

# Understanding Consumers' Behaviour when Using a Mobile Phone as a Converged Device

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# Convergence

- A social phenomenon? a paradigm? or a buzzword?
- It is argued that convergence will drive different business entities such as technology, industry, firm, network, market, and product to integrate
- This paper takes a product perspective of convergence

# Definition of a Converged Device

- a device that integrates the functions which were used to be performed by different devices (Rangone & Turconi, 2003)
- a device capable of accessing different information resources and platforms
  - TV/PC like?
  - More information and choices from different media?
  - Multiple functions in one device?
  - Portable and convenient?

# Mobile Phone as a converged device

- Communication
  - Voice, SMS, e-mail, IM, or video
- Personal information management (PIM)
  - Checking schedule, taking notes, setting alarm clock, etc
- Entertainment
  - Playing games, taking photo, listening to music, etc
- Commerce
  - Checking bank account, paying bills, doing shopping, etc

# Research Problem

- Consumer devices are becoming more multifunctional but research shows that the full use of converged devices is limited
  - Adoption of new IT
  - Diversity of use
- What motivates consumers to use the full functionality of a converged device?

# Theory of Technology Adoption

- IT/IS theories of Technology Adoption, such as TAM, TAM2, TPB, UTAUT, MM, IDT, etc (Venkatesh et al. 2003)
- They are effectively applied to understand how individuals perceive, use and assimilate new technologies in different contexts
- Only a little research has been found to explore how the scenario of convergence affects consumers' behaviours

# Research Objective

- To explore the factors that influence consumers' use of mobile phones as converged devices directly from their experiences
- To develop an empirical model to study the factors that affect the use of a converged device

# Research Methods

- 50 mobile phone users were recruited voluntarily and participated in an interview
- The interviews were conducted via face to face, online forum, and e-mail
- The questions were categorised into three sections ..
  - Demographic
  - Use of mobile phone
  - Reasons for the current level of use

# Data Analysis

- The interviewees were 32 males; their age ranges from 21 to 50; and most of them (62%) are employed
- The interviewees were categorised by their extent of use, such as basic (communication only), intermediate (plus PIM), advanced (first three), and converged (all four purposes)

# Data Analysis-Cont.

- Interviewees' reasons for each level of use were transcribed and categorised as indicators
- Some nominal data was counted by Excel and interviewees' transcript was analysed by qualitative software such as Nvivo 7.0

# Device Type

| Extent of use<br>Device choice | Basic<br>(8) | Intermediate<br>(33) | Advanced<br>(8) | Converged<br>(1) |
|--------------------------------|--------------|----------------------|-----------------|------------------|
| Basic                          | 2            | 10                   |                 |                  |
| Advanced                       | 4            | 14                   | 1               |                  |
| Multi-functional               | 2            | 9                    | 7               | 1                |

# Service Plan

| Extent of use<br>Service Plan | Basic<br>(8) | Intermediate<br>(33) | Advanced<br>(8) | Converged<br>(1) |
|-------------------------------|--------------|----------------------|-----------------|------------------|
| Voice+<br>SMS                 | 3            | 8                    |                 |                  |
| 2G or<br>2.5G                 | 4            | 16                   | 1               |                  |
| 3G                            | 1            | 9                    | 7               | 1                |

# Age Group

| Extent of use<br>Age range | Basic<br>(8) | Intermediate<br>(33) | Advanced<br>(8) | Converged<br>(1) |
|----------------------------|--------------|----------------------|-----------------|------------------|
| 21 to 30                   | 1            | 8                    | 2               | 1                |
| 31 to 40                   | 4            | 22                   | 6               |                  |
| 41 to 50                   | 3            | 3                    |                 |                  |

# Other Variables

|                       |  |
|-----------------------|--|
| Perceived Usefulness  | “It’s convenient’, “I use PC to do that”, “I don’t need it”, “it’s useful to remind me”, “quality is not good” |
| Perceived Ease of Use | “it’s easy”, “I don’t know how to use it”  |
| Perceived Enjoyment   | “I use it when I am bored”, “it is fun”, “I use it to show my friends”, “it is interesting”                    |
| Perceived Risk        | “It is not safe”, “I prefer to using my computer to do that”, “the cost is not cheap”                          |

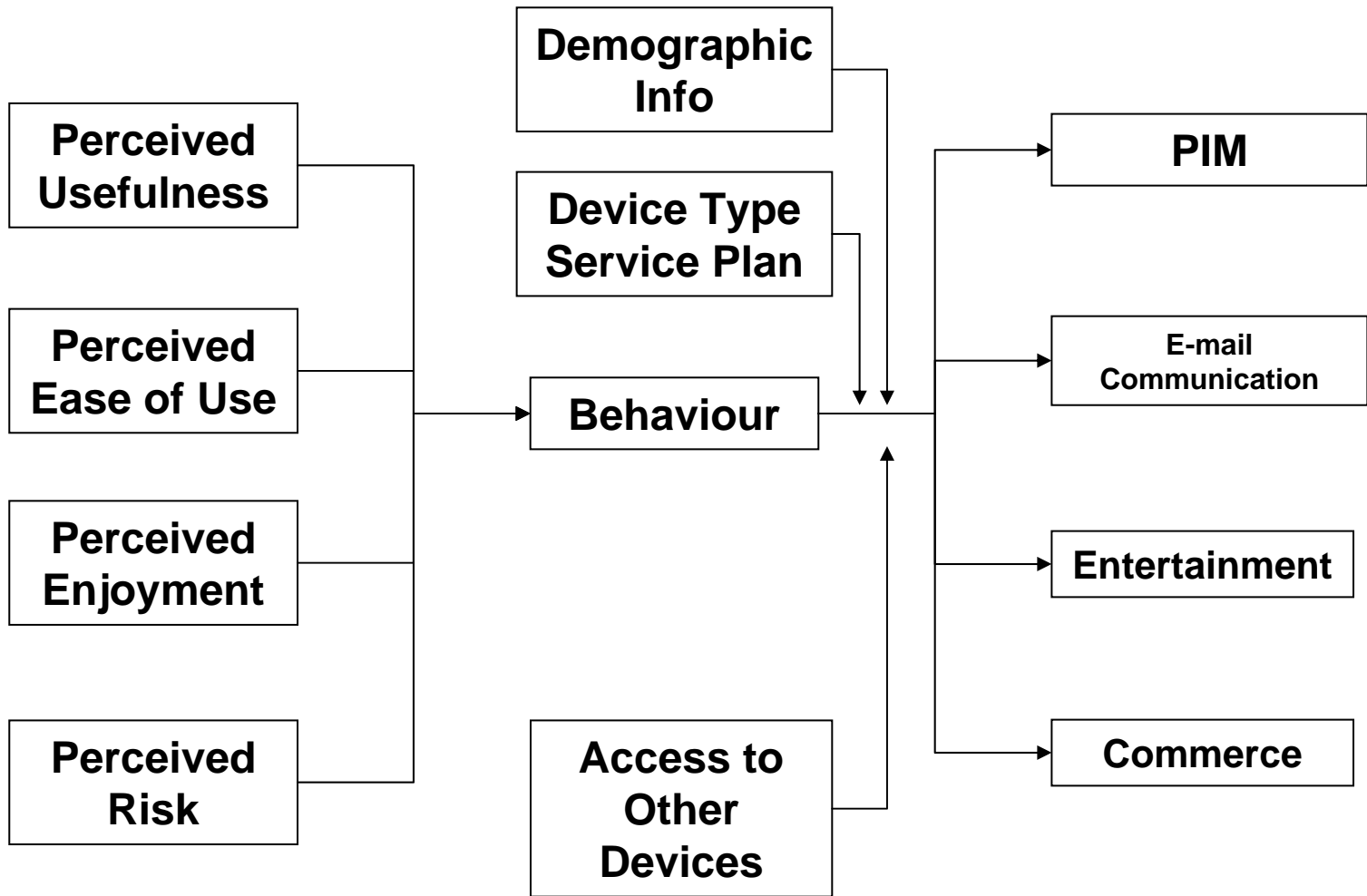
# Discussion

- Usefulness and easy to use are still common responses that explain how people use a mobile phone as a converged device
- Age, device choice, service plan, and access to other devices could be the indicators that affect people's decisions about the extent of their uses

# Discussion-Cont.

- Some psychological traits that influence people to use a mobile phone for entertainment include fun, boredom, killing time. These reasons can be categorised as perceived enjoyment
- Factors that influence people to use a mobile phone for commerce, such as safety, cost, system security, service quality can be attributed to the variable of perceived risk

# Research Model



# Future Research

- Development of the research instrument
- Testing the validity and reliability of the instruments
- Model testing through large scale sample in Taiwan and Australia

**Thank You!!**