Does a more complex service offering increase uncertainty in operations? - DTU Orbit (06/11/2019)

**Does a more complex service offering increase uncertainty in operations?**

**Purpose**
The purpose of this paper is to investigate how the complexity of the service offering (service complexity) affects the uncertainty during service operations in engineering services. Specifically, the authors compare the existence of organisational, relational, environmental and technological uncertainty in maintenance services and performance-based services.

**Design/methodology/approach**
The authors present insights from four cases – two each for maintenance services and performance-based services. The in-depth data were based on 56 semi-structured interviews, multiple site visits, meeting notes, service contracts and other secondary data.

**Findings**
The case findings indicate that organisational and relational uncertainty were not linked to service complexity, while observations of environmental and technological uncertainty were higher and more varied for performance-based services. Based on these findings, the authors formulate four propositions regarding the relationship between service complexity and uncertainty in service operations.

**Originality/value**
This research contributes to the OM literature by suggesting that external sources of uncertainty increase with increasing service complexity, while internal sources of uncertainty remain unchanged.

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