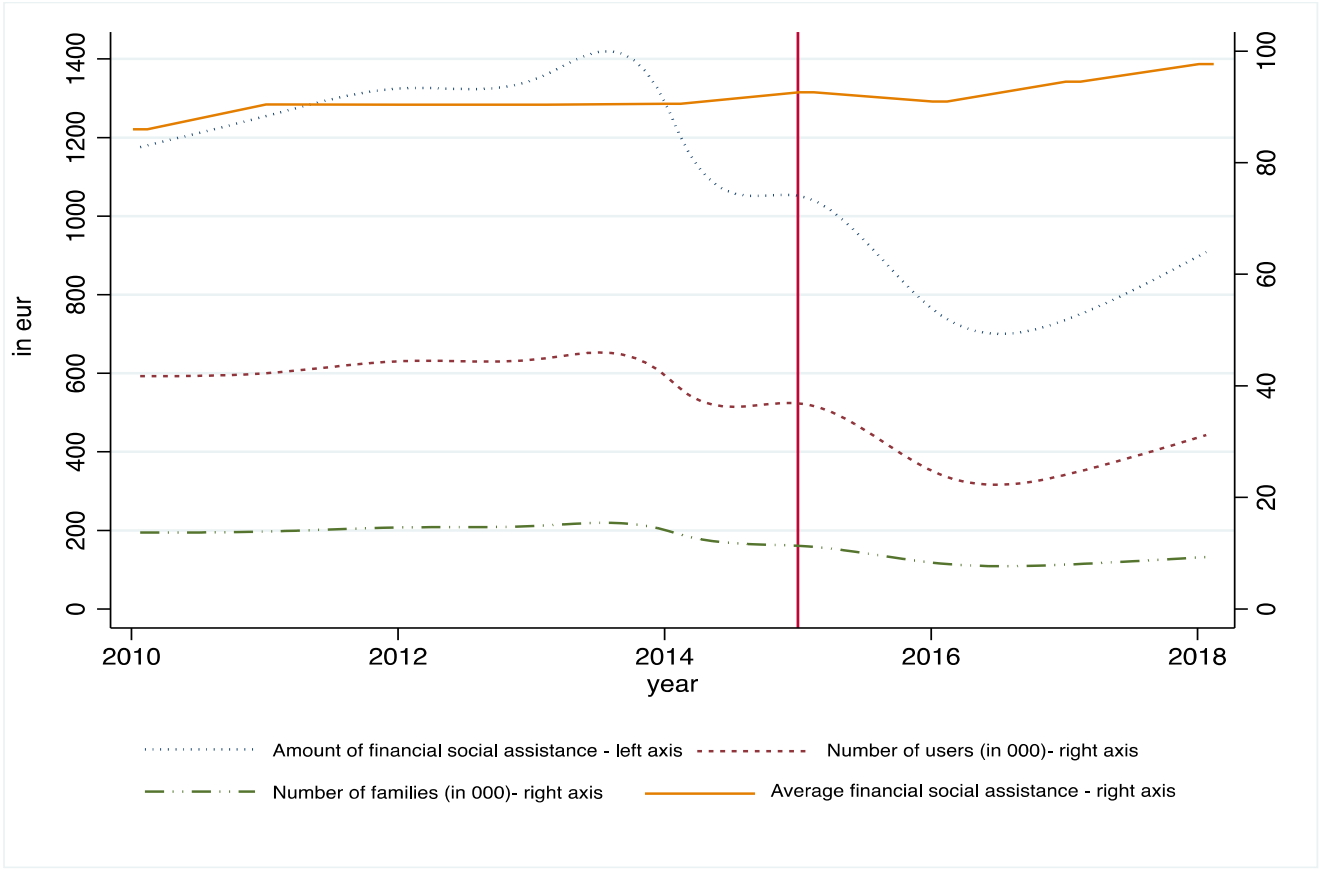
Fig. 1 Child allowance



Source: Ministry of Labour and Social Welfare, author's calculation

Results and Discussion

Fig. 2 Financial social assistance

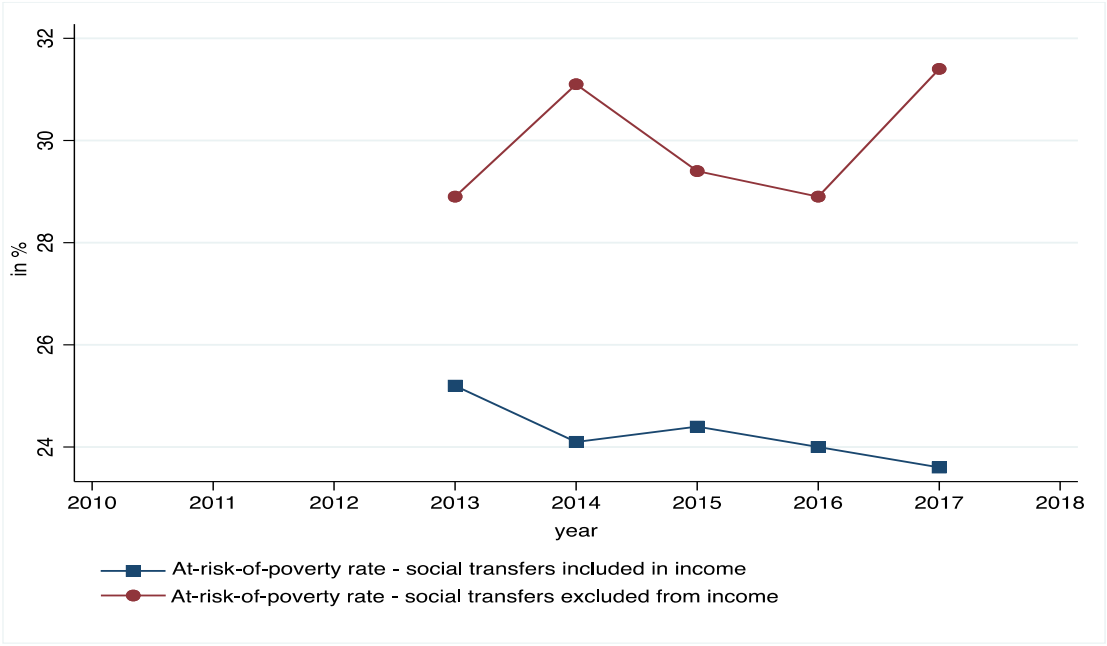


Source: Ministry of Labour and Social Welfare, author's calculation

Results and Discussion

The impact of SWIS on the better allocation scarce resources and social justice

Fig. 3 At-risk-of-poverty rate before and after social benefits



Source: Ministry of Labour and Social Welfare, author's calculation

Implications

- This study offers theoretical, methodological and practical implications.
- In terms of theory, this study expands the body of empirical research on ICT and development and it can be an incentive for other researchers to research how to ICT can support to public policies, in conditions of limited resources.
- A methodological contribution was provided, by cross-referencing multidisciplinary knowledge and theories in the fields of IS, economics, politics, and sociology, as a useful guide to a holistic approach to research into ICT and development.

Implications

- In practical terms, the contribution was to demonstrate, through the good practice of the SWIS project, how developing and managing an ICT project should be approached in developing countries and how to evaluate and value its success.

Suggestions for Further Research

- The research in this paper was concentrated on only two forms of social transfers in Montenegro, appropriate for the analysis, that directly concern the poor, but it would be useful to include all other transfers generated by SWIS in the overall policy assessment package, and then a more correct conclusion could be made methodologically.

Suggestions for Further Research

- One isolated case of a successful system has been tested, so the results should be confirmed by a set of similar solutions in another set of countries that are at approximately the same level of development. A parallel analysis of multiple solutions in an approximately similar environment would probably lead to more valid findings.

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