World Academy of Science, Engineering and Technology International Journal of Environmental and Ecological Engineering Vol:12, No:02, 2018

A Q-Methodology Approach for the Evaluation of Land Administration Mergers

Authors: Tsitsi Nyukurayi Muparari, Walter Timo De Vries, Jaap Zevenbergen

Abstract: The nature of Land administration accommodates diversity in terms of both spatial data handling activities and the expertise involved, which supposedly aims to satisfy the unpredictable demands of land data and the diverse demands of the customers arising from the land. However, it is known that strategic decisions of restructuring are in most cases repelled in favour of complex structures that strive to accommodate professional diversity and diverse roles in the field of Land administration. Yet despite of this widely accepted knowledge, there is scanty theoretical knowledge concerning the psychological methodologies that can extract the deeper perceptions from the diverse spatial expertise in order to explain the invisible control arm of the polarised reception of the ideas of change. This paper evaluates Q methodology in the context of a cadastre and land registry merger (under one agency) using the Swedish cadastral system as a case study. Precisely, the aim of this paper is to evaluate the effectiveness of Q methodology towards modelling the diverse psychological perceptions of spatial professionals who are in a widely contested decision of merging the cadastre and land registry components of Land administration using the Swedish cadastral system as a case study. An empirical approach that is prescribed by Q methodology starts with the concourse development, followed by the design of statements and q sort instrument, selection of the participants, the q-sorting exercise, factor extraction by PQMethod and finally narrative development by logic of abduction. The paper uses 36 statements developed from a dominant competing value theory that stands out on its reliability and validity, purposively selects 19 participants to do the Qsorting exercise, proceeds with factor extraction from the diversity using varimax rotation and judgemental rotation provided by PQMethod and effect the narrative construction using the logic abduction. The findings from the diverse perceptions from cadastral professionals in the merger decision of land registry and cadastre components in Sweden's mapping agency (Lantmäteriet) shows that focus is rather inclined on the perfection of the relationship between the legal expertise and technical spatial expertise. There is much emphasis on tradition, loyalty and communication attributes which concern the organisation's internal environment rather than innovation and market attributes that reveals customer behavior and needs arising from the changing humankind-land needs. It can be concluded that Q methodology offers effective tools that pursues a psychological approach for the evaluation and gradations of the decisions of strategic change through extracting the local perceptions of spatial expertise.

Keywords: cadastre, factor extraction, land administration merger, land registry, q-methodology, rotation **Conference Title:** ICGELA 2018: International Conference on Geomatics Engineering and Land Administration

Conference Location: Mumbai, India Conference Dates: February 22-23, 2018