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Comparing Innovation Adoption and Organizational Buying Behavior Approaches in a Context of Technological Investment Decision-Making

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The Purpose

This paper examines conceptually a process of decision-making on new technology discussing **organizational buying behavior approach** and **innovation adoption approach** in regard to **general decision-making** and finally combines these fields in order to conceptualize and understand better the process of decision-making on **new technological investment**.



The Structure of the Paper

1. Decision-Making
2. Innovation Adoption
3. Organizational Buying Behavior

Finally the work is drawn up in findings, discussion and conclusions and combination model of the approaches is presented.



Decision-Making & Technology

- According to Mintzberg, Raisinghani and Théorét (1976, 246) decision is “a specific commitment to action” where the action has strategic consequences for the organization making the decision.
- Gee (1981, 5) sees technology as “man-made creation that embodies the application of scientific knowledge and understanding” which value is determined “by the extent that it meets the user’s need, objective and requirement.



Different Types of Decisions

- The decision-making processes vary in terms of length and scale.
- **Decision choices** are single go/no-go choices.
- **Decision Actions** (holding a meeting) are aggregated decision choices.
- Decision actions construct **decision events** that usually involve actors both inside and outside the firm.
- A series of separate, but related decision events generate **mini-decision processes** (mergers etc.)
- **Decision processes** span periods of time lasting one or more years and usually involve hundreds of actors.
- **Decision theatre**, the last and broadest concept, refers to very long-term decision processes such as a worldwide strategic decision and its implementation.

(Kriger & Barnes 1992, 446–450.)



Decision-Making

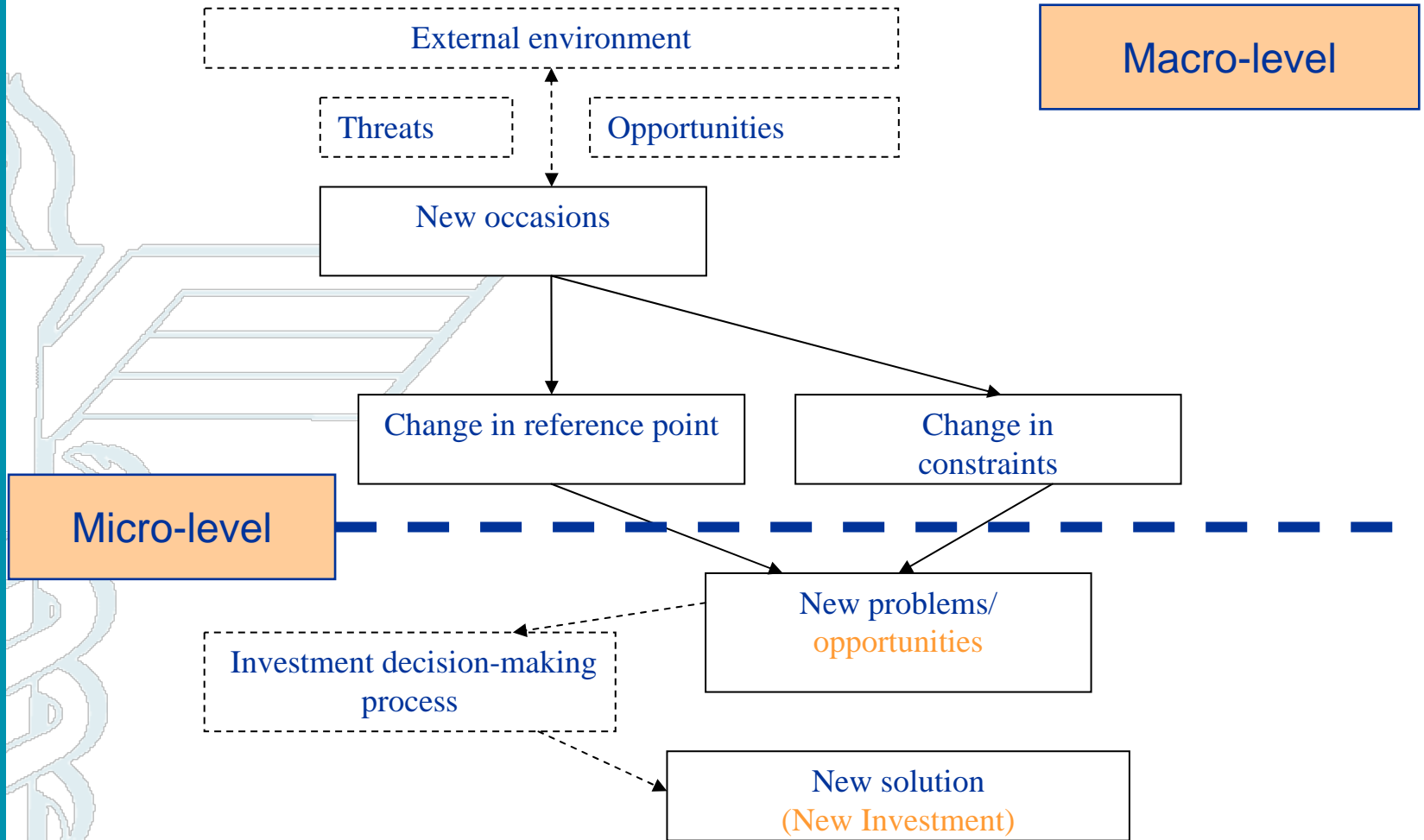


Figure 4 A Dynamic Model of Organizational Decision-Making (revised from Kunreuther & Bowman 1997, 407)



Innovation Adoption

- Mostly considered as a part of diffusion tradition i.e. single adoptions generate the aggregate level diffusion
- In this sense single adoption is relevant only in a sense that factors affecting it might be generalized on a macro level
 - This is why it is a "black box" approach
 - Opening up a black box positions the research beyond the field of diffusion as organizational behavioral research
- Fuzzy terminology (adoption, acceptance, acquirement, acquisition, assimilation...)
- Referring to choice, the decision process, or the decision process + implementation
- Here understood similar to decision process as adoption is about change and the process of its acceptance
- Implementation is only performing this change on a concrete level



Organizational Buying Behavior Approach

Buying process

- Different types of models (task models, nontask models and complex models) (see Johnston & Spekman 1987)

Buying task

- New Technology Investment Decision - A new task buying situation with a high risk?

Buying center

- Who participate the decision process
- Roles etc.
- Learning during the process?



Findings, Conclusions & Discussion

- Organizational buying behavior approach tackles the process nature but fails to capture the specific nature of new technologies (context specificity is low)
- Innovation adoption approach understands the specific nature of new technologies but considers the process as black-box
- An opportunity to cross-fertilize?



Findings, Conclusions & Discussion

- In the literature, innovation adoption decisions are often considered as **decision choice** type decisions (see e.g. Choffray & Lilien 1980; Everdingen & Bamossy 2000, 125; 164; Gatignon & Robertson 1989, 36; Waarts, van Everdingen & Hillegersberg 2002).
- On the other hand in some studies (e.g. Frambach & Schillewaert 2002) innovation adoption can be seen to refer to a whole decision process, not just an outcome, culminating in innovation adoption or rejection (see e.g. Frambach & Schillewaert 2002).
- These process adoption models as well as organizational buying behavior models (Choffray & Lilien 1980; Robinson, Faris & Wind 1967; Sheth 1973; Webster & Wind 1972) see investment decision-making as **mini-decision process** or **decision event**.



Findings, Conclusions & Discussion

- The innovation adoption approach recognizes the dynamic link between organization and its environment demonstrated in figure 1. Like Damanpour and Gopalakrishnan (2001, 47) view an innovation adoption as “an organization’s means to adapt to the environment, or to preempt a change in the environment, in order to increase or sustain its effectiveness and competitiveness.”
- This idea lacks from the organizational buying behavior approach as it concerns traditionally other types of products (raw materials etc.) than technological investments that has power to change the prevailing organizational structures.
- In this sense the innovation adoption approach highlights the change in a reference point or constraints launched by an external factor as it considers a new innovation and awareness of it an initiator of the decision-making process. The organizational buying behavior approach sees the process more internally oriented.



Findings, Conclusions & Discussion

- On the other hand the innovation adoption approach fails to capture the intra-firm dynamics during the process namely how investment decision is generated through individual level interaction among decision-making participants. This is considered explicitly in the organizational buying behavior approach.
- As buying process a process of investment decision-making on new technology is a new task buying situation and due to newness and most often high risks and high commitment the process is lengthier and various participants are involved within an organization.



Findings, Conclusions & Discussion

- These similarities and differences between the innovation adoption and organizational buying behavior approaches form a fruitful basis for combination of these approaches in order to better conceptualize and understand the process of decision-making on new technology.
- The combination of innovation adoption and organizational buying behavior approaches is presented as *the preliminary model of technological investment decision-making*.



Findings, Conclusions & Discussion

- *The preliminary model of technological investment decision-making* consists of combination model of buying that based on meta-analysis of 165 buying related publications (see Johnston & Lewin 1996), combination model of innovation adoption (Frambach & Schillewaert 2002) and other innovation adoption related literature (Waarts et al. 2002, 414; Puumalainen 2002, 5; Ozanne & Churchill 1971, 325).
- The model is not statistically tested but presents rather a proposition for further research attempts.

