

Conceptualizing a model for Continuance Use of Cloud Computing in Higher Education Institutions

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Agenda



Motivation and Challenge



Research Gap



Theoretical Background



Research Model



Preliminary study



Future Research

Motivation and Challenge

- Cloud computing has emerged as the main standard of service and resource delivery and grown into a mature technology
 - US\$370bn will be used in CC by in 2022 (IDC 2019).
- Resource management optimization is a key concern for educational institutions. Thus CC has become not only an excellent alternative, but also an essential solution for HLIs.
- While CC is a subscription-based model, a new set of challenges have emerged
 - HEIs can switch vendors if they perceive greater benefits elsewhere
 - Discontinuance use threatens the lasting utility of cloud services

Research on CC continuance have practical and artifact-specific motivations

Research Gap

- Continuance research has been generally undertaken at the individual user level; however, theoretical research organizational continuance is still scarce.
- Current state of CC continuance research:
 - Current research trends on CC have sought to study the technology's acceptance or adoption; however, little research attention has been given to the continuance use in an organizational setting.
 - As a case in point, we have performed a gap analysis using a SLR approach which revealed that gap exists in the continuance use of CC in HEIs at the level of individual and organizational level.

“What constructs influence the organizational-level continuance of CC in HEIs?”

Theoretical Background-ECM

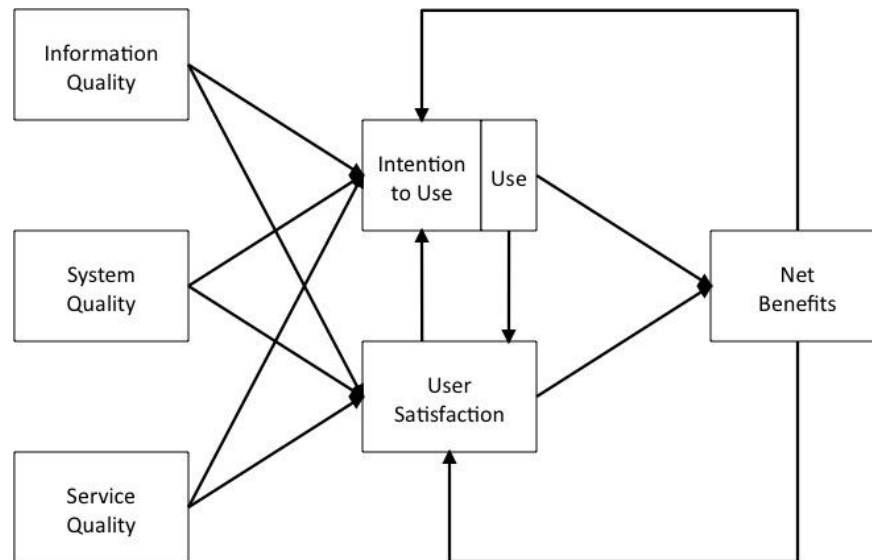
- Expectation Confirmation Model of IS Continuance (ECM)
 - Form Bhattacharjee (2001)



- Extension and Contextualization
 - To fit the *organizational level context*
 - Replacing Perceived Usefulness by Net Benefits
 - Integration of constructs from post-adoption organizational-level theories
 - To fit the *education context*:
 - Integrating relevance constructs from the literature
 - Upgrading the instrument items

Theoretical Background-ISS

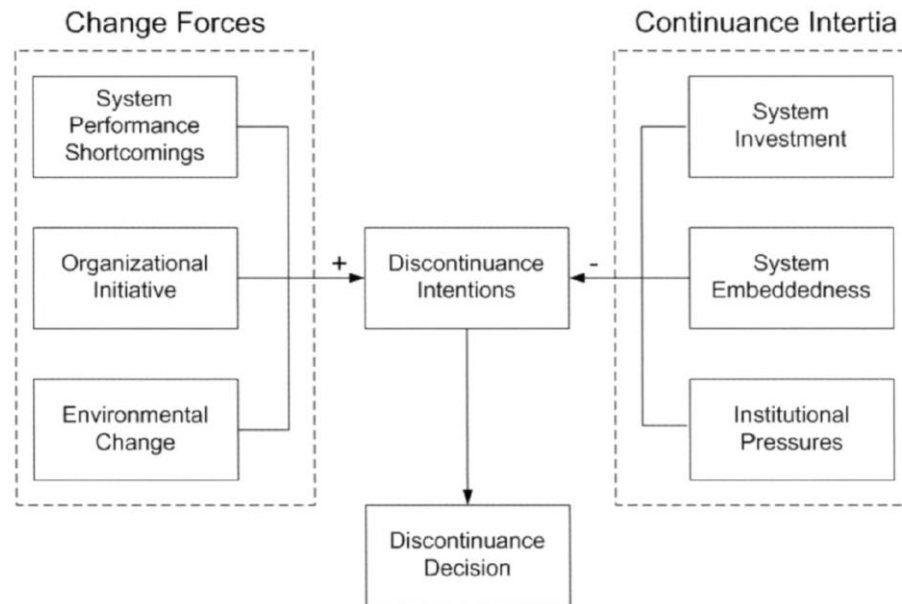
- IS Success Model (ISS)
 - Form Delone and McLean (2003)



- Integrated Constructs:
 - Net Benefits, Information Quality, and System Quality
- Neglected Constructs:
 - Use and Service Quality

Theoretical Background-**ISD**

- **IS Discontinuance Model (ISD)**
 - Form Furneaux and Wade (2011)



- **Integrated Constructs:**
 - System Investment, Technical Integration, and Competitive Pressure

Contextual Constructs

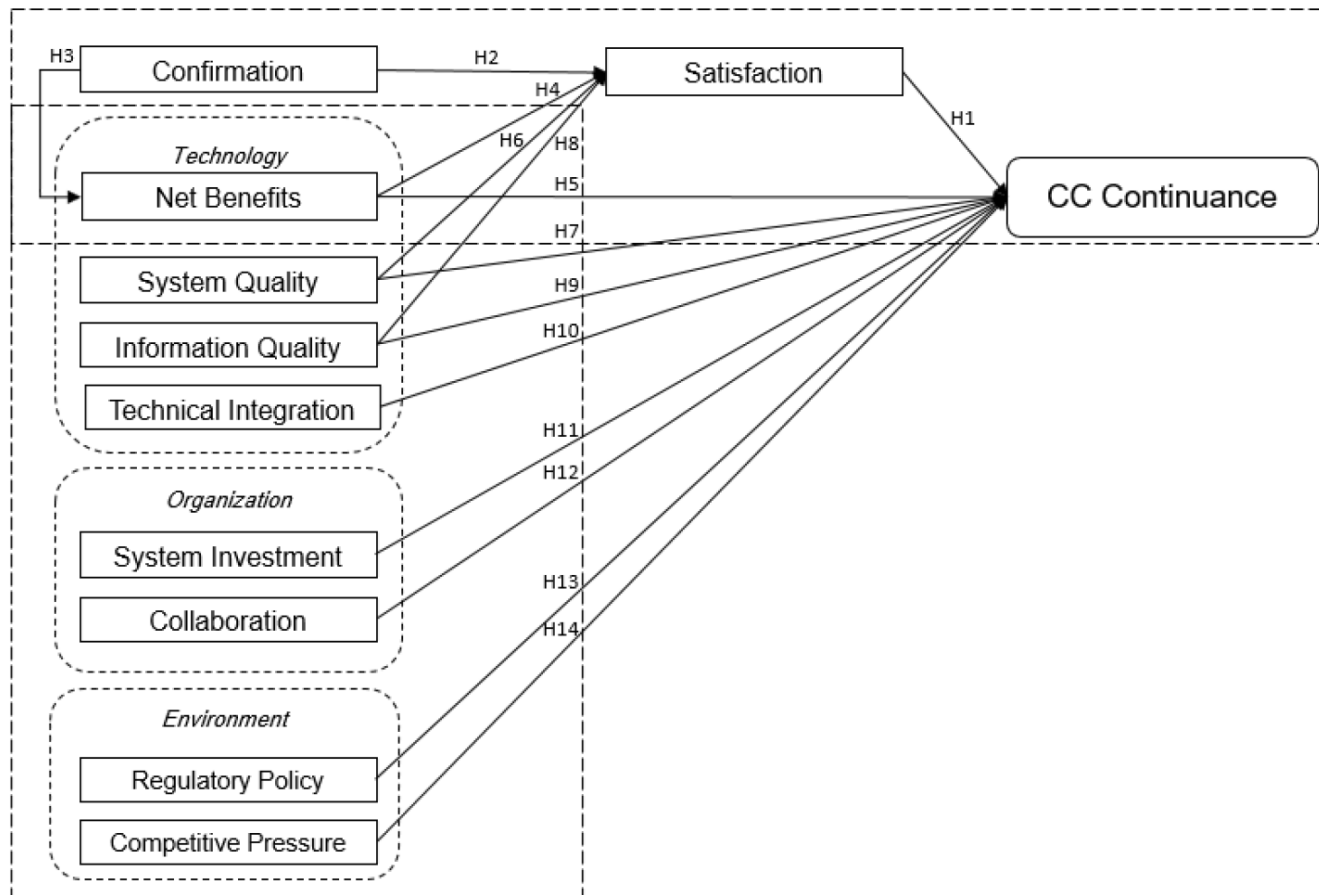
To keep our research model coherent and relevant, we identified additional constructs from the literature as constructs to predict continuance use of CC in educational context.

- Integrated Contextual Constructs:
 - Collaboration
 - Regulatory Policy

Theoretical Background-TOE

- The technology–organization–environment framework (TOE)
 - Form Tornatzky, Fleischer et al. (1990)
- To structure our model, we took a technological-organizational-environmental approach by applying the lens of the TOE framework to our research model.
 - Technology context:
 - Net Benefits, System Quality, Information Quality, and Technical Integration.
 - Organizational context:
 - System Investment, and Collaboration
 - Environmental context:
 - Regulatory Policy, and Competitive Pressure

Research Model



Preliminary Study

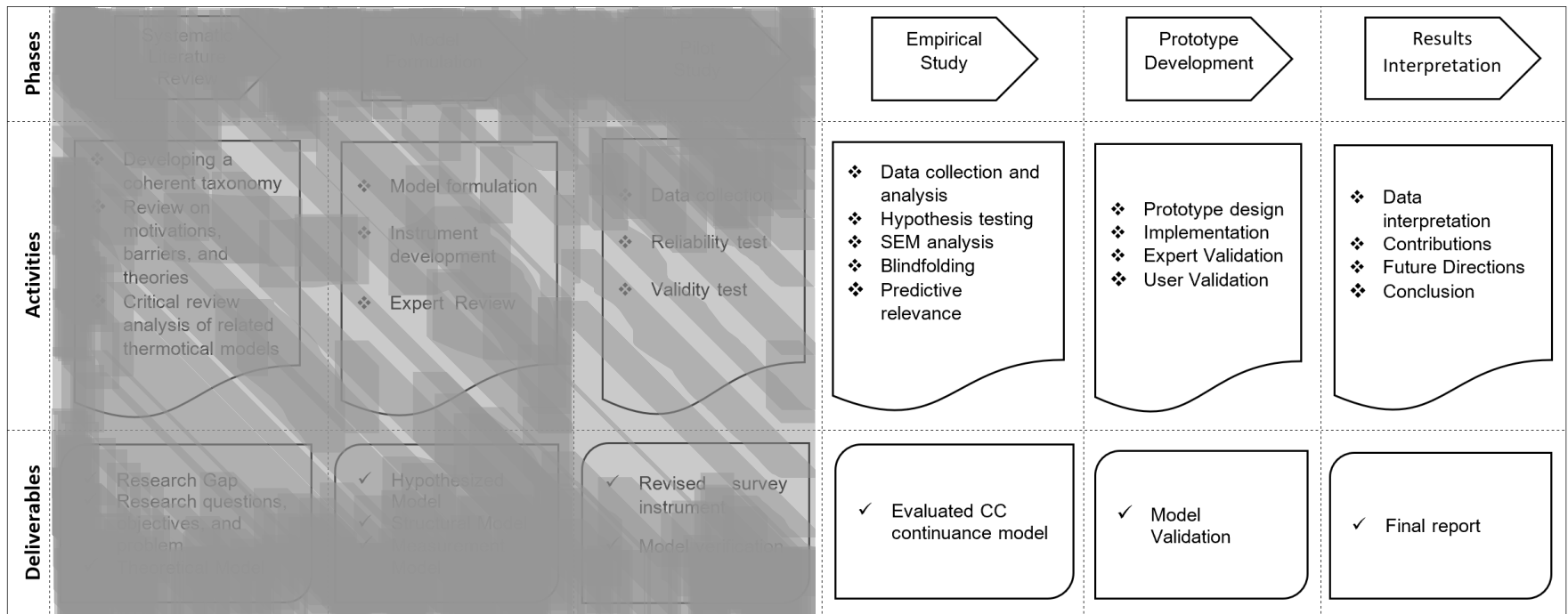
A pilot study was conducted to increase the consistency of the measures.

- Instrument development (Guidelines of Moore and Benbasat 1991)
 - Item formulation,
 - Scale development,
 - and instrument testing (content validity with 5 experts form academic and industry)
- Data collection:
 - Online and offline distribution channels
 - 38 completed questionnaires
- Data analysis mechanisms:
 - SEM using SmartPLS 3.0.

As a result, the research instrument is both reliable and valid.

Future Research

- Validate the measurement and structural model
- Apply the SEM, and proceed with the full research





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Thank You !

Questions | Comments | Suggestion ?