A Process Mining Based Model for Customer Journey Mapping

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Customer Journey Mapping (CJM)
Customer journey mapping enables professionals to better understand customers’ experiences when they interact with the steps involved in a service. Two uses of CJMs: (1) the expected journey aiming to represent anticipated journeys, and (2) the actual journey, which aims to describe how the journey was “really” experienced by customers.

Challenges
- Multiple ways to create CJMs exist
- CJMs are not consistent nor mutually compatible
- The customer journey analytics market “is a nascent, highly fragmented market with many vendors offering partial solutions”

We contribute by:
1. (1) clarifying the components of CJMs and proposing a model (literature review), (2) discussing how CJMs can be integrated within the process mining framework, (3) illustrating how process mining can be used to analyze CJMs.

Process Mining
Process mining is a discipline that has the ability to play with process models and events logs to deliver fact-based insights.

Opportunities
- Traces of customer journeys available in information systems could be used to build a CJM from facts
- Process mining works with event logs, a sequential format ideal for representing CJMs
- Working with expected and actual models is at the core of the process mining framework
- Gartner predicted that by 2018, 60% of large organizations will develop in-house customer journey mapping capabilities

Outlook
- Process mining algorithms that fully leverage CJM specificities are required (e.g., emotions, personas, journeys’ path characteristics)
- There is a need to investigate how typical process mining activities can be applied to analyze CJMs
- Further case studies should be undertaken to investigate the potential for bringing multiple stakeholders’ perspectives, as well as qualitative and quantitative methods, together onto the same CJM
- The advances in the sentiment analysis algorithm, and the growing complexity of customers’ needs, provide an exciting opportunity to advance our knowledge of CJMs with empirical tools

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