TRANSCOM 2025: 16th International Scientific Conference on Sustainable, Modern and Safe Transport

Temporal Trends in Household Consumprion of Transport, Recration and Cultural Services a COICOP Analysis

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INTRODUCTION

Paper examines temporal trends in household consumption of transport, recreation, and cultural services across European Union countries from 1988 to 2020 using the Classification of Individual Consumption According to Purpose (COICOP) framework. Analyzing expenditure data from 34 countries, the research investigates how consumption patterns have evolved and what they reveal about changing consumer priorities. The results show significant positive correlations between spending on transport services and recreation/cultural activities, suggesting these categories are closely linked in household budgets. Expenditures on recreation services were also associated with transport insurance spending, likely to reflect travel-related behaviors. A generalized linear model further revealed that transport-related expenditures significantly influence recreation and cultural service spending, although with varying effects across transport modes. Rail and sea transport showed positive relationships with recreational spending, whereas road transport had a negative association. The findings highlight the increasingly intertwined nature of mobility, leisure, and cultural consumption in European households during the study period. They also suggest potential trade-offs in household expenditure decisions, with higher transport spending linked to increased recreation and culture expenditures.

MATERIALS, METHODS & IMPLEMENTATION

The paper analyzes the structure of consumption expenditure by COICOP (Classification of individual consumption by purpose) in EU countries (Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, Norway, United Kingdom, Montenegro, North Macedonia, Sebia, Türkiye, and Kosovo). In years 1988 – 2020 (1988;1994;1999;2005;2010;2015;2020).

RESULTS

The Wald Chi-Square test assesses statistical significance. Transport-related expenditure has a significant positive relationship with recreational and cultural services expenditure. Households with higher transport spending tend to allocate more financial resources to recreation and culture - RECUL. The equation (1) represents a regression model of RECUL (Recration and culture) predicted by expenditures on Transport by Rail (PTR), this has a positive effect on recreation and culture. Expenditures on Passenger Transport by Road – with negative effect on RECUL and expenditure on Passenger Transport by Sea Inland with positive effect on RECUL. The Other Passenger Transport Services (OPTS) has a positive effect on RECUL as well. The terms PTA (Passenger Transport by Air), CPT (Combined Passenger Transportation), INSTRA (Insurance Connected Transportation), and ACOMMS (Accommodation Services) are mentioned but not included in the equation, indicating they are not significant in this model.

$$RECUL = 16{,}311 + 1{,}989PTR - 0{,}508PTROAD + 4{,}340PTSEAINL + +2{,}384OPTS + 2{,}645RECULSER \quad (1)$$

*PTA Passenger transport by air; CPT – combined passenger transportation; INSTRA – Insurance connected transportation; ACOMMS; – not significant.

CONCLUSION & IMPLEMENTATION PATH

The analysis of household consumption patterns in transportation, recreation, and cultural services across European Union countries from 1988 to 2020 reveals significant insights into evolving consumer priorities and preferences. Utilizing the COICOP framework, the study highlights the intertwined nature of mobility, leisure, and cultural consumption. The correlation analysis indicates strong positive relationships between expenditures on transport services and recreation and culture, suggesting that higher spending on transport is associated with increased spending on leisure activities. The findings also show that expenditures on recreation services are linked to the need for transport insurance, reflecting travel-related spending behaviours.

ACKNOWLEDGEMENTS

This paper was prepared under the grant support of VEGA project 1/0333/24 and KS 2025 Institutional Research.