ASSIGNMENT #4

ARTICLE CRITIQUE (ANALYSIS)
DETERMINANTS OF INFORMATION CHANNEL CHOICE: THE IMPACT OF TASK COMPLEXITY AND DISPOSITIONAL CHARACTER TRAITS

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Article


Theoretical Question(s)

1. Do dispositional character traits of the information seeker have a measurable impact on habitualized behavior patterns concerning the selection of information channels?

2. Is it possible to predict the required level of social presence and synchronicity of an information channel based on task characteristics (task complexity) and the user’s personality traits?

Points of Interest / Assumptions Made

➤ Communication and personality theories can be employed to explain phenomena theories in the context of information seeking.

➤ There is profound evidence for the fact that social processes play an important role during seeking activities and that people prefer information which immediately comes from other human beings, especially in complex tasks.

➤ Therefore, social presence of an information channel might be a central factor which is considered when decisions about information channel choice is made.

➤ Synchronicity: The timeliness of adequate responses to users’ requests.

➤ The process of information seeking can be interpreted as a special form of a communication process.

➤ An increase in task complexity leads to an increase in the amount of information which is requested while the corresponding task is processed.

➤ Media Synchronicity Theory: Differentiates between conveyance and convergence process.

➤ Social Presence Theory: Different communication media are chosen for tasks, where the media’s social presence equals the degree of awareness of other persons’ physical presence in a communication process.

➤ Personality traits will have a measurable effect on human behavior.
Conclusion

Human information seekers prefer information channels with high degrees of perceived social presence when the task which has to be processed is characterized by a high level of equivocality and thereby induced high task complexity.

H1: *The higher the perceived task complexity, the higher the perceived information need to complete the task.*

H2: *The higher the perceived information needs, the higher the degree of required synchronicity of the information channel.*

H3: *The higher the perceived task complexity, the higher the required degree of social presence of the information channel.*

H4: *The higher the information seeker’s personal predisposition with respect to extraversion, the higher the required degree of social presence of the information channel.*

H5: *The higher the information seeker’s predisposition with respect to openness the higher the required degree of social presence of the information channel.*

H6: *The higher the information seeker’s personal predisposition with respect to neuroticism the higher the perceived information need to complete the task.*

Target Population

“Young high potentials”: first generation digital natives. Well educated German students who are soon entering the job market.

Sampling Frame

- 171 subjects (90% response rate) from students (average age 22 years old) at German University in 2010.

Sampling Method

- Survey: 116 questions on a 5 to 9 pt. likert scale questioning their personality and perceived complexity of two business-related tasks.

- Pretest done by 8 Research Assistants

Robbins (2012)
Independent Variables

- Individual Characteristic: Personality
  - Extraversion
  - Openness
  - Neuroticism
- Task complexity (Perceived)

Dependent Variables

- Information Need (Perceived)
- Information channel synchronicity
- Social Presence

Data collection method

Computer based surveys – scenarios were created to measure independent and dependent variables. To ensure statistical validity, several convergent validity tests were conducted. Construct validity was assessed and discriminant validity was tested.

Unit of Analysis

Degree of social presence associated with information seeking.

Sources of Bias

I don’t recognize any immediate sources of bias within this replication study – mostly because the author did not share any of the 116 survey questions administered to the students…

I have some real concerns about the claims to external validity and future implications given that selection was limited only to German students.
Threats to internal validity

There are a few factors I believe the author has not addressed in making the causal relationships within H1 – H3. There are certainly situations where task complexity can be high, however, the perceived information need to complete tasks are dependent on constructs like motivation, reward, compensation, cultural aspects, etc. I believe not addressing these and similar concerns creates a shortfall and decreased assurance to internal validity.

Threats to external validity

a. Selection – limited to a group of German students in one gathering instance. External and construct validity is significantly threatened due to the bias involved in this selection.

b. Maturation – May pose a threat to validity as social presence is influenced by time and the changing communication medium, which in this case, would be social media channels as the evolution of the internet and web applications moves toward Web 3.0.

c. History – Although the author’s research spanned over a decade, external events most likely did not negatively or positively influence measurement.

d. Instrumentation – Survey’s conducted did not change and thus this threat does not apply.

e. Mortality – addressed; not applicable. Research applies to first generation digital natives.

f. Selection by maturation – not applicable.

Research Type

Case-study: “theoretical research model based on a thorough review and integration of theories”. Replication using survey (quasi-experimental).
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**Action-able advice**

Fix wording on some the sentences – some parts don’t make sense (i.e. “…although tasks can usually not be broken down…”)

I would question why the 116 questions from the survey were based on a 5 to 9 pt. scale – why not just adopt a 1 to 5 pt. scale? Sounds over-complicated – author should really clarify this and provide more details regarding the survey.

**List the manuscript’s strengths**

Author does an excellent job of identifying the scope of the research study and the implications for external validity – however, with that said, I personally question how relevant this study would be with such a limited sampling population chosen and scope - I see very limited use for this authors findings.

**General Reaction**

Very interesting topic for research and the hypotheses generated were excellent, however, would have liked to have seen a much broader sample taken to enhance external validity. Also would have liked to seen a break down analysis (with numbers) on responses for some of the independent variables – I have concerns about the adequacy for the number of participants (< 200) involved (is sample population enough to call results significant?).