

Discussions

Understanding the dynamic of Digital Economy in the context of Digital Literacy of Thai Households

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TMB | Thanachart

1. Definition



Literacy

Measure:

Ability to read and write

Existence:

Ancient time - present



Financial Literacy

Measure:

Knowledge
+ Attitude
+ Behavior

(OECD)

Existence:

2000's - present



Digital Literacy

Measure:

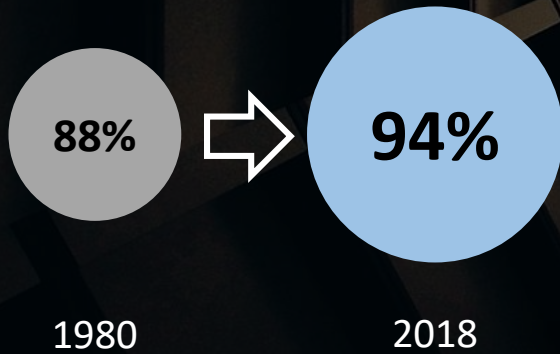


Existence:

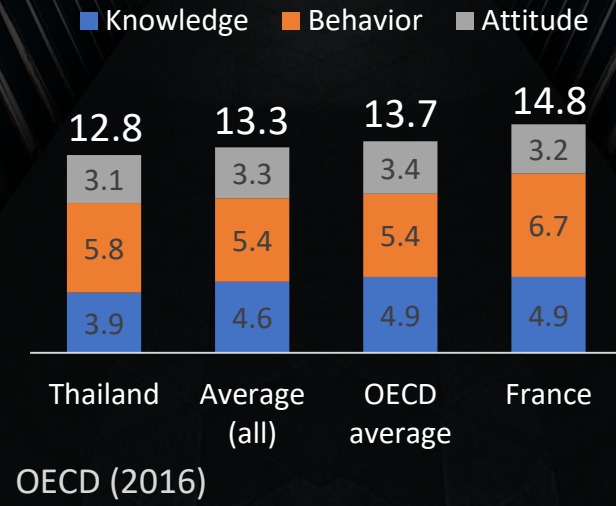
Digital literacy is **very important** for 21st Century world



Literacy



Financial Literacy



Digital Literacy

If it's important, measure it!

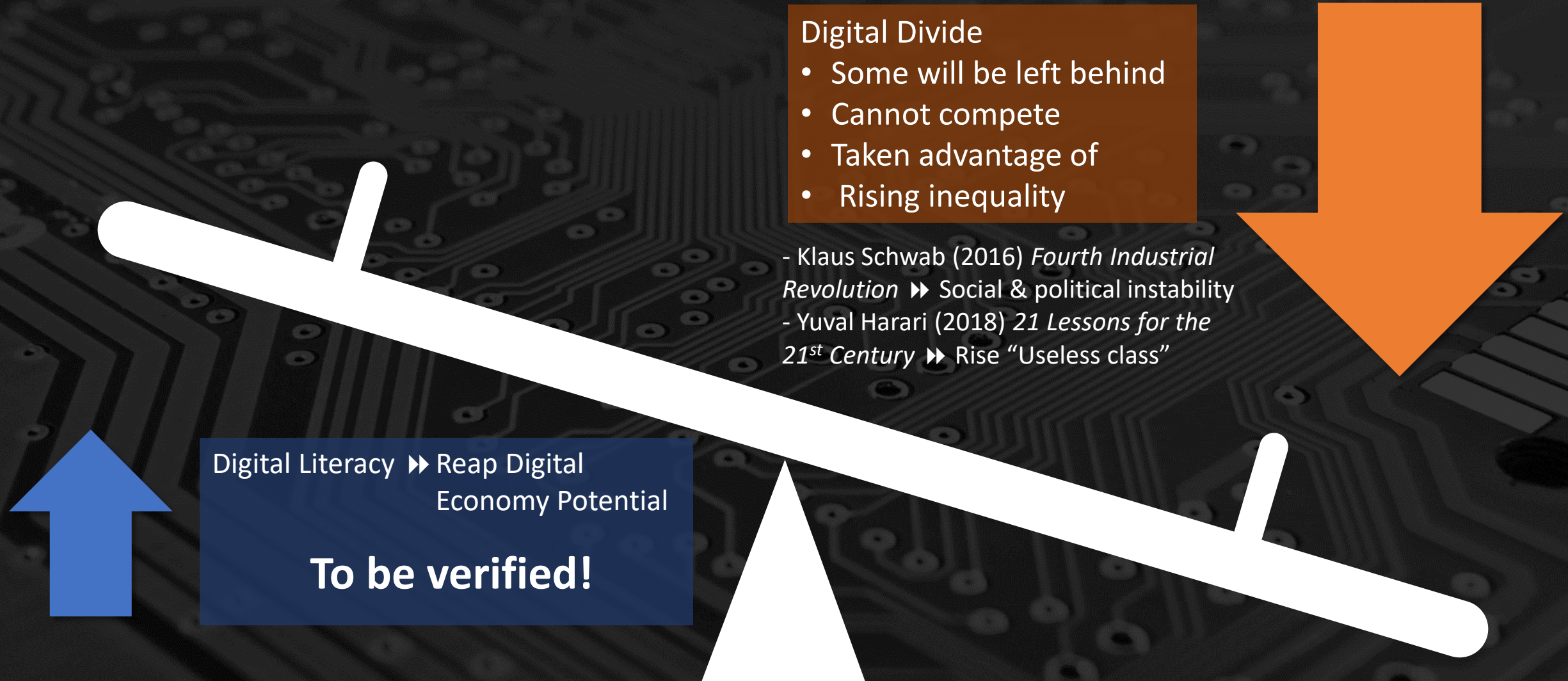
“What gets measured gets managed!”
Peter Drucker

If Digital literacy is **very important**, Let's measure it!

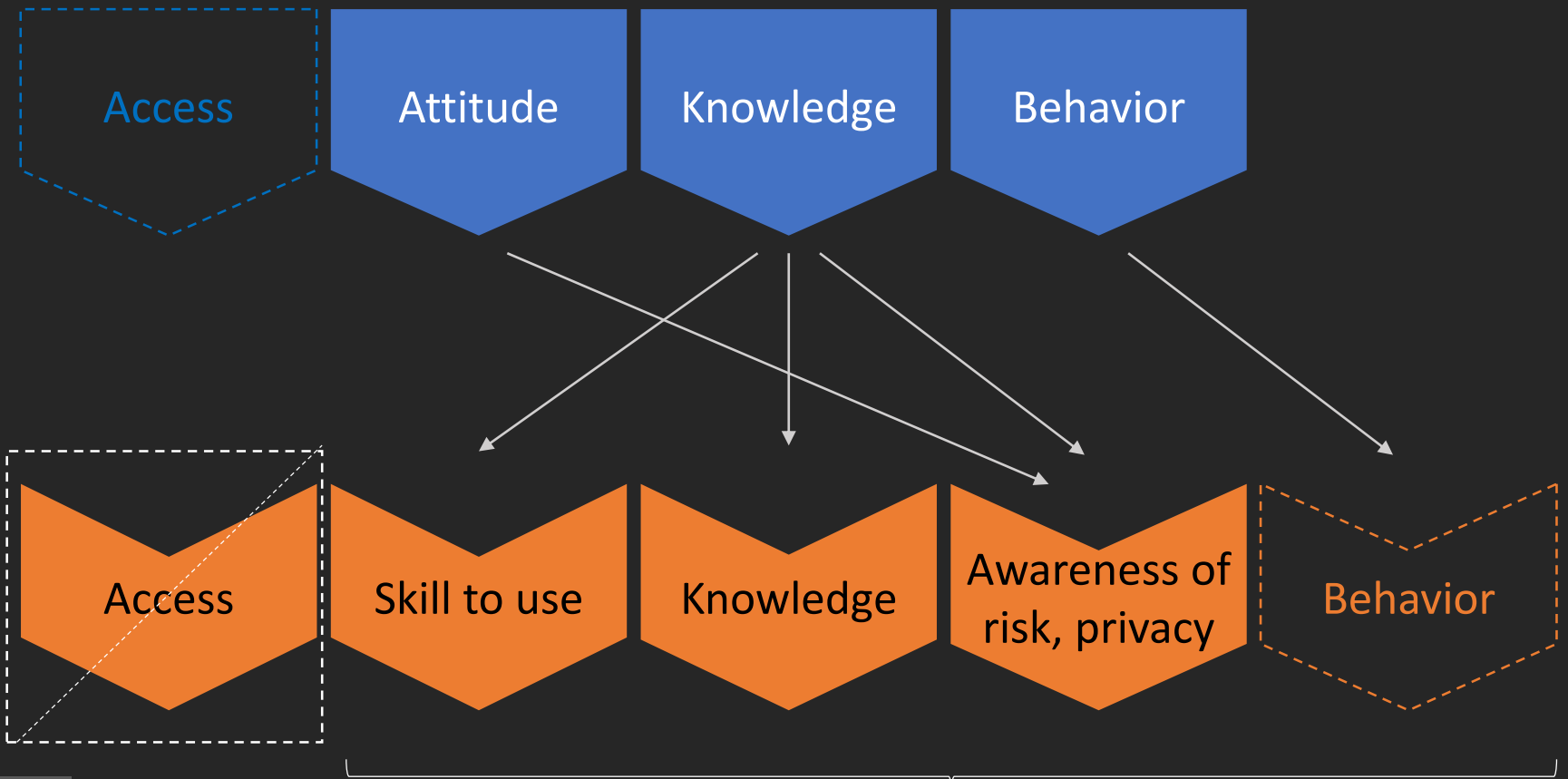
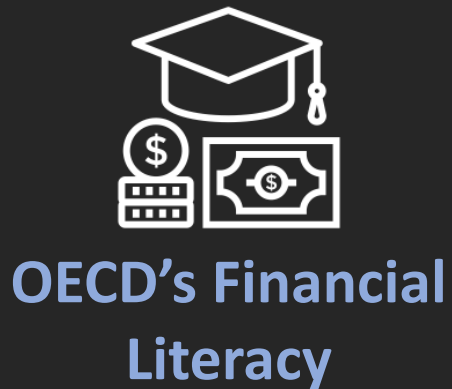
Title may be misleading:

Understanding ~~the dynamic of Digital Economy in~~ the context of Digital Literacy of Thai Households

Benefits of Digital Literacy is unclear, but the Costs of Digital Divide is almost certain



Other definitions on “Literacy” do not typically include *Access*

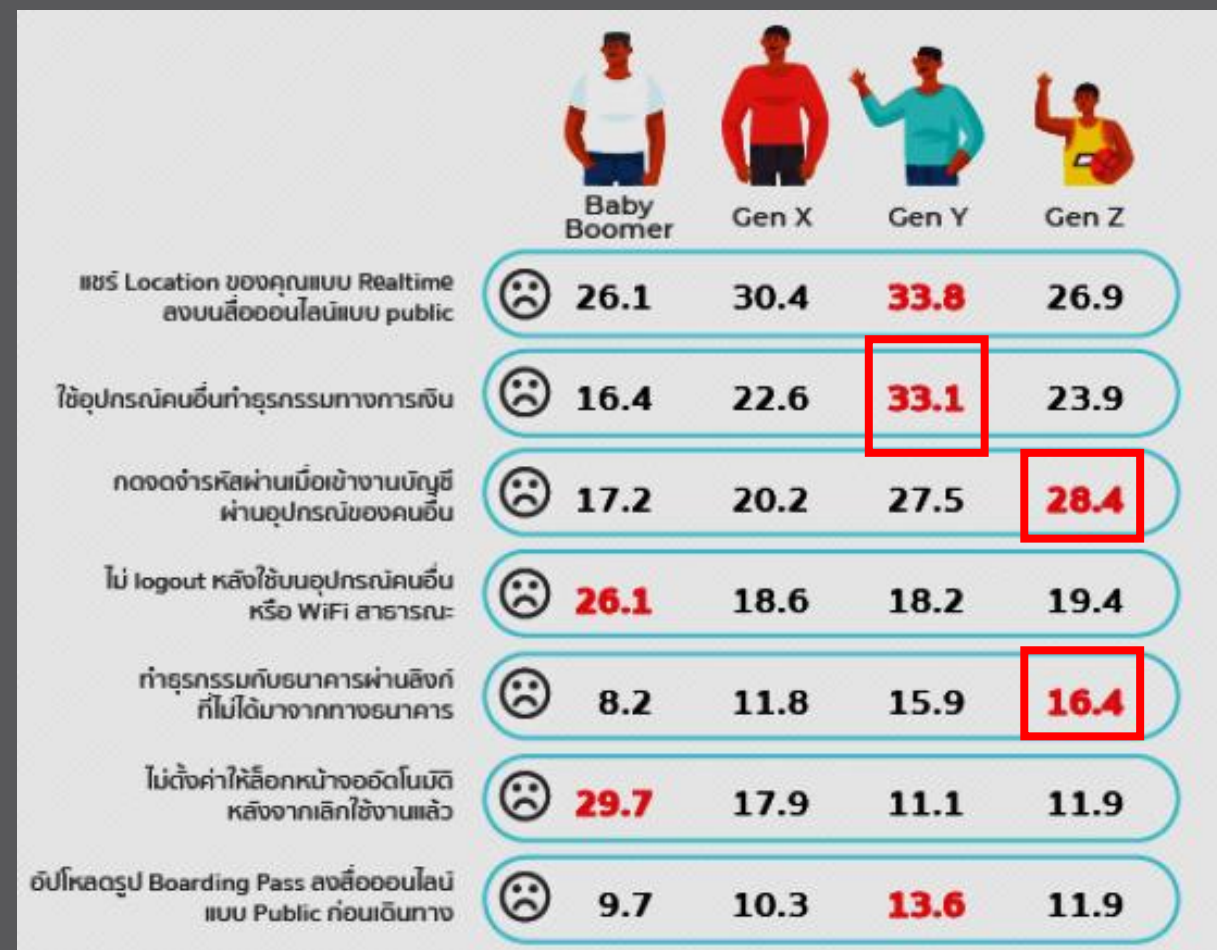
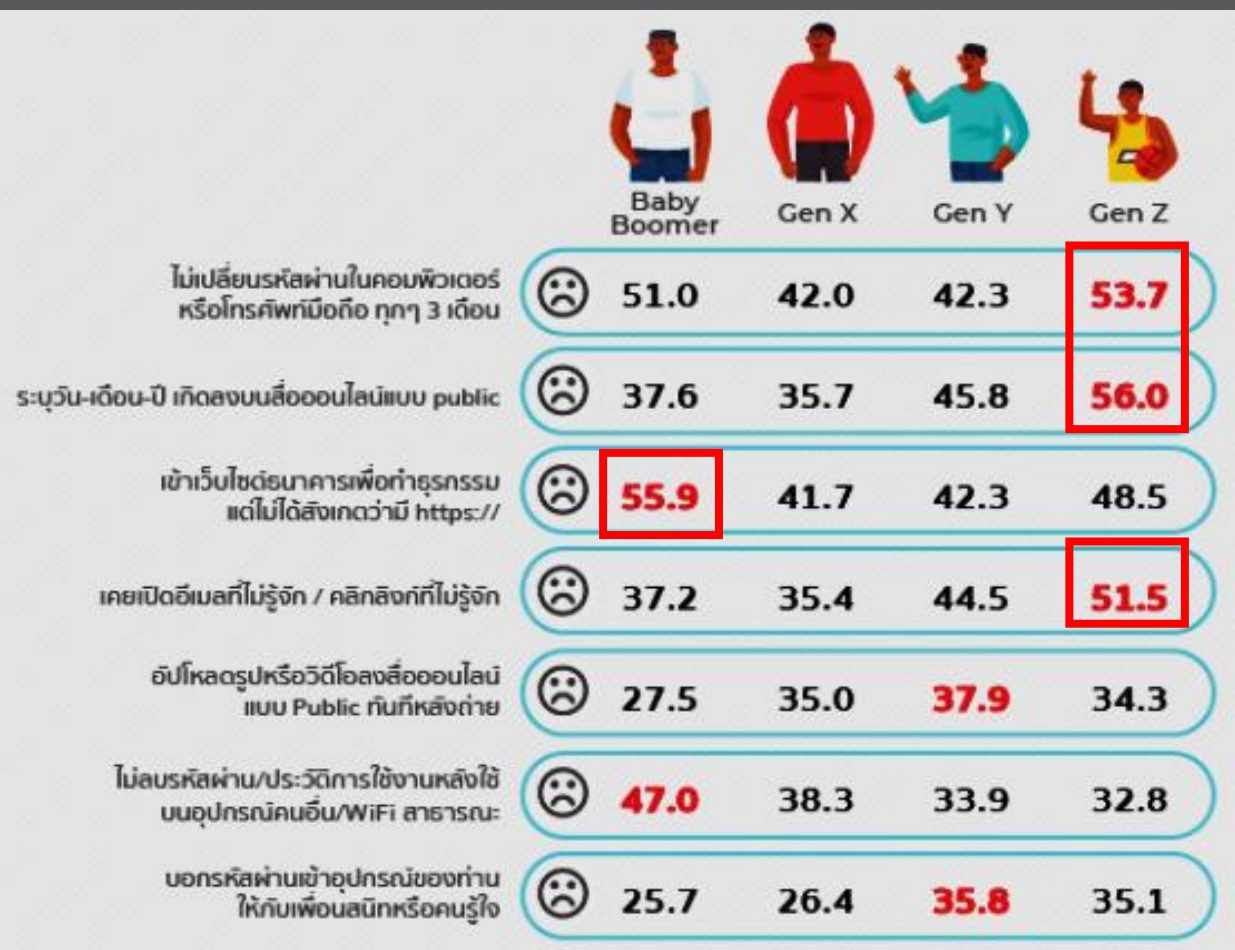


Comments:

- 1) Add “Behavior”
- 2) Separate “Access” from literacy

Relevant to “Digital Literacy”

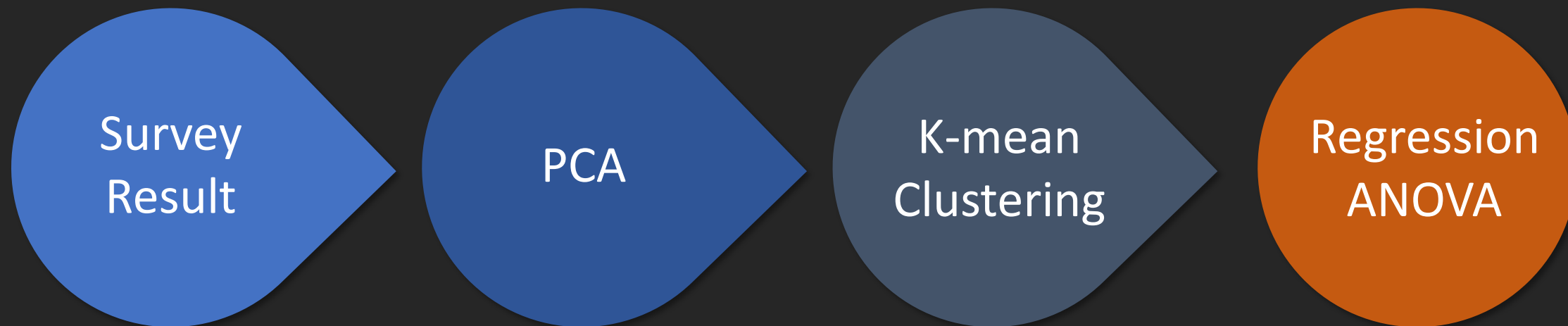
Missing Dimension on Digital Behaviors?



2. Methodology



Interesting methodology: PCA + K-mean Clustering + Regression



Gather primary data
via survey

Normalize survey
score via factor
loadings

Clustering according
to digital literacy
levels

- Digital fluency
- Digital Neutral
- Digital illiterate

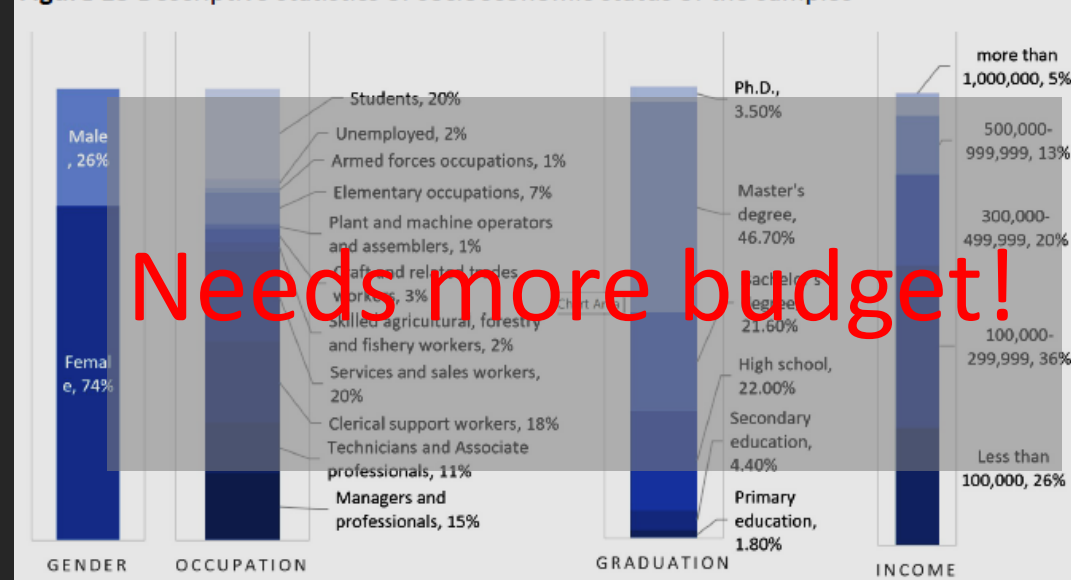
Find significant
determinants of
digital literacy

Survey results will give Insights, but may not yield Conclusion

Survey method

- 500 samples (periods?)
- Stratified by generations, but BKK only
- Visit districts and randomly select individuals until sample for each gen is filled

Figure 13 Descriptive statistics of socioeconomic status of the samples



Needs more budget!

BKK population

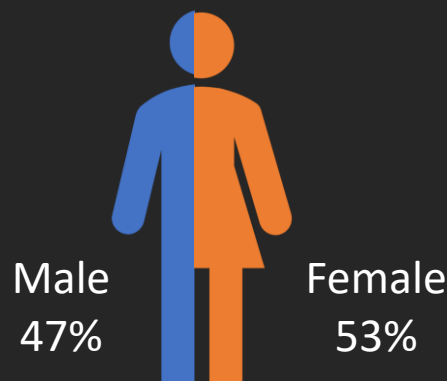
Comments:

1) Self-selection bias

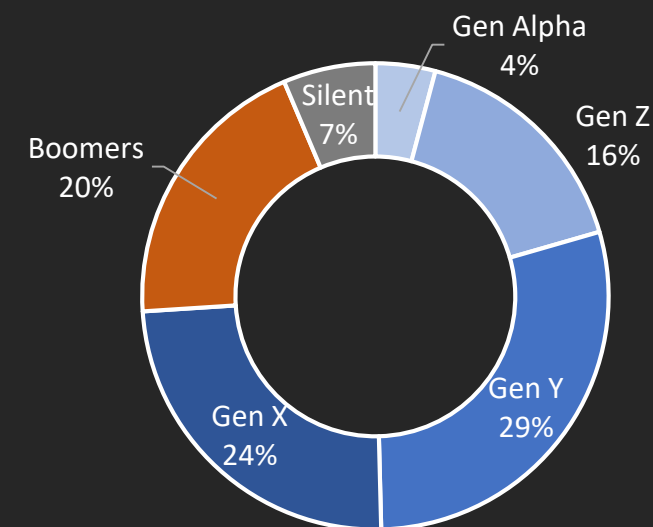
Who went to District office?

2) Bangkok bias

Are BKK Baby-boomers more literate?



Not well stratified



Well stratified

Bangkok's behaviors can be quite different than Other regions

UPC ~ BKK

	กรุงเทพมหานคร	ภาคเหนือ	ภาคใต้	ภาคกลาง	ภาคตะวันออกเฉียงเหนือ
ใช้ Social Media	91.5%	91.2%	91.0%	90.9%	91.1%
ดูหนัง/ฟังเพลง	72.3%	71.6%	66.8%	69.5%	71.9%
ค้นหาข้อมูลออนไลน์ เช่น ร้านอาหาร	74.4%	66.8%	68.0%	69.1%	66.9%
รับ-ส่งอีเมล	68.2%	51.7%	60.2%	62.5%	56.4%
ชำระเงิน ค่าสินค้าและบริการ	64.0%	56.3%	59.8%	59.6%	55.9%
อ่านหนังสือ/ข่าว/บทความออนไลน์	58.1%	54.3%	56.0%	56.3%	58.1%
ซื้อสินค้า/บริการออนไลน์	59.3%	54.6%	53.5%	57.1%	53.7%
ติดต่อสื่อสารออนไลน์	51.7%	48.2%	45.1%	48.3%	52.0%
เล่นเกมออนไลน์	36.0%	33.2%	25.7%	35.0%	31.4%
ใช้แอปพลิเคชันถ่ายทอดสด (Live)	27.4%	30.2%	34.6%	29.3%	34.6%
ดาวน์โหลดซอฟต์แวร์/เพลง/ละคร	27.5%	30.5%	27.0%	27.8%	30.7%
สั่งอาหารออนไลน์	36.8%	20.8%	17.3%	16.9%	20.3%
จอง/ซื้อตั๋ว หรือบัตร	29.8%	23.5%	29.9%	20.7%	24.1%
จองโรงแรม/ที่พัก ออนไลน์	29.6%	21.9%	27.7%	22.3%	23.6%
เรียนออนไลน์ (e-Learning)	23.9%	26.2%	24.9%	22.1%	27.8%
ใช้บริการรถโดยสารออนไลน์	30.8%	15.2%	13.2%	13.2%	15.4%
ใช้งานบริการภาครัฐผ่านระบบออนไลน์	19.7%	19.0%	19.9%	21.9%	20.1%
รับ-ส่งสินค้า/พัสดุ/เอกสารออนไลน์	19.5%	19.2%	17.6%	16.9%	15.2%
ขายสินค้าและบริการออนไลน์	16.8%	16.2%	16.0%	15.1%	13.7%
หางาน/สมัครงานออนไลน์	15.0%	12.5%	11.4%	11.2%	12.3%
ซื้อขายสินทรัพย์เพื่อการลงทุนออนไลน์	16.0%	8.8%	9.7%	10.9%	9.6%

ETDA (2020).
Thailand Internet
User Behavior 2019.

Others < BKK

Others > BKK

Others < BKK

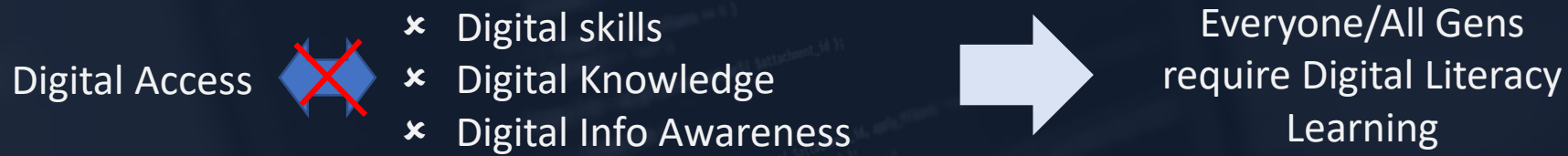
Others > BKK

Others > BKK

3. Results

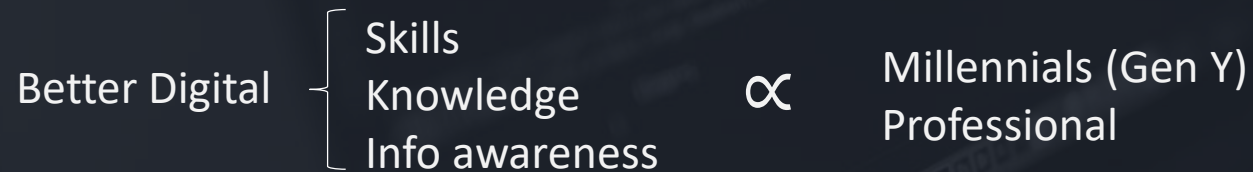
Digital Access and Young Gen do not guarantee Digital Literacy

Table 8:



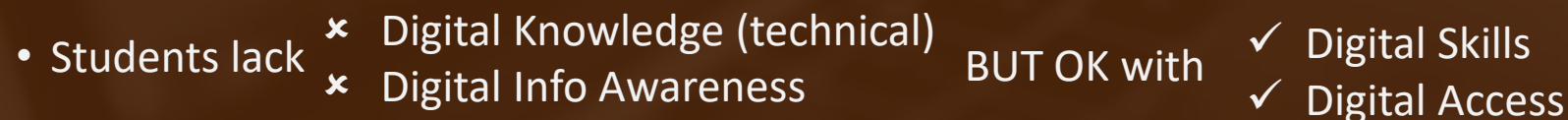
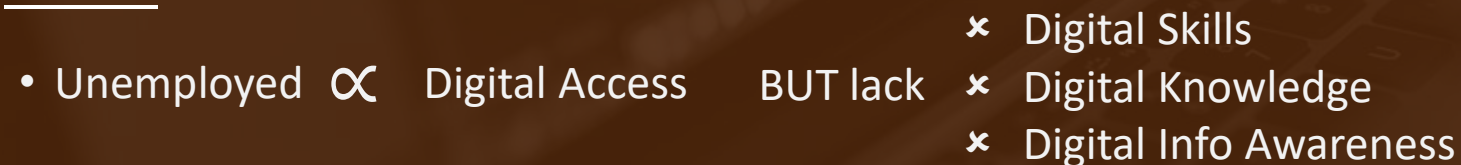
Digital Access &
Digital Literacy
are two different
things

Table 14



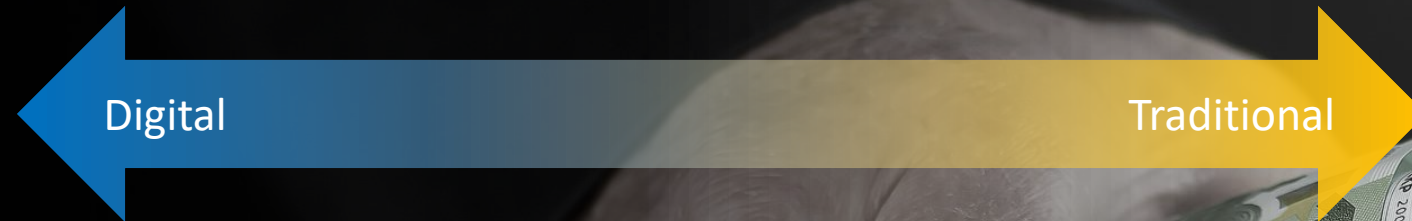
Workplace
strengthen digital
literacy?

Table 9



Younger
generations and
unemployed
required
upskilling &
reskilling

Banking Preferences: Take survey results further



Respondent Expectations	Mobile banking features	Convenience in ATMs	Convenience in Branches
Digital Fluency	✓ ✓	✓	✓ ✓
Digital Neutral	✓		✓
Digital Illiterate		✓	✓

Banks

Service designs at each channel will be different

What do each group use Mobile Banking for?

What do each group use Branch Banking for?

Correlation vs. Causality: May draw different conclusions

Higher Income \leftrightarrow Higher $\left\{ \begin{array}{l} \text{Digital Skills} \\ \text{Digital Knowledge} \\ \text{Digital Awareness} \end{array} \right. = \text{Digital Literacy}$

What causes what?
Possibly test with some
instrument variables Z.

↑ Digital Literacy \rightarrow "Use banking in more productive way"
p. 38

No evidence provided.
Causality is unclear.

"Appropriate level
of Digital Literacy" \rightarrow "Could work in high ranking position
and receive high incomes"
p. 44

Evidence is not
enough to reach this
conclusion. Requires
study of Digital
Literacy and Labor
Market impact

"Low level of
digital literacy" \rightarrow "Cause of unemployment"
p. 44

4. Policy Recommendations

Policy designs to lift Digital Literacy for each target groups

▲ ACCESS Thailand seems to be already good at this.



Key Challenge: Strike Balance
Easy access v.s. Security

▲ SKILL (Z, Y, X, Students, Professionals are significant)



**Hands-on
Experience is Key**

Key Challenge:
More productive use

▲ KNOWLEDGE (Only Professionals are key determinants)



**Education
or
On-the-job Learning**

Key Challenge:
Who teaches & where?

▲ AWARENESS OF RISKS



ETDA
สวสอ
www.etda.or.th

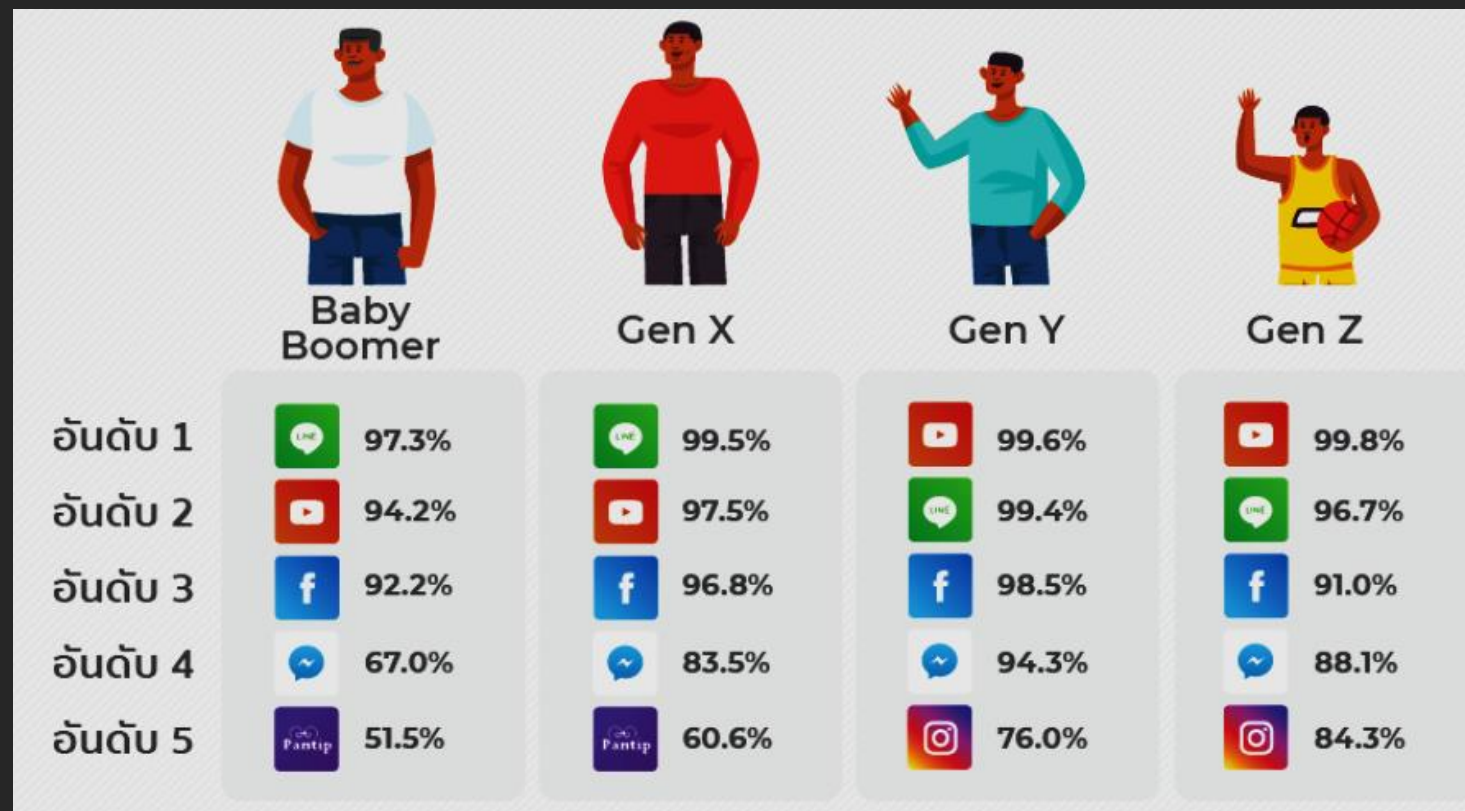
ThaiCERT
Thailand Computer Emergency Response Team
a member of ETDA

฿ 📞 😊 **ศคก**
Ins.1213 ศูนย์คุ้มครองผู้ใช้บริการทางการเงิน
ธนาคารแห่งประเทศไทย



สมาคมธนาคารไทย
THE THAI BANKERS' ASSOCIATION

Targeted towards their digital behaviors may be the success factor



Key Challenge:

**Right
content**

**Right
channel**

**Right
moment**

Interests and
use cases are
very different



LEAGUE OF
LEGENDS
ARENA OF
VALOR



TiMB | **Thanachart**

Thank you