

Factors Influencing Usage of the New Technologies in Low Income Households in Kenya

By

Margaret Nyambura Ndung'u

Nyambura@iniitkenya.com

PhD Candidate, School of Informatics and Computing, University of Nairobi

And

Prof. Timothy M. Waema

waema@uonbi.ac.ke

Associate Professor, School of Informatics and Computing, University of Nairobi

And

Prof. Winnie V. Mitullah

mitullahwinnie@gmail.com

Associate Professor, Institute of Development Studies, University of Nairobi

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Presentation outline

1. Background to the paper
2. Research Framework
3. Research Methodology
4. Findings
5. Conclusion
6. Policy Implications

1. Background to the paper

- There are factors that influence usage of new technologies beyond access.
- These factors have not been fully explored particularly in Low income households.
- They include social, economic, knowledge, culture, political, personal history, psychology environment, etc.
 - These factors influence **If** the technologies are used and **How**.

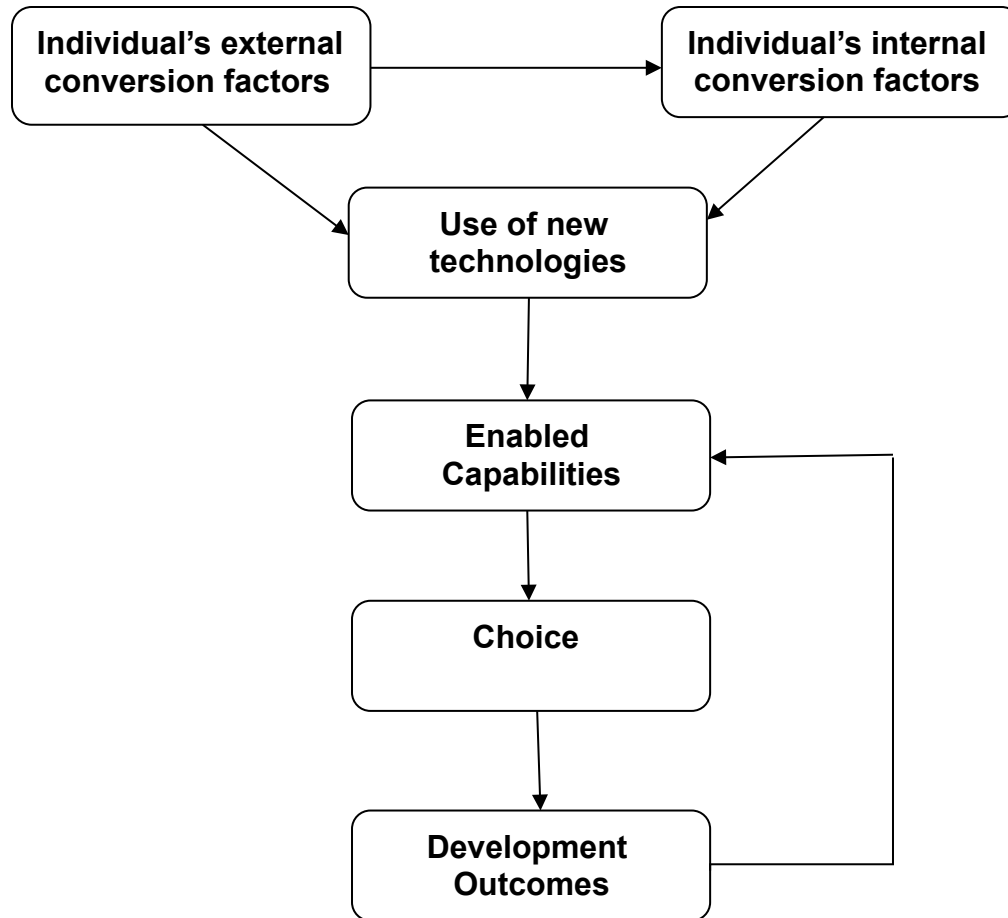
2. Research Framework

- Paper uses the Capability Approach (CA) as the theoretical framework
 - CA argues that human development should be viewed as a process of expanding people's capabilities
 - It is concerned with what people are able “to do” and “to be” as a result of using the resources around them.
 - While access to goods and services is a prerequisite to use, individual differences plays a role on:
 - Whether to use the goods and services,
 - How to use them
 - The value attached to the usage and derived outcomes.

Context of the paper

- Factors evaluated:
 - Age
 - Income
 - Gender
 - Marital status
 - Education level
 - Skills
- New technologies evaluated
 - Internet
 - Email
 - Mobile phones

Conceptual Framework



3. Research Methodology

- RIA Survey Data(2007)- 1291 HH
- Survey (2010) -
 - Subset of RIA Survey (2007)
 - Randomly selected 40 households
 - Maximum income of \$ 315.6 (KNBS classification)
- Secondary sources
 - Books, journals, economic surveys and online materials

Sample description

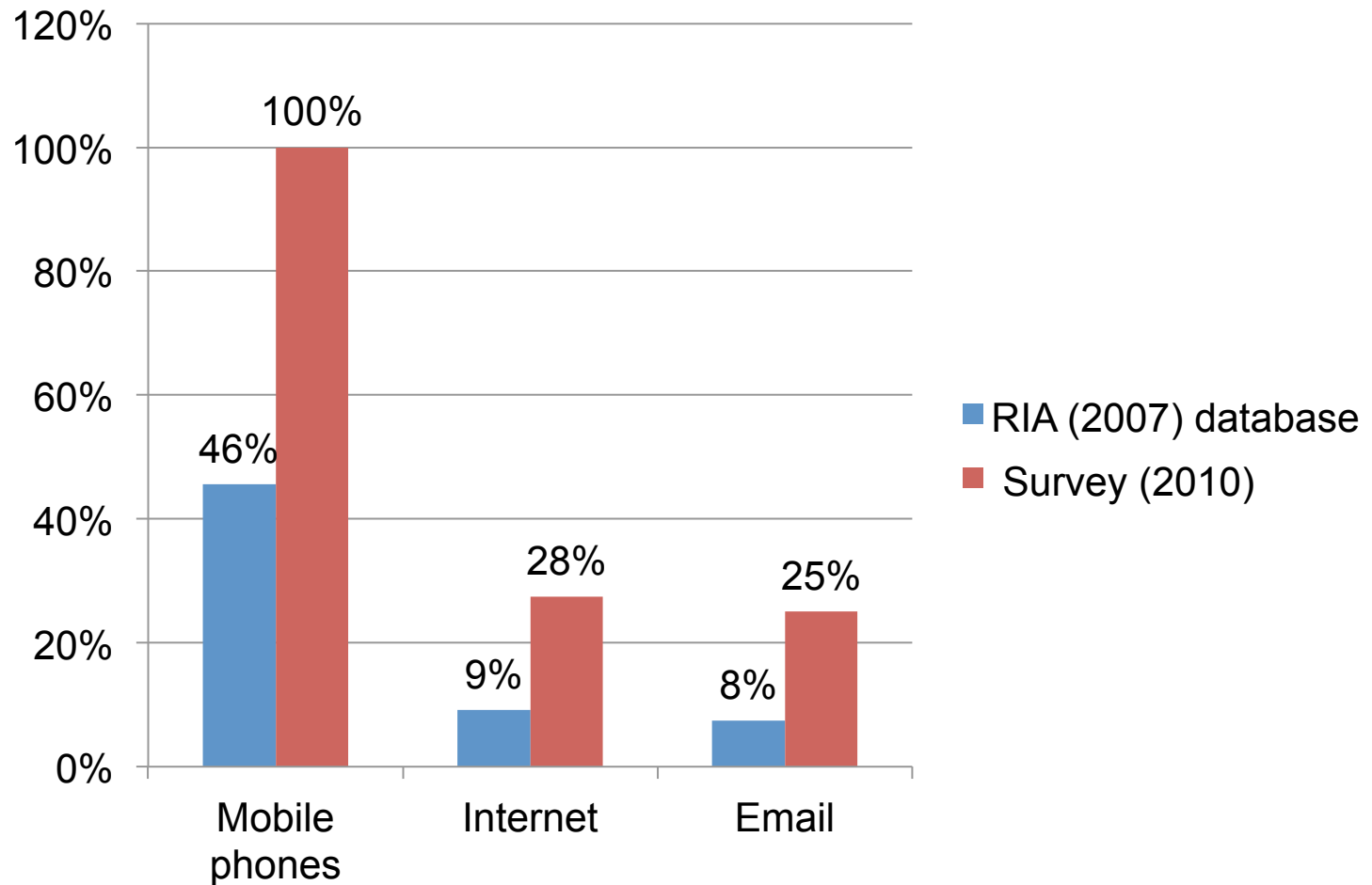
RIA(2007)

- 1291 low income households
- Derived from 1461 households across the country: 40% urban, 30% other urban and 30% rural.
- 38.2% male and 61.8% female

Survey 2010

- Total of 40 low income households
- Derived from a pool urban households
- 45% male and 55% female

4. Findings: Usage of the new technologies



Findings: P-values of the factors

	Factors	Pearson Chi-Square		
		P-value <0.05 (statistically significant)		
		Internet usage	Email usage	Mobile phones usage
1	Age	0.78	0.93	0.12
2	Gender	0.78	0.56	0.03
3	Marital status	0.12	0.19	0.00
4	Education	0.00	0.00	0.00
5	Income	0.77	0.98	0.01
6	Skills	0.00	0.99	0.00

Equation 1: Internet usage model

$$\hat{Y} = -7.5 + 0.004x_1 + 0x_2 - 0.07x_3 + 0.44x_4 + 0.18x_5 + 4.5x_6$$

Equation 2 : Email usage model

$$\hat{Y} = -23.5 - 0.02x_1 + 0x_2 - 0.16x_3 + 0.41x_4 + 0.25x_5 + 19x_6$$

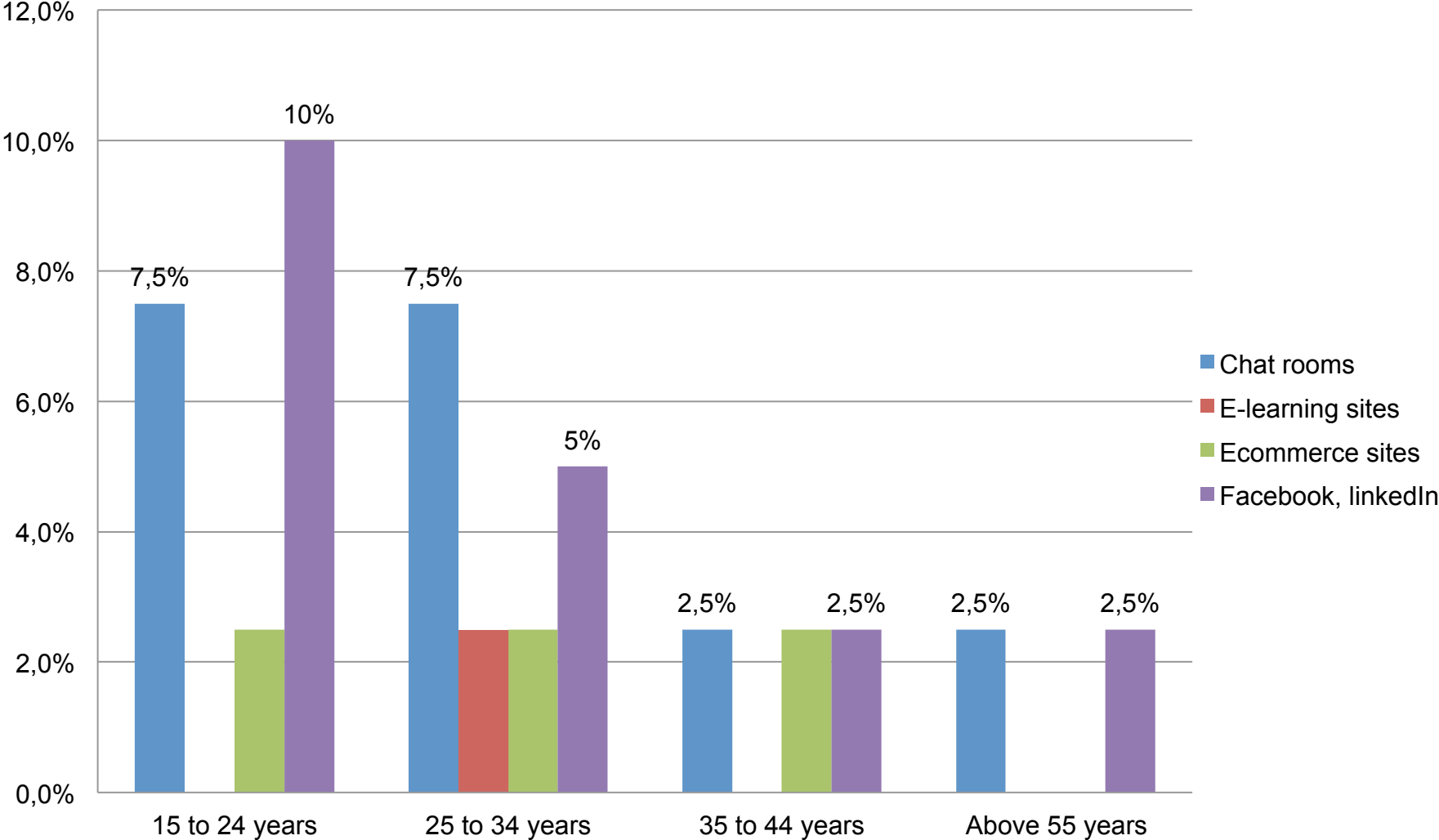
Equation 3: Mobile phones usage model

$$\hat{Y} = -3.37 + 0.01x_1 + 0.003x_2 - 0.21x_3 - 0.92x_4 + 0.12x_5 + 6.91x_6$$

Where

x1	- Age	x2	- Income
x3	- Gender	x4	- Marital status
x5	- Education level	x6	- Skills

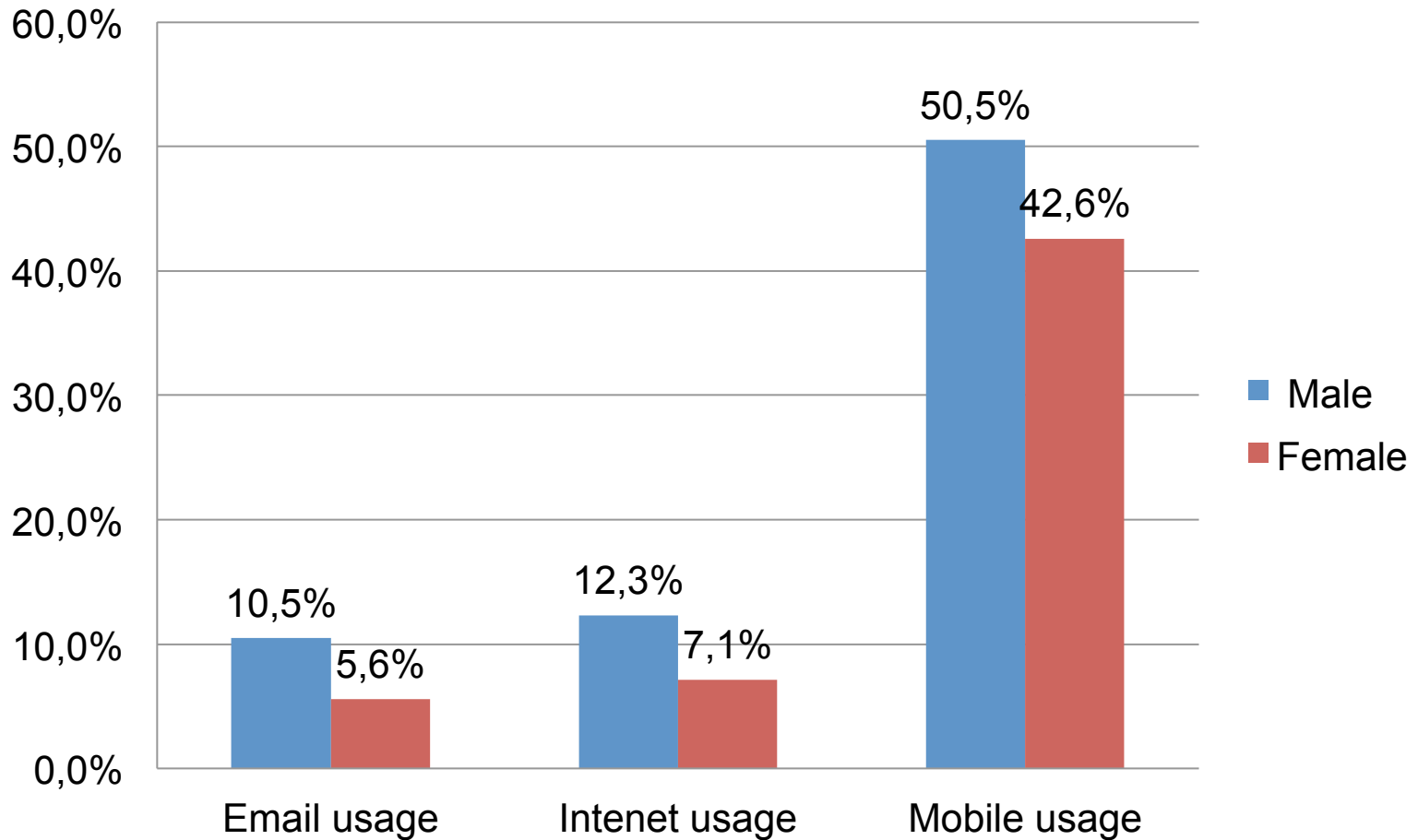
Internet features used in relation to age



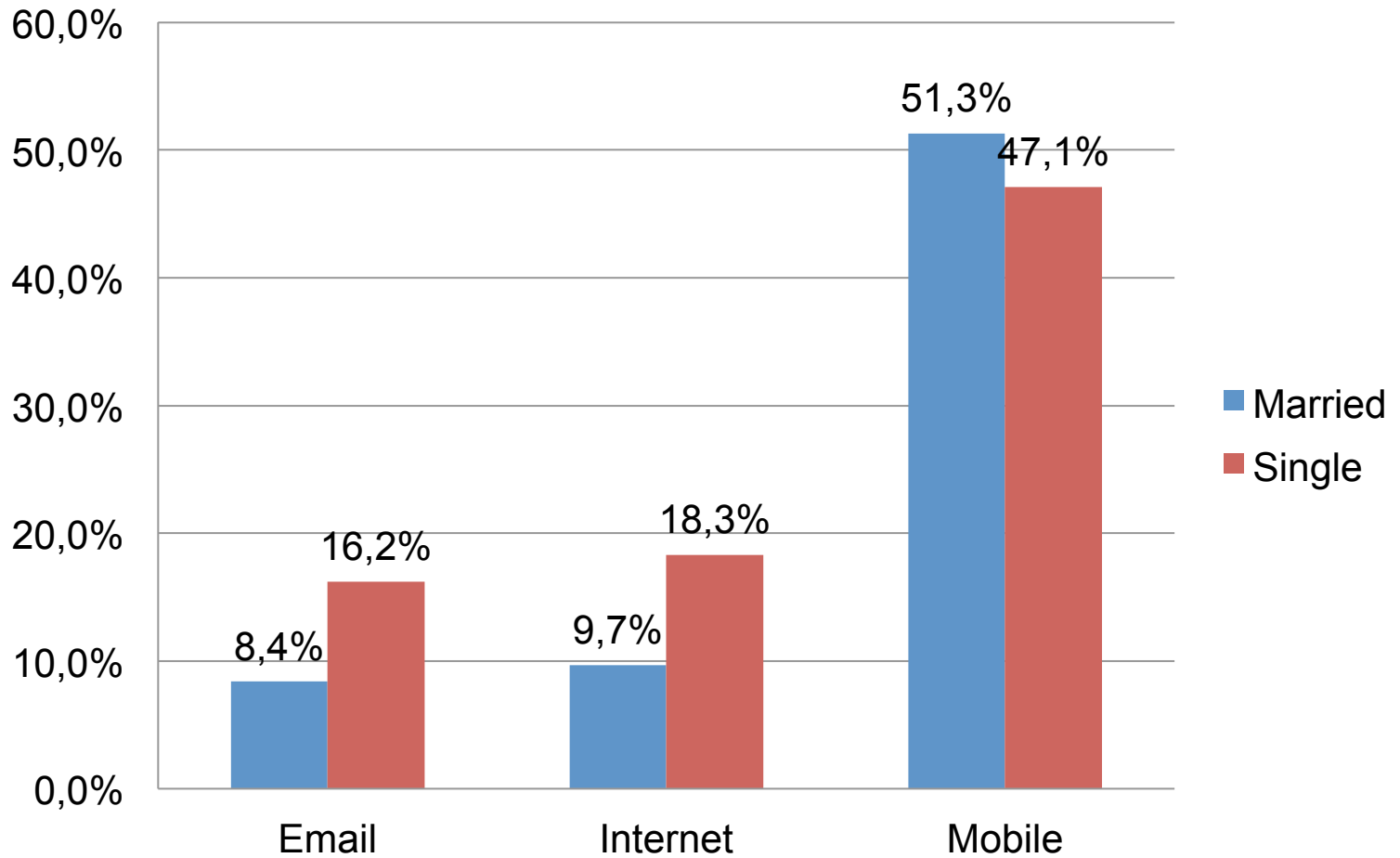
Description: Age in relation to usage

- Individuals' priorities and occupation at different ages dictated the usage pattern.
- Those in the ages of 25 - 34 yrs were using most features of the Internet.
 - 66.8% of those in formal employment were between 25 and 44 years while 16.7% were below 24 years.
 - Formal employment exposed them to Internet opportunities.

Gender in relation to usage

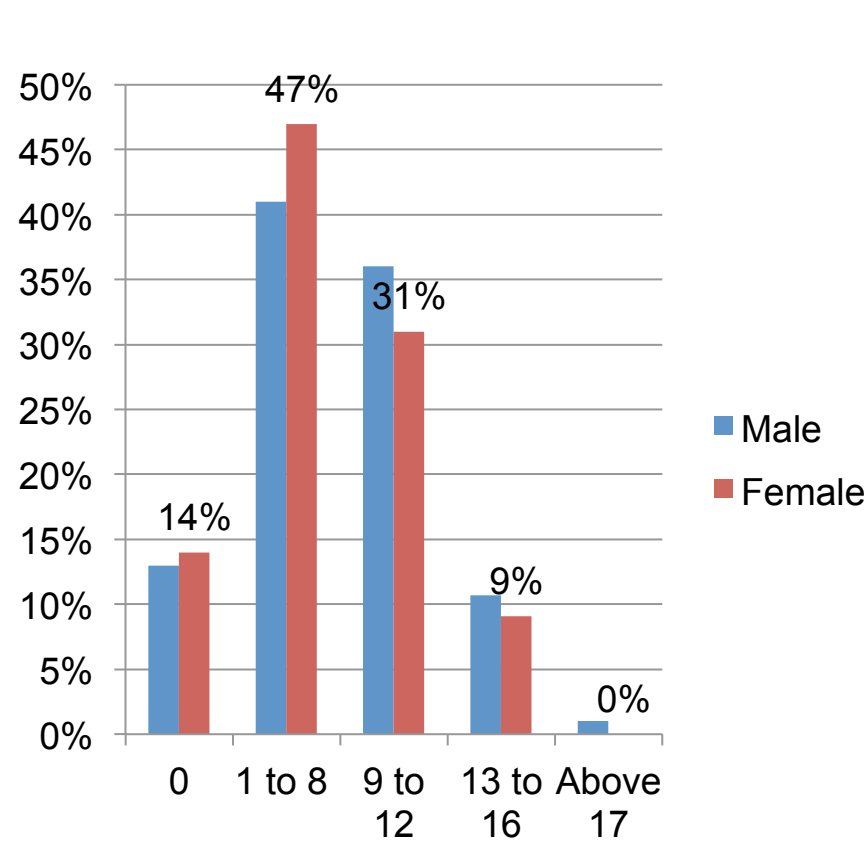


Marital Status in relation to usage

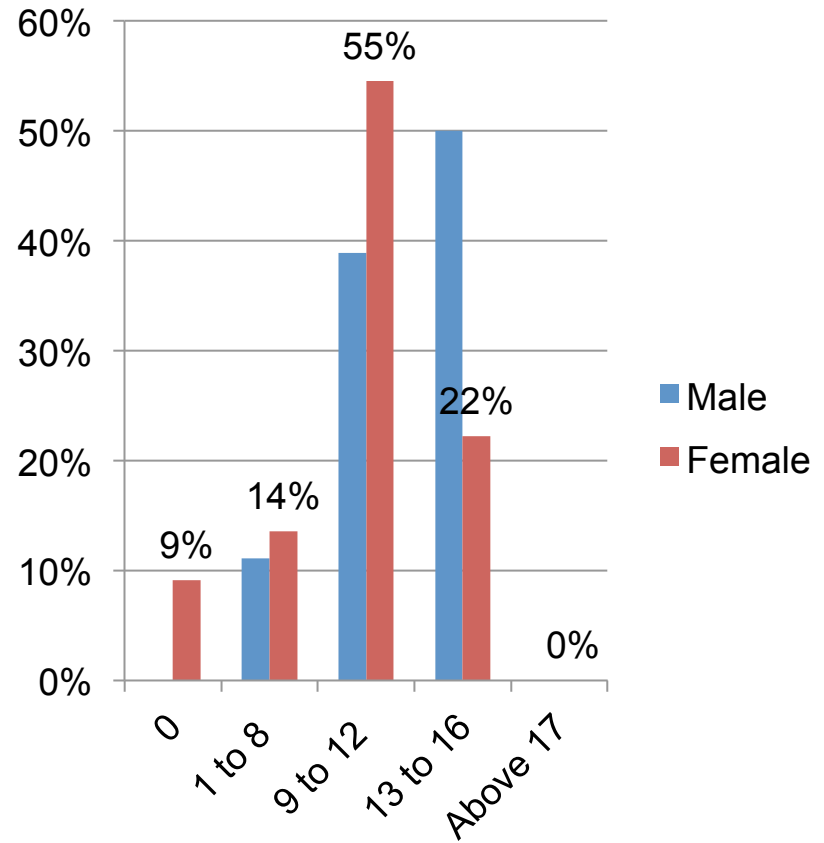


Education in relation to gender

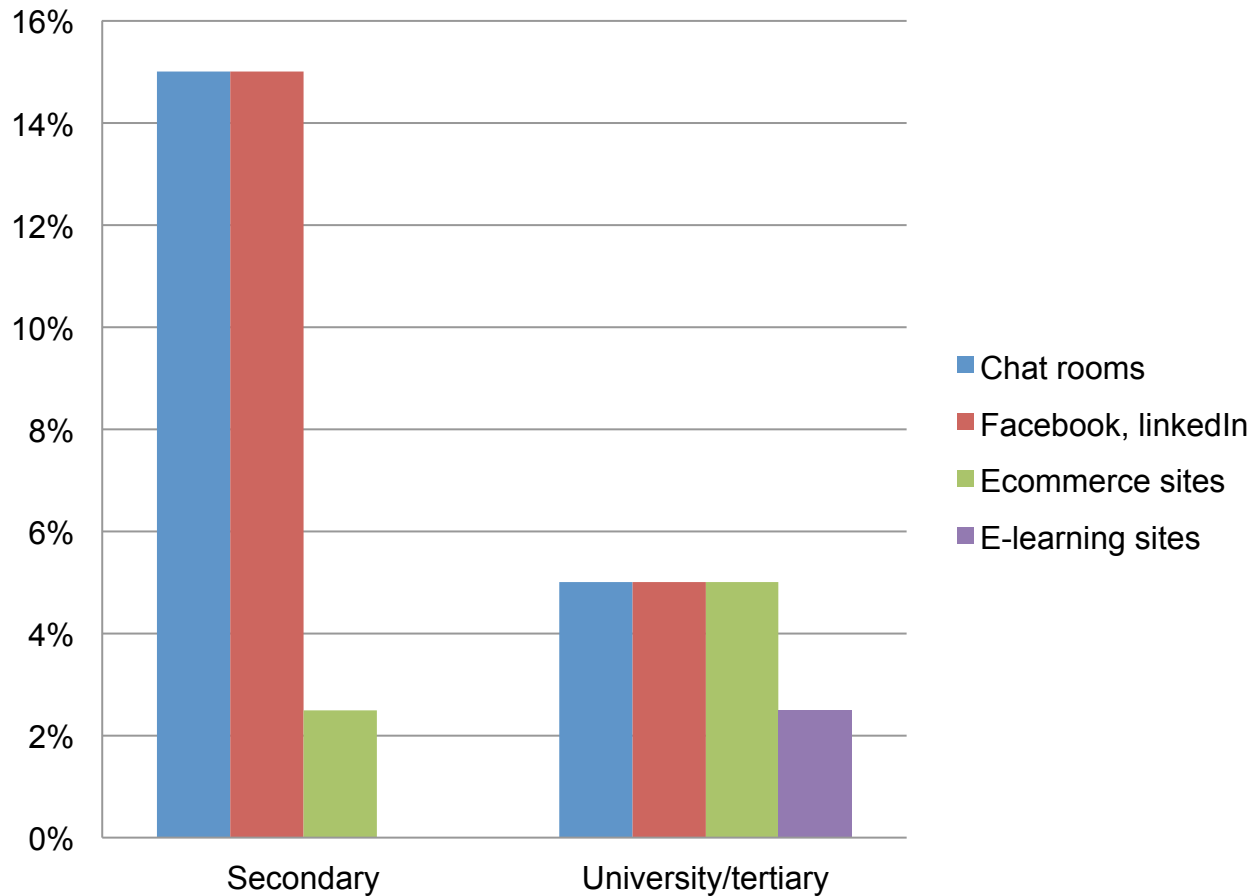
RIA 2007 data



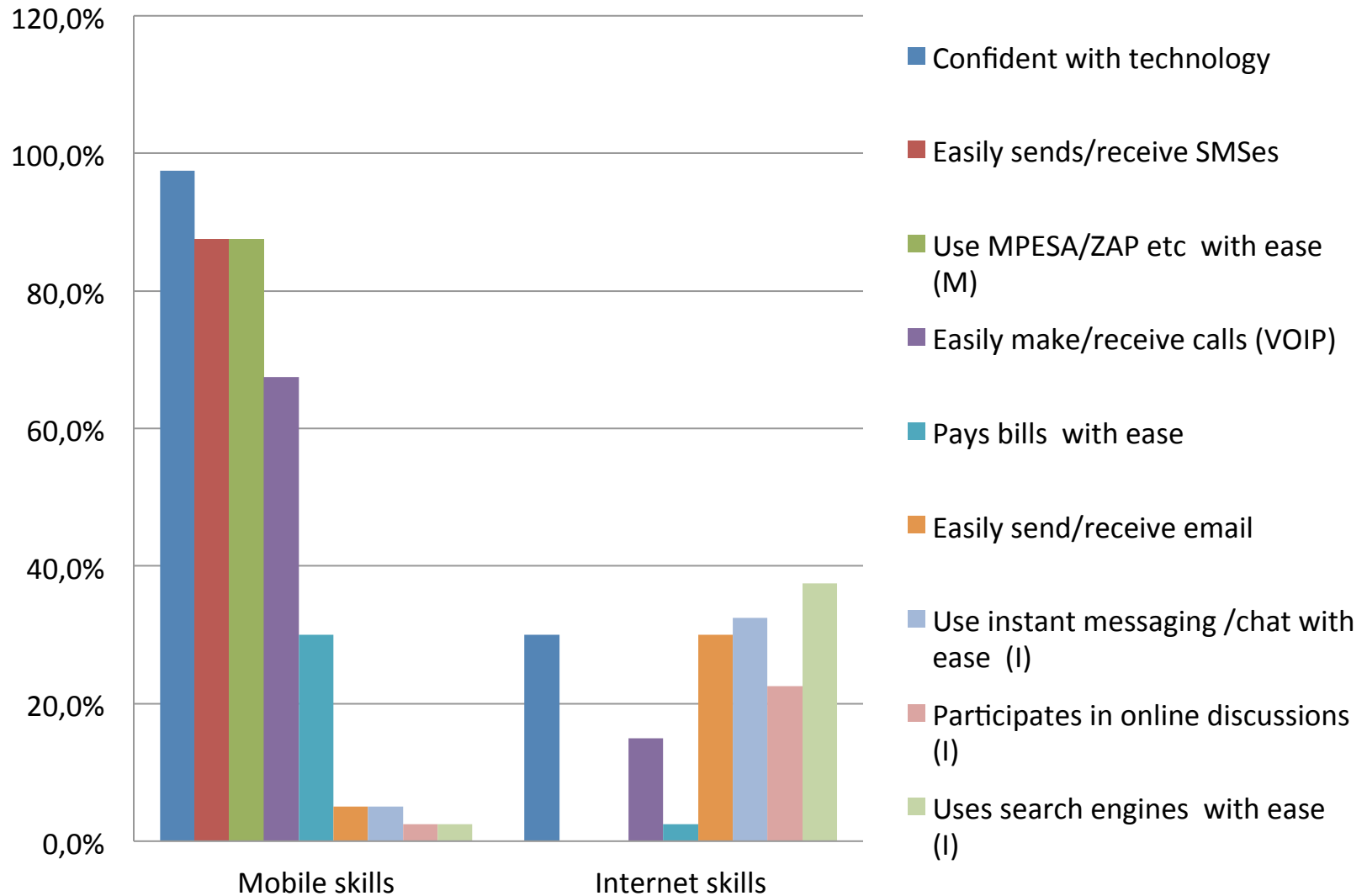
Survey 2010



Education in relation to Internet features



Skills in relation to usage



5. Conclusion

- The six factors influence usage of new technologies in low income households in diverse ways.
 - Education, skills and gender had the most significant influence on the of the usage.
 - 70% of the respondents who did not use the Internet gave lack of knowledge of how to use the Internet as the major reason for not using.
 - Increase in income led to increased usage of the mobile phones but not Internet or email
 - Different age groups use different features of the technologies
 - 58.1% of the respondents were married comprising of 35.5 % males and 64.5% married females.

6. Policy implications

- Training and skills development in productive usage of the new technologies should be emphasized.
 - 12 years of education is the threshold for individuals to utilize the productive benefits of the new technologies and in particular the Internet.
- Gender inequity in education in low income households should be addressed.

Thank you