



College of Economics and Social Sciences in Plock

WARSAW UNIVERSITY OF TECHNOLOGY

RESEARCH TEAMS

AT THE WARSAW
UNIVERSITY
OF TECHNOLOGY

R&D PORTFOLIO





Professor Adam Woźniak,
PhD DSc Eng., Vice Rector
for Development for the
2020-2024 term of office

FOREWORD BY THE VICE-RECTOR FOR DEVELOPMENT AT THE WARSAW UNIVERSITY OF TECHNOLOGY

Cooperation between academic and business communities is one of the key drivers of knowledge transfer, promoting an innovative economy that meets the needs of contemporary society and contributes to the growth of our country. One important way in which this cooperation is pursued is by building a platform for communication between science and business, for establishing contacts and exchanging experience, and for transforming needs into real-life solutions.

The Warsaw University of Technology not only has unique research infrastructure and equipment, but, above all, robust research teams, actively cooperating as part of domestic and international research projects, development and industrial research efforts with leading partners representing various sectors of the economy. It is thanks to them that the Warsaw University of Technology is ranked first among technology higher-education institutions in Poland, especially in applied research, which results in patents and innovations.

I look forward to your reading this latest edition of the Catalogue of Research Teams at the Warsaw University of Technology, and I hope that it will inspire our cooperation.

FOREWORD BY THE HEAD OF THE COLLEGE

The research focus of the College of Economics and Social Sciences is on two scientific disciplines: economics and finance, and management and quality sciences. These areas include many scientific specialisations within which research is conducted by the College staff in cooperation with the Faculty of Management of the Warsaw University of WUT. The main scientific specialisations pursued at the College of Economics and Social Sciences include: economics of consumption, labour market, finance of medical entities, and management in healthcare. Conduction of research in these areas appears indispensable in order to better understand the reality around us, and then to shape it in such a way as to balance economic and technological development with social needs in line with the principles of sustainable development.

The scientific activity of our staff is reflected in articles published in national and international journals, scientific monographs and papers presented at national and international scientific conferences. Among our staff are also authors of many textbooks recognised on the publishing market. Scientific research is carried out within the framework of national and international projects, including Horizon 2020 and the Excellence Initiative Research University programmes. Every year we also organise an international scientific conference "Contemporary problems of economic development" attended by representatives of other universities, both Polish and foreign, and economic practitioners. The objective of the conference is to present scientific achievements and practical experiences, and to exchange views on selected issues in the field of social sciences, including economics, finance and management. The conference provides an excellent opportunity to confront theory with business practice and to establish scientific cooperation with representatives of other research centres.

You are invited to cooperate!



Magdalena Kludacz-Alessandri,
PhD, Associate Professor,
Head of the College of
Economics and Social Sciences



■ TABLE OF CONTENTS

▪ GOSDOM	PAGE 6
▪ LABOUR MARKET RESEARCH TEAM	PAGE 8
▪ HEALTHCARE MANAGEMENT TEAM	PAGE 10



GOSDOM

RESEARCH TEAM OF THE WARSAW UNIVERSITY OF TECHNOLOGY

SOCIAL SCIENCES; ECONOMICS AND FINANCE

#HOUSEHOLD #CONSUMER #CONSUMPTION #MARKET
#CONSUMER BEHAVIOUR #CONSUMPTION TRENDS

The team established at the College of Economics and Social Sciences at the Warsaw University of Technology brings together staff specialising in a widely understood economics of consumption.

The team members have gathered experience in conducting studies and projects involving analyses of household budgets. The team invites public utility institutions, municipal and commune offices, economic entities operating on the consumer goods and services market, all entities rendering services to households, as well as individual consumers, to join the project implementation process.

Therefore, one of the team's specialisation fields is the use of advanced statistical and econometric data processing methods which provide new opportunities for gaining knowledge from large databases.

CONTACT

Marlena Piekut, PhD, DSc, Eng.
marlena.piekut@pw.edu.pl
(+48) 607 501 395
repo.pw.edu.pl/info/author/WUT61511/Marlena%2BPiekut+title?lang=pl
repo.pw.edu.pl/info.seam?id=WUT61479&afil=&lang=pl



SERVICES OFFERED

- analyses of the functioning of different types of households, especially with regard to their income, expenditure, durable goods and food consumption
- participation in joint research and development projects, including funding from the European Union programme, dealing with the functioning of households
- training sessions and workshops for businesses on selected aspects of consumer behaviour on the consumer goods and services market
- training sessions disseminating the knowledge on the problems related to functioning in different types of households, addressed to employees and officials of public administration bodies

RESEARCH INFRASTRUCTURE

- Statistica software for statistical analysis

SELECTED PUBLICATIONS

- Piekut M., Patterns of Energy Consumption in Polish One-Person Households. *Energies*, 13(21), 5699, 2020.
- Piekut M., The segmentation of Polish one-person households due to consumption, *Sustainability*, 11(1), pp. 177, 2019.
- Piekut M., One-person households in Poland: Functional determinants and trends of change [Jednoosobowe gospodarstwa domowe w Polsce: Uwarunkowania funkcjonowania, tendencje zmian]. CeDeWu, 2019.
- Piekut M., Consumption patterns by type of rural households in 2004–2014 [Wzorce konsumpcji według typów wiejskich gospodarstw domowych w latach 2004–2014], Difin, 2017.
- Osiecka K., The impact of economic factors on the change in the structure of Polish households expenditure-use of Markov chains (No. 86/2017), Institute of Economic Research Working Papers, 2017.





LABOUR MARKET RESEARCH TEAM

AT THE WARSAW UNIVERSITY OF TECHNOLOGY

ECONOMICS AND FINANCE

#REGIONAL LABOUR MARKETS #LOCAL LABOUR MARKETS
 #EMPLOYMENT #DEMOGRAPHY VS. LABOUR MARKET
 #UNEMPLOYMENT #GDP VS. EMPLOYMENT AND UNEMPLOYMENT
 #ACTIVE LABOUR MARKET POLICY #LABOUR MARKET COMPARISONS

The team is composed of research and teaching staff from the College of Economics and Social Sciences at the Warsaw University of Technology in Płock. It specialises in labour market research with particular focus on regional and local labour markets.

Diagnostic evaluations of the labour market situations performed using an indicator approach constitute an important research direction. The research is centred on analysing basic economic labour market indicators (such as employment, unemployment, labour supply, demand for labour, wages and salaries) in terms of the prevailing trends and determinants, as well as their internal structure. The research makes use of a widely understood quantitative approach.

The potential clients of the team include regional and local authorities in Poland, and in particular district offices, commune authorities, provincial and marshal offices, as well as district and provincial employment offices.

CONTACT

Professor Eugeniusz Kwiatkowski, PhD, DSc, Eng.
 eugeniusz.kwiatkowski@pw.edu.pl
 (+48) 24 367 21 26
<https://www.pw.plock.pl/Badania-i-nauka>

SERVICES OFFERED

- diagnosis of the situation on the local/regional labour market
- determinants of and barriers to the local and regional labour market development
- surplus and shortage occupations on the regional and local labour markets
- labour market standing of groups of persons
- groups facing the highest risk of unemployment
- assessment of the effectiveness of active labour market programmes
- survey of the regional employment structures competitiveness
- significance of minimum wages for the local and regional labour market situation

RESEARCH INFRASTRUCTURE

- Statistica software
- SPSS software



SELECTED PROJECT

- Diagnostic analysis of the state of development of the Płock District for the preparation of the "Development Strategy of the Płock District for 2021–2027" (District Office in Płock, 2021)

SELECTED PUBLICATIONS

- Jagodziński A., Krzętowska A., Dysfunctions in the field of human resources development and motivation [Dysfunkcje w sferze rozwoju i motywowania zasobów ludzkich], Research Papers of the State Higher School of Vocational Education in Płock. Economic Sciences, XXV, pp. 351–365, 2017.
- Kapela M., Labor costs and localization in global value chains: comparative analysis and conclusions for Poland, Foundations of Management, 11, pp. 229–238, 2019.
- Krzętowska A., Kwiatkowski E., Economic development determinants of the subregions of the Mazowieckie Province [Determinanty rozwoju gospodarczego podregionów w województwie mazowieckim], In: Żemigła M. (ed.): Development of the Mazowieckie Province. Regional and subregional differences [Rozwój województwa mazowieckiego. Różnice regionalne i podregionalne], Warsaw University of Technology, College of Economics and Social Sciences in Płock, Warsaw, 2021 (in press).
- Kucharski L., Kwiatkowski E., The Role of Labour Inputs in Contemporary Trends of Economic Growth, Polityka Społeczna, Tom 16, nr 1 (EN), pp. 2–7, 2020.
- Kwiatkowski E., Kwiatkowska E., Diversification of the level and nature of unemployment in Polish districts [Zróżnicowanie poziomu i charakteru bezrobocia w przekroju powiatów w Polsce], Research Papers of the Cracow University of Economics, 3(987), pp. 7–29, 2020.
- Osiecka K., Kapela M., The impact of labour costs on Polish exports [Wpływ kosztów pracy na polski eksport], Przegląd Zachodni, 1(366), pp. 113–130, 2018.



HEALTHCARE MANAGEMENT TEAM

AT THE WARSAW UNIVERSITY OF TECHNOLOGY

MANAGEMENT AND QUALITY SCIENCES

#HOSPITAL COSTS ACCOUNT #HEALTHCARE FINANCING #TELE-MEDICINE
#VALUATION OF HEALTHCARE SERVICES #HOSPITAL PERFORMANCE MEASUREMENT
#MEDICAL STAFF MANAGEMENT #HEALTHCARE ENTITIES ACCOUNTING
#RESOURCE MANAGEMENT IN HEALTHCARE #COMPUTERISATION OF HEALTHCARE

The team is composed of the staff from the College of Economics and Social Sciences and the Faculty of Management at the Warsaw University of Technology in Płock. It specialises in conducting research in the field of economics and finance of medical entities as well as management in healthcare.

Issues related to cost accounting, budgeting, modern tools for hospital performance measurement and methods of valuation of health services constitute an important research direction. The team also conducts research in the field of human resources management in healthcare.

Research in the field of tele-medicine is now of particular importance in the Team's work, as part of a project concerning a model of remote work for healthcare institutions under the conditions of limited social mobility.

CONTACT

Magdalena Kludacz-Alessandri,
PhD, Associate Professor
magdalena.kludacz@pw.edu.pl
(+48) 723 094 049

SERVICES OFFERED

- diagnosis of the situation on the local/regional healthcare market – healthcare entities, medical staff, medical apparatus
- support for the development of accounting policy and cost accounting for healthcare entities
- measurement and evaluation of the achievements of healthcare entities
- preparation of financial analyses for healthcare entities
- patient satisfaction surveys and statistical analyses of survey results
- consulting and expert opinions on financial problems of healthcare entities, restructuring, and development of strategies
- conduction of qualitative and quantitative studies for various stakeholders in the healthcare system

RESEARCH INFRASTRUCTURE

- Statistica software
- SPSS + AMOS software
- MACQDA software

SELECTED PROJECT

- Remote work model for health care facilities ensuring continuous healthcare in conditions of limited social mobility (IDUB against COVID-19, 2020–2022)

SELECTED PUBLICATIONS

- Hawrysz L., Gierszewska G., Bitkowska A., The Research on Patient Satisfaction with Remote Healthcare Prior to and during the COVID-19 Pandemic, *International Journal of Environmental Research and Public Health*, 18(10), 2021.
- Kludacz-Alessandri M.A., A model of inpatient healthcare services valuation [Model wyceny świadczeń zdrowotnych dla lecznictwa szpitalnego], *Wolters Kluwer Polska, Warsaw*, 2017.
- Kludacz-Alessandri M., Baran W., Cygańska M., Raulinajtys-Grzybek M., The degree of development of cost accounting in the context of hospital information systems [Stopień rozwoju rachunku kosztów w kontekście systemu informacyjnego szpitala], In: *Theoretical Zeszyty Teoretyczne Rachunkowości*, 159(103), 2019.
- Kludacz-Alessandri M., Hass-Symotiuk M., Kočíšová K., Use of the DEA method to verify the performance model for hospitals, In: *E & M Ekonomie a Management*, 21(4), 2018.
- Kludacz-Alessandri M., Hawrysz L., Korneta P., Gierszewska G., Pomaranik W., Walczak R. [et al.], The impact of medical teleconsultations on general practitioner-patient communication during COVID-19: A case study from Poland *PLoS ONE*, 2021.
- Kočíšová K., Cygańska M., Kludacz-Alessandri M., The application of data envelopment analysis for evaluation of efficiency of healthcare delivery for CVD patients, In: *E & M Ekonomie a Management*, 23(2), 2020.
- Korneta P., Kluczyk-Alessandri M., Walczak R., The Impact of COVID-19 on the Performance of Primary Health Care Service Providers in a Capitation Payment System: A Case Study from Poland, In: *International Journal of Environmental Research and Public Health*, 18(4), 2021.
- Raulinajtys-Grzybek M., Baran W., Cygańska M., Kludacz-Alessandri M., Macuda M., A model for assessing hospital cost accounting maturity - conceptualization and empirical use [Model oceny dojrzałości rachunku kosztów w szpitalu – koncepcja i empiryczne wykorzystanie], In: *Zeszyty Teoretyczne Rachunkowości*, 102(158), 2019.
- Walczak R., Piekut M., Kludacz-Alessandri M.A. [i in.], Health care spending structures in Poland, Latvia, Lithuania and Estonia over the years as compared to other EU countries, In: *Foundations of Management*, 10, pp. 45–58, 2018.



Catalogue of Research teams at the Warsaw University of Technology

R&D portfolio of the College of Economics and Social Sciences in Płock

Graphic design and typesetting:

Klaudyna Nowińska, Gabriela Hołdanowicz, Marcin Karolak, Aleksandra Wycisk, PhD,
Research and Analysis Department of the Centre for Innovation and Technology
Transfer Management at the Warsaw University of Technology at WUT

Coordination:

Katarzyna Modrzejewska, PhD (Centre for Innovation and Technology Transfer Management
at the Warsaw University of Technology at WUT)

Issue 1

Warsaw, 2022



**Centre for Innovation
and Technology Transfer
Management**

WARSAW UNIVERSITY OF TECHNOLOGY

**Warsaw University
of Technology**