

Explaining the role of user participation in information system use

Jon Hartwick and Henri Barki (1994)
Management Science, 40, 4, 440-465

- **Previous qualitative research**
 - **User participation is crucial for designing well functioning technology**
E.g., Bødker et al (1985), Bjørn-Andersen and Turner (1998)
- **Previous quantitative research**
 - **Low to moderate levels of correlations between user participation and attitudes toward system/system use**
- **Assumption**
 - **The level of system use is a good measure of the success of a system**

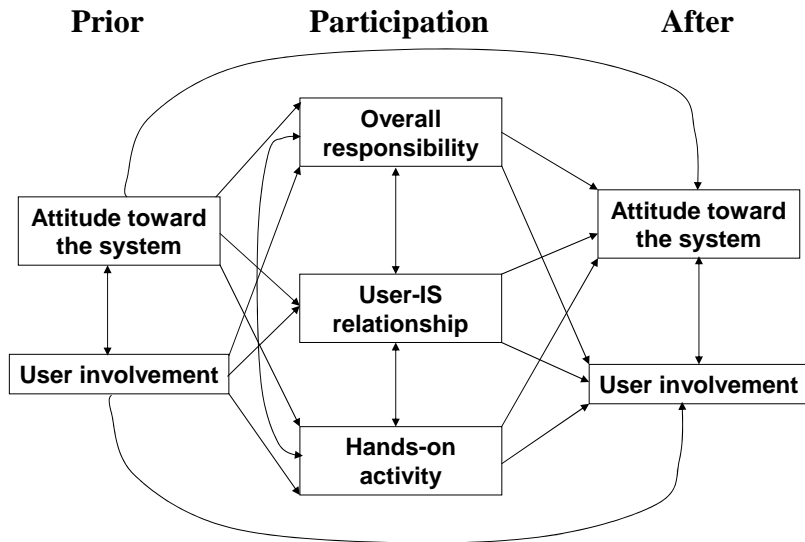
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Participation vs. Involvement

- **Participation**
 - **Activities that the users and their representatives perform in the system development process**
 - **The amount of time spent on the activities**
- **Involvement**
 - **A subjective, psychological state**
 - **The importance and personal relevance of a system to a user**
- **Attitude**
 - **The amount of affect for or against an object or behaviour**
 - **Locating the individual on a good / bad scale**

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Antecedents and consequences of participation



- Hypotheses derived from the literature

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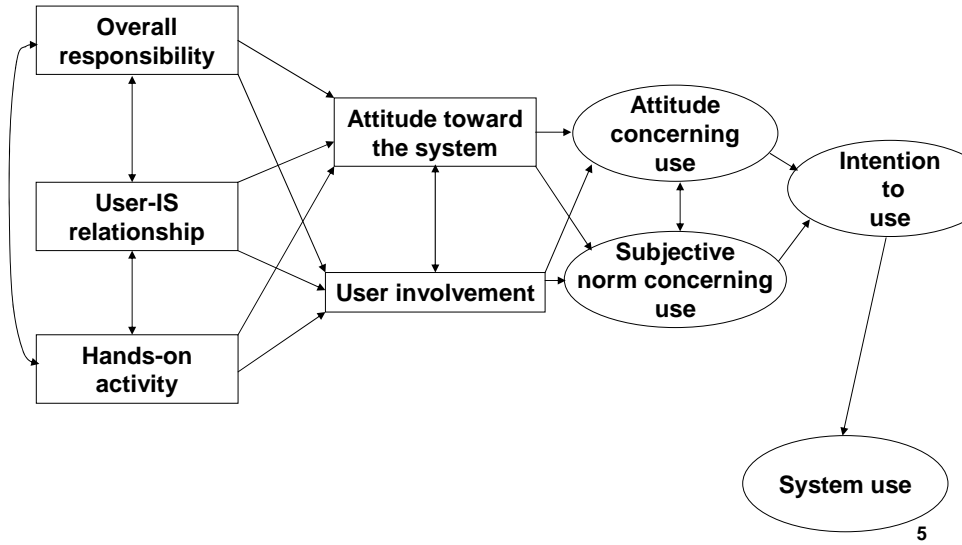
Theory of Reasoned Action (TRA)

– Fishbein and Ajzen (1974)

- **Intention**
 - Immediate determinant of behaviour
- **Attitude concerning behaviour**
 - Whether the individual feels that the behaviour is good / bad
- **Subjective norm concerning behaviour**
 - Whether the individual believes that others want her/him to perform the behaviour
- **Attitude towards objects**
 - Do not strongly predict attitudes towards behaviour
 - Attitudes towards a system is only weakly related to system use

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Integrated model Hypotheses



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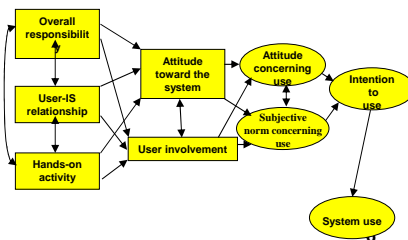
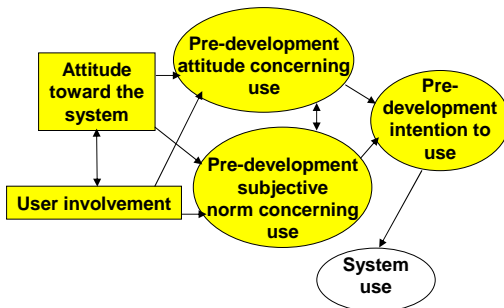
Method

• Questionnaire prior to development

- 1059 prospective users in Canada
- 293 usable responses
- Measurement of
 - User involvement
 - Attitude towards the system
 - Attitude concerning system use
 - Subjective norm concerning system use
 - Intention to use the system

Post implementation questionnaire

- 127 usable responses
- 105 of whom also had responded to the questionnaire prior to development
- User participation
- User involvement
- Attitude towards the system
- Attitude concerning system use
- Subjective norm concerning system use
- Intention to use the system
- System use



Examples from the questionnaires

Responsibility

1. Were you the leader of the project?
2. Did you have responsibility for estimating development cost of the system?
3. Did you have responsibility for requesting additional funds to cover unforeseen time / cost overrun?
4. Did you have responsibility for selecting hardware and / or software needed for the new system?
5. Did you have responsibility for the success of the new system?
6. I had main responsibility for the development project

User involvement

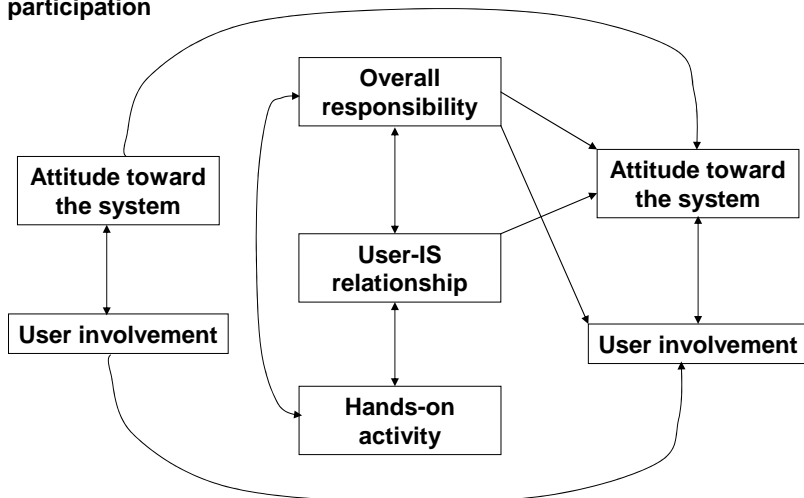
Indicate your thoughts concerning the new system. I consider the new system to be ...

1. Important / unimportant
2. Not needed / needed
3. Essential / nonessential
4. Trivial / fundamental
5. Significant / insignificant
6. Means nothing to me / means a lot to me
7. Of no concern to me / of concern to me
8. Irrelevant to me / relevant to me
9. Matters to me / doesn't matter to me

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Antecedents and consequences of participation

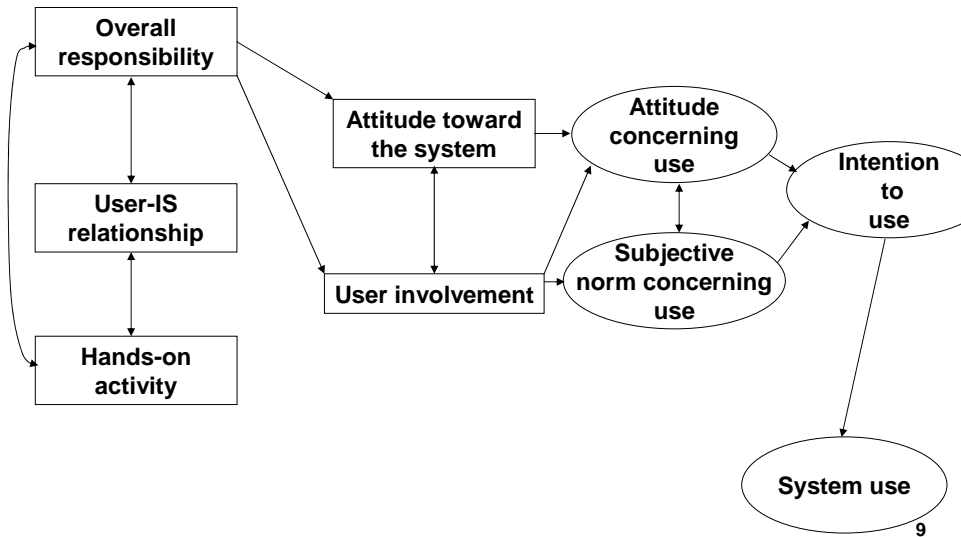
- Based on empirical results, non-significant paths removed
- Initial user attitude and involvement do **not** influence the level of participation



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Integrated results

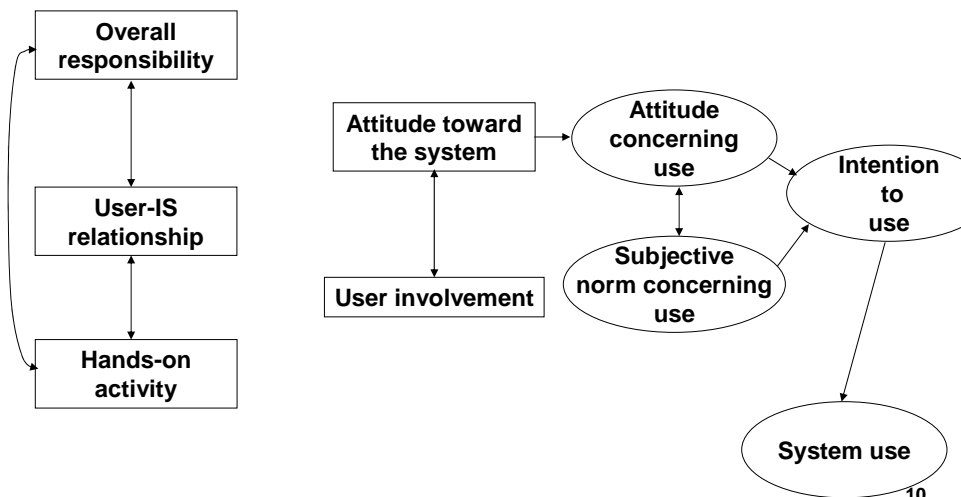
- Insignificant paths removed



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Mandatory users

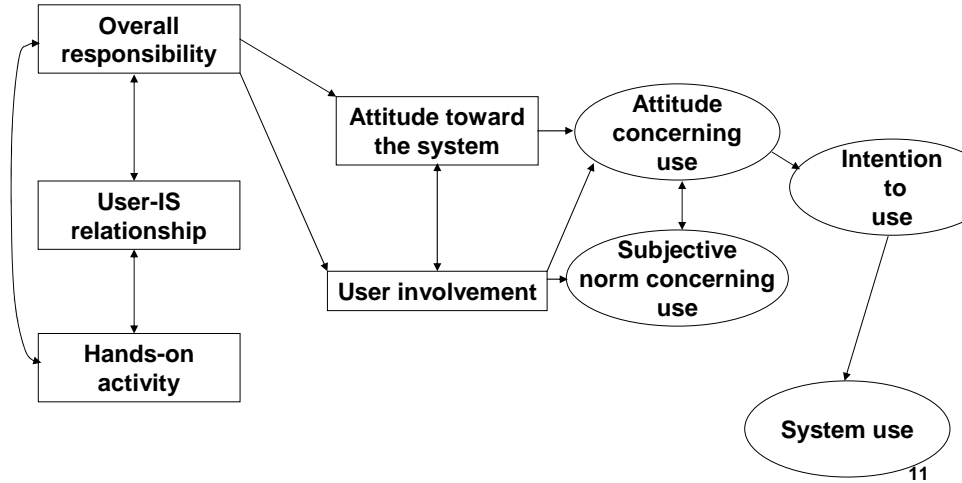
- N=62
- Insignificant paths removed
- User participation and involvement are **irrelevant** for system use



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Voluntary users

- N=58
- Insignificant paths removed
- Activities fostering responsibility influences system use



Recommendations

- Additional development activities that lead to a sense of responsibility could be identified and assigned to different users
- Responsibility activities could be assigned to user groups
- For mandatory users, participation and involvement seem **unimportant**
Subjective norms are important