

# SOCIO-ECONOMIC FACTORS INFLUENCING DIGITAL INCLUSION IN THAILAND

ปัจจัยทางเศรษฐกิจและสังคมที่มีอิทธิพลต่อการมีส่วนร่วมดิจิทัลในประเทศไทย

Kunagorn Kunavut 6110323032

## BACKGROUND

### Introduction

- Thailand has been transforming to Digital Thailand since 2015 to drive the country towards stability, sustainability & wealth.
- Digital Inclusion illustrates the readiness of societies to provide access to better opportunities in digital era.
- Since then a few people have studied the factors affecting digital inclusion.

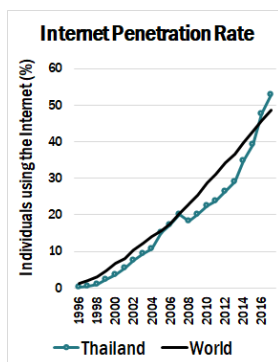
### Objectives

To develop an economic model to study & analyze the key factors in determining digital adoption in Thailand which also includes:

- how income affects digital inclusion,
- whether there exists a lack in digital literacy in each educational stage,
- whether innovation could increase the likelihood of digital adoption in Thailand.

## LITERATURE REVIEW

- Malisuwan et al. (2016) analyzed digital divide by using mobile phone and Internet penetration. Digital inclusion determinant was not discussed here.
- Srinuan et al. (2012) used mobile Internet penetration to represent digital inclusion. A certain no. of people still use fixed Internet. Hence, using only mobile Internet penetration to represent digital inclusion is not quite accurate.
- Srinuan et al. (2012) and Kilenthong and Odton (2014) used data in 2002-2010 to analyze digital inclusion. However, Thailand have proposed digital economy since 2015. Thus, digital inclusion indicator growth rate & factors used in those period may not accurately represent the digital inclusion characteristics & determinants nowadays and in the future.



## METHODOLOGY

### Data

All data are collected from the World Bank. The World Bank is an international organization that is responsible for ending poverty and promoting shared prosperity. In addition, these volume of data contains annual data starting from 1996 to 2017

### Econometric Model

$$Y_t = \alpha + \beta_1 X_{1,t} + \beta_2 X_{2,t-1} + \beta_3 + \beta_4 X_4 + \beta_5 X_{5,t-3} + \varepsilon_t$$

where

- $\alpha$  is intercept term,
- $Y_t$  is growth of Internet penetration rate or **INT**,
- $X_{1,t}$  is growth of income or **INC**,
- $X_{2,t-1}$  is growth of primary education enrollment or **PRI** with one-year lag,
- $X_{3,t-1}$  is growth of secondary education enrollment or **SEC** with one-year lag,
- $X_4$  is growth of tertiary education enrollment or **TER**,
- $X_{5,t-3}$  is growth of innovation or **INN** with three-year lag,
- $\varepsilon_t$  is error term.

## ECONOMETRIC RESULTS

Variables	Coefficient	Standard Error	T-Test	P-Value
Constant*	9.9972	5.5373	1.8054	0.0961
INC	0.5489	0.7203	0.7620	0.4608
Lag 1 of PRI***	5.7451	1.5919	3.6091	0.0036
Lag 1 of SEC**	-0.6889	0.2792	-2.4676	0.0296
TER**	1.5357	0.5995	2.5619	0.0249
Lag 3 of INN**	0.2596	0.1082	2.3985	0.0336
F-Test***		5.1554		
P-Value (F-Test)		0.0094		
R <sup>2</sup>		0.6824		
Adjusted R <sup>2</sup>		0.5499		

Note: \*, \*\*, \*\*\* represent significance at 10%, 5%, and 1% levels, respectively.