



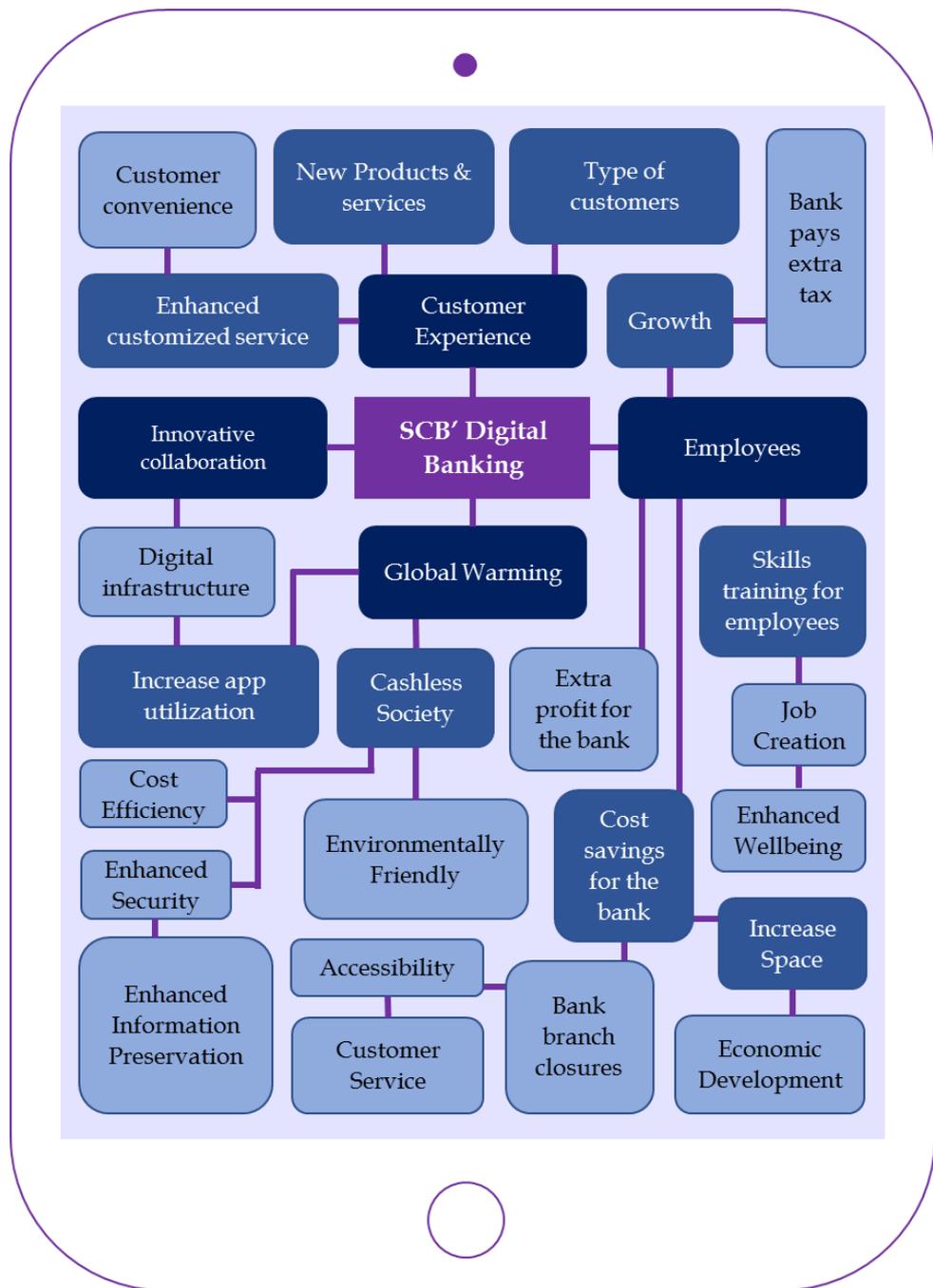
SCB IMPACT VALUATION ON DIGITAL BANKING

Executive Summary

1.1 DIGITAL TRANSFORMATION

Thailand’s journey to digitization is a key part of the “Thailand 4.0” economic model and there are ambitious plans to make Thailand the digital capital of South East Asia¹ and the banking sector is playing a key role in the transformation. The diagram below shows some of the impacts of digital banking for banks, customers and society at large.

Figure 1 Direct and Indirect impacts of digital banking



¹ http://www.boi.go.th/upload/content/2017-07-24/%20Thailand%204.0%20-%20Digital%20Economy%20002_35798.pdf

Siam Commercial Bank (SCB) was established as Thailand's first local bank, and has been supporting Thai society for over 100 years. SCB aims to be a truly digital bank and has designed and implemented the 2016-2020 "SCB Transformation" to ensure that the Bank create products and services that help facilitate customers' lifestyle and create value in the new digital era¹.

Accordingly, SCB has introduced an impact valuation methodology that examines economic, social, and environmental impacts from the Bank's digital activities. This encompasses both positive and negative externalities while attempting to monetise the true value of our contribution to society.

1.2

IMPACT VALUATION

The purpose of this document is to provide a summary of the:

1. Methodology to identify, quantify and monetize the impacts of SCB's digital transformation (Section 2);
2. Main impacts associated with SCB's digital banking activities (Section 3);
3. Initial results for measurement & valuation (Section 4).

¹ For more detail about SCB's strategy to digital banking, see page 46-49 of the 2018 Sustainability Report.

2.1 SOCIAL CAPITAL PROTOCOL AND NATURAL CAPITAL PROTOCOL

The Social Capital Protocol¹ and Natural Capital Protocol² are internationally-recognized frameworks to help organizations value the social and environmental impacts of their activities. The protocols help organizations as well as SCB to make better decisions on the management of natural capital and social capital.

2.2 KEY CONCEPTS

Externality: A cost or benefit that affects a party who did not choose to incur that cost or benefit.

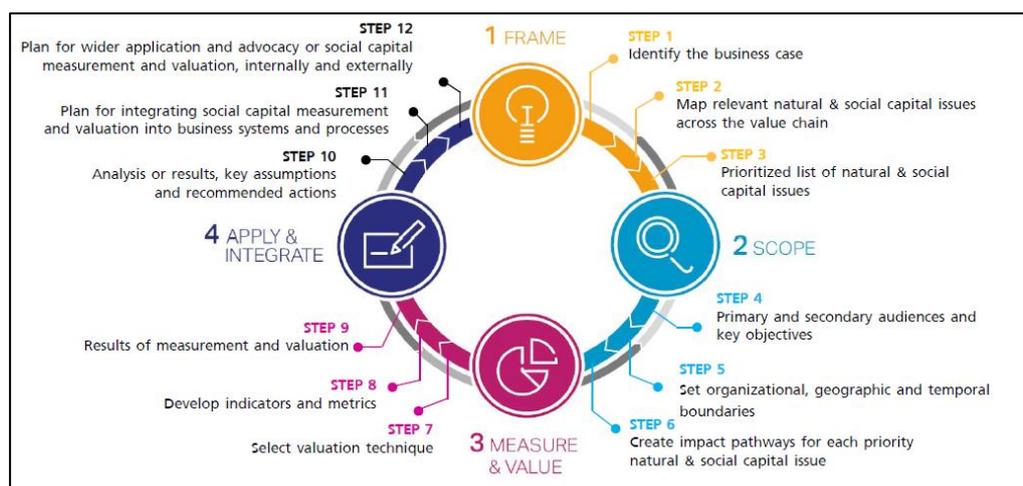
Natural Capital: Renewable and non-renewable natural resources (e.g., plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people.

Social Capital: Resources and relationships provided by people and society.

2.3 BROAD STAGES OF THE PROTOCOLS

There are four broad stages set out in the protocols, and SCB has worked through each step to value the main impacts of its digital transformation.

Figure 2 *Impact Valuation Framework (Source: Adapted from Natural Capital Protocol and Social Capital Protocol)*



¹ <https://www.wbcsd.org/Clusters/Social-Impact/Social-and-Human-Capital-Protocol/Resources/Social-Capital-Protocol>

² <https://naturalcapitalcoalition.org/protocol/natural-capital-protocol/>

2.3.1 *Frame*

Thinking in terms of natural and social capital can help SCB achieve its vision of being “The Most Admired Bank”. It complements the Bank’s long-term journey through foundation transformation and business transformation.

As introduced in Section 1, Thailand’s digital transformation will have major natural and social capital implications. For this reason, SCB’s digital banking program was chosen in 2017 to pilot the methodology and continue the exercise in 2018.

2.3.2 *Scope*

The key objective for this exercise is to help SCB and stakeholders understand the Bank’s main impacts, and for SCB to make better decisions in the future by minimizing negative externalities and maximizing positive externalities.

During the scoping process, the Bank worked with external consultants to consider the main social and environmental impacts of digital banking activities. Some potential impacts were deemed to be mainly economic and internal (for example, potential benefit for customers on more efficient digital products and services is largely reflected in SCB’s operating profits). All impacts are measured for the year 2018, and the Bank has attempted to consider impact throughout the whole value chain where applicable. The impact pathways for priority issues are described in Section 3.

2.3.3 *Measure & Value*

Initial results are set out in Section 4 of this document.

2.3.4 *Apply & Integrate*

SCB is currently reviewing the results of 2018 year’s valuation exercise and hope to apply the methodology to a wider range of activities in the future. Some of the questions considered were:

- What can SCB do further to maximize the positive externalities (and minimize the negative externalities) of its transition to digital banking?
- How can SCB engage companies or other entities to take action to minimize negative impacts?
- Should SCB explicitly account for natural capital-related externalities in our decision-making (e.g., through including a ‘shadow’ carbon or water price in future decisions)?
- Can SCB identify new opportunities for products or services, related to natural or social capital?
- How can SCB use this methodology to measure and value impacts of a broader range of its activities?

During the scoping exercise, three impacts were identified as significant, however, the Bank were still unable to carry out quantitative valuation in 2018. Reasons for this include confidentiality and lack of data:

- Change in financial management (e.g. saving or borrowing rates);
- Security and integrity of Thailand's banking system;
- Social costs of waste (e.g. decrease in water and paper waste, but increase in e-waste).

Below are the final selected impacts. These include: (i) Wellbeing of SCB Employees – number of jobs/salary; (ii) Wellbeing of SCB employees - quality of work; (iii) Customer experience - innovative collaboration; (iv) Customer experience – access to banking services; (v) Natural resource scarcity – water; (vi) Contribution to and effects of global warming. An impact can be shown as the final consequence of an 'impact pathway':



3.1

WELLBEING OF SCB EMPLOYEES (NUMBER OF JOBS /SALARY)

The consequences of the additional jobs relate to new employment creation and long-term earnings potential, which will change the wellbeing of employees, dependents and communities.

3.2

WELLBEING OF SCB EMPLOYEES (QUALITY OF WORK)

The continuous SCB's 'People Transformation Programme' helps uplift employees' capabilities and ability to tackle the challenges of the digital age.

3.3

CUSTOMER EXPERIENCE - INNOVATIVE COLLABORATION

SCB is a leading bank in Thailand and its size means that collaborations with other organizations create implications far beyond its own operations. In other words, there are externalities (for instance, due to 'network effects').

SCB's innovative collaborations have contributed to the establishment and development of digital infrastructure in Thailand. Overall, the benefits of this digital infrastructure to the economy include increased sales and incomes for small businesses and retailers (e.g. digital transactions, creation of financial ecosystem).

3.4 *CUSTOMER EXPERIENCE - ACCESS TO BANKING SERVICES*



This has two main assumptions:

1. A product/service is "accessible" if the proportion of each demographic group within the user population parallels the proportion of the same demographic groups within the larger population set.
2. The accessibility patterns for SCB's non-digital banking would have applied to all SCB customers if there was no digital banking.

3.5 *NATURAL RESOURCE SCARCITY - WATER*



A reduction in water withdrawal is anticipated as SCB transitions to digital banking. There are two main impacts that are examined in this analysis of SCB's water withdrawal rates: a) Data centres and IT support facilities required for SCB's digital banking services; and b) Closure of SCB branches because of the transition to digital banking.

3.6 *CONTRIBUTION TO AND EFFECTS OF GLOBAL WARMING*



Electricity use is a proxy for GHG impacts of SCB's digital banking. There are two main impacts here: a) Data centres and IT support facilities required for SCB's digital banking services; and b) Closure of SCB branches because of the transition to digital banking.

4 *MONETIZED VALUATION*

4.1 *WELLBEING OF SCB EMPLOYEES (NUMBER OF JOBS /SALARY)*

Impact is calculated by multiplying the number of additional 'digital banking' jobs created in 2018 by the associated staff costs incurred by SCB.

Although the Bank has carried out monetary valuation, much of this impact is internalized - SCB pays employees a market salary, and employees contribute to SCB's business operations. However, if the Bank were able to show that some of the jobs were created in areas of high unemployment, and provided opportunities which would otherwise not have existed, this is considered to be an externality.

4.2 *WELLBEING OF SCB EMPLOYEES (QUALITY OF WORK)*

To estimate wider social impacts, we consider only employees who leave SCB (training means increased productivity and efficiency for the company, and hence effects are already internalized in SCB's financial results).

Impact is therefore calculated by multiplying a) the total 'digital banking' training spend in 2018 by b) the annual turnover rate and c) the social return rate on education.

4.3 *CUSTOMER EXPERIENCE - INNOVATIVE COLLABORATION*

For this impact, we consider SCB's collaboration with various organizations, agencies and entities in building an inclusive financial ecosystem that houses products and services to facilitate daily activities and provide a wide variety of solutions to all groups of customers. The Bank has gathered data on the number of transactions using SCB's technology and behaviour change associated with digital expenditures ('cashless effect').

4.4 *CUSTOMER EXPERIENCE - ACCESS TO BANKING SERVICES*

Digitization has led to mixed results. With regards to accessibility for women, there appears to be an improvement. However, there is evidence that digital banking is less accessible for elderly groups and rural residents. Note that this impact is quantified, but not expressed in monetary terms - it is not shown in the monetized results below.

4.5 *NATURAL RESOURCE SCARCITY - WATER*

There was a moderate overall reduction in water use: water use by data centres and IT support facilities required for SCB's digital banking services was more than offset by the closure of SCB branches. The shadow water price used to determine the

societal cost of SCB's water consumption was derived from the NCD-VfU-GIZ Water Scarcity Valuation Tool.

4.6

CONTRIBUTION TO AND EFFECTS OF GLOBAL WARMING

There was a significant overall reduction in electricity use: electricity use by data centres and IT support facilities required for SCB's digital banking services was more than offset by the closure of SCB branches. The social cost of carbon per unit used in this analysis was extracted from PwC methodology.

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