

## Sociological imagination on green technology: the influence of occupational and professional background on the architectural photovoltaic application

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### GOAL OF THE STUDY

The study examines how individuals' occupational and professional backgrounds affect their perception and willingness to adopt photovoltaic (PV) technology in residential units.

### METHODOLOGY OF THE INVESTIGATION

Questionnaire: Developed and refined based on literature and expert feedback.

Data Collection: Surveyed 420 valid responses from the building industry and other sectors in Jordan.

Analysis: Used SPSS for descriptive statistics, regression, correlation, and one-way ANOVA.

### MAIN RESULTS FROM THE STUDY

**Knowledge and Acceptance:** The level of knowledge about PV systems is the most significant factor influencing perception and acceptance. Professionals in the building industry recorded higher positive percentages towards PV technology compared to those from other fields (63.26% vs. 52.31%).

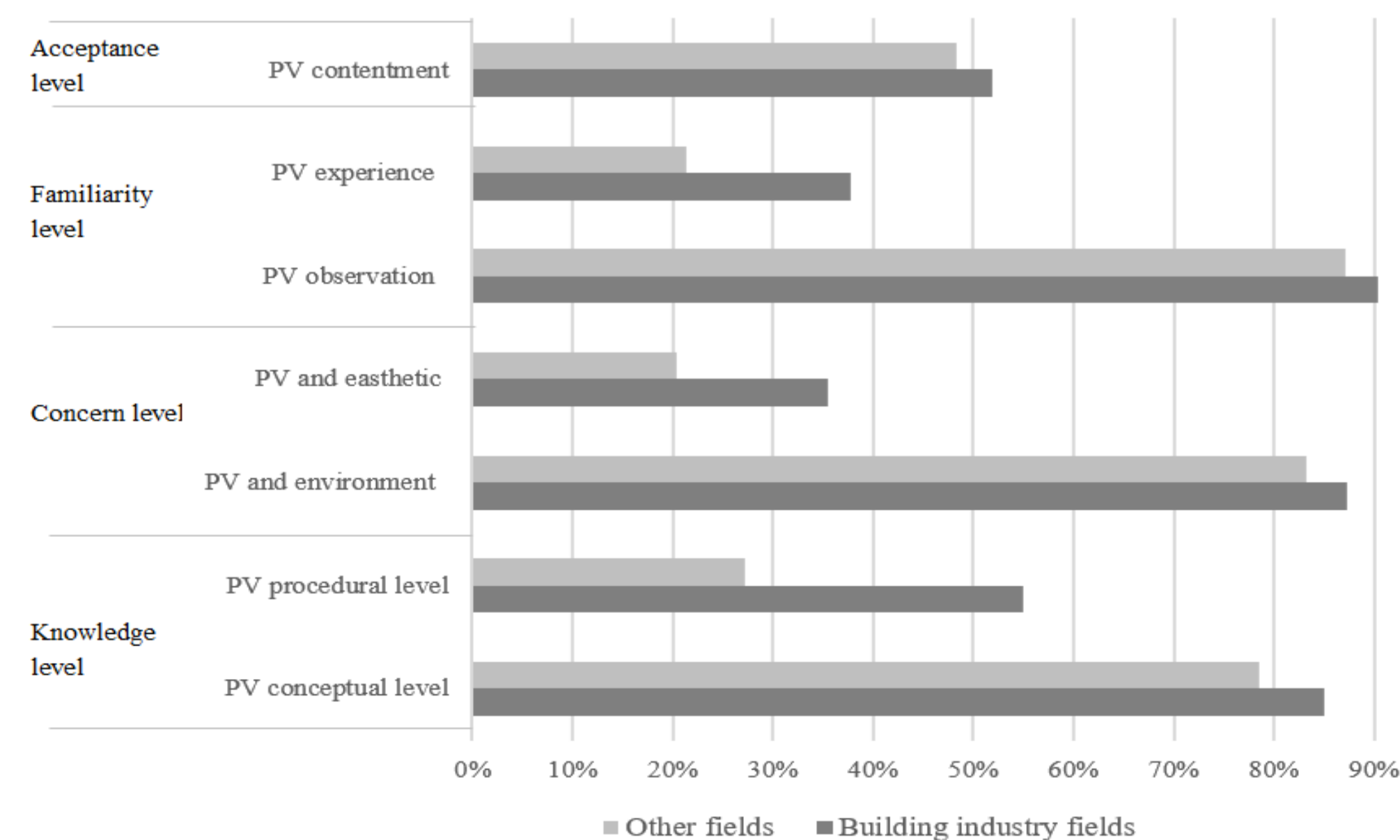


Fig. 1. The perception of PV technology by Professional Background.

The building industry professionals have a significantly higher perception of PV technology, highlighting the role of professional background in shaping attitudes towards PV adoption.

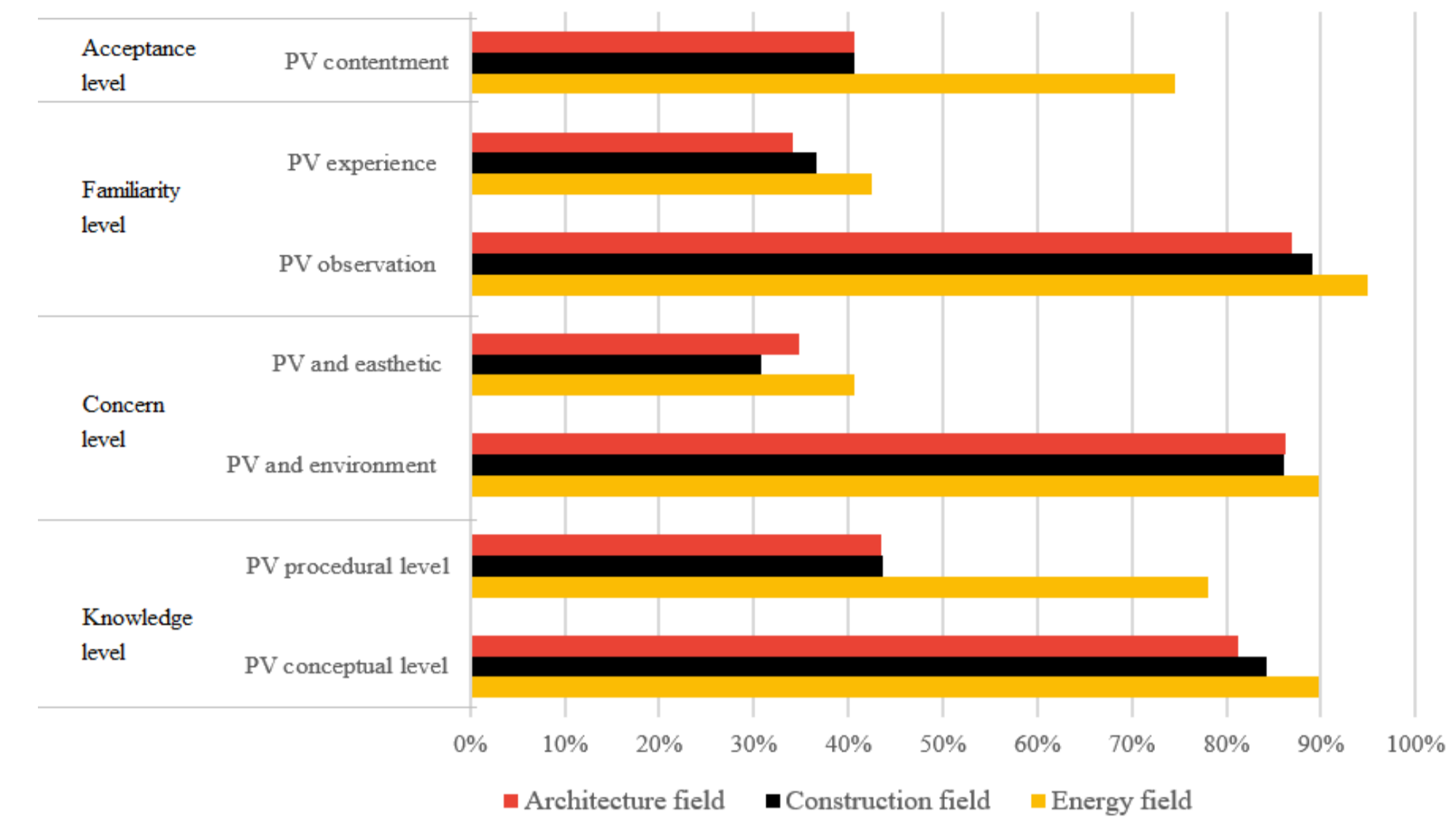


Fig. 2. The perception of PV technology among building industry professionals in architecture, construction, and energy sectors..

**Design Priorities:** Performance (78.37%) is the top priority, followed by cost (64.93%) and environmental impact (53%) for PV installations.

**Installation Preferences:** Rooftops are the preferred location for PV systems (70.57%), with Building Integrated Photovoltaics (BIPV) on balconies being the least preferred (15.3%).

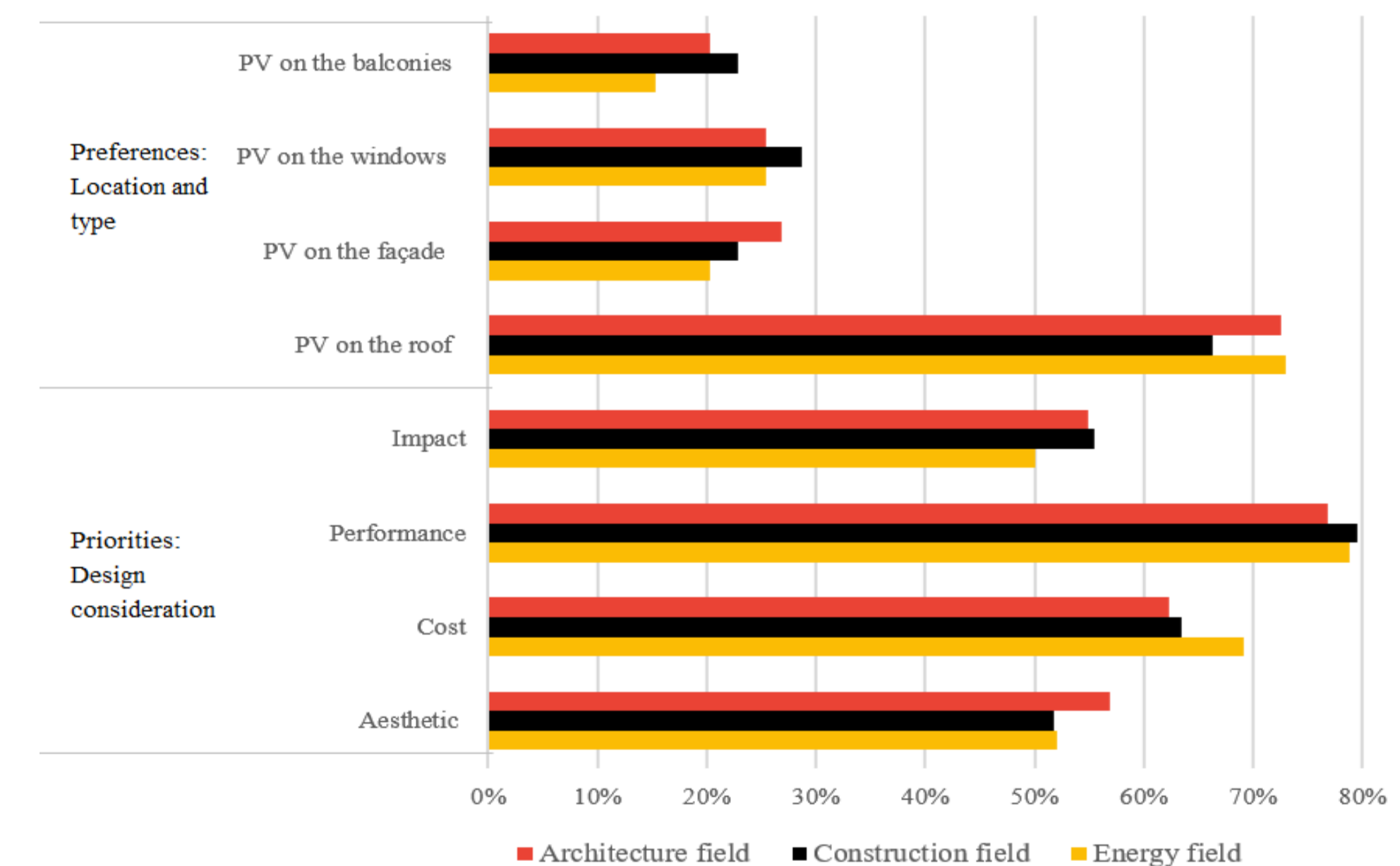


Fig. 3. Design Preferences and Priorities for PV Installation.

### CONCLUSIONS

The study highlights the critical role of occupational and professional background in shaping perceptions and willingness to adopt PV technology. Knowledge and awareness are significant factors in enhancing PV adoption among building industry professionals. The findings emphasize the importance of tailored educational and promotional strategies to increase the adoption of green technologies across different occupational backgrounds.