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Financial Literacy in Asia: A Scoping Review

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(Updated by December 5, 2020)

Abstract

This chapter is to provide an overview of financial literacy in Asia, describe financial literacy education in Asian countries, and propose recommendations for policy makers. The chapter demonstrates that: 1) Financial literacy is an important factor contributing to consumer financial capability and wellbeing in Asia; 2) Financial literacy national strategies and education programs in Asian countries are beneficial for consumer wellbeing and economic developments; and 3) Public policies promoting financial literacy education can be compatible with the socio-economic development goals of Asian countries.

Introduction

Asia is the largest and most populous continent in the world. It covers 30% of the earth's total land area and its 4.5 billion people (as of June 2019) constitute roughly 60% of the world's population (Wikipedia, n.d.). Asia has the largest continental economy by both GDP Nominal and purchasing power parity (PPP) in the world and is the fastest growing economic region (IMF, 2018). As of 2020, the largest economies in Asia in descending order are China, India, Japan, South Korea, and Indonesia based on GDP (ancki.com, 2020).

In this chapter, Asia is divided into six regions: East Asia (five countries and one area), Southeast Asia (11 countries), South Asia (nine countries), Former Soviet Union (SU) countries (five from Central Asia and three from West Asia), Middle East (15 countries in West Asia plus Egypt), and Russia. Note that Egypt is an African country. Russia is a country occupies both Europe and Asia. Since its most areas belong to North Asia, it is covered in this chapter.

Table 1 Key Statistics of Asia by Region

	Financial literacy score	Population	HDI	Life expectancy	Mean Schooling	GNI per capita
East Asia	38	1,678,089,619	0.8506	79.68	11.0	30,783
Southeast Asia	34	668,619,840	0.7142	73.04	7.6	22,546
South Asia	26	1,940,369,612	0.6454	71.91	6.4	6808
Former SU	29	91,430,537	0.7334	72.06	11.1	10,306
Mid East	35	262,545,167	0.7653	75.98	8.9	28,625
Russia	38	145,960,421	0.8240	72.40	12.0	25,036
Average	33	797,835,866	0.7555	74.18	9.5	20,684

Sources: Klapper et al. (2015) for financial literacy scores, Worldometer (2020) for populations, UNDP (2019) for other statistics. HDI=Human Development Index, GNI=gross national income. SU=Soviet Union.

Asian countries are diverse in terms of population, life expectancy, education, per capita income, and human development index (Table 1). The United Nations issues annual human development reports in which the Human Development Index (HDI) incorporates information about life expectancy, education,

and income, displaying characteristics of a country from health, human capital, and economic perspectives. Based on the latest Human Development Report (UNDP, 2019), East Asia has the highest HDI (.85), followed by Russia (.82) and the Middle East (.80), then by the former SU countries, Southeast Asia, and South Asia (.73, .71, and .65, respectively).

In the research literature, financial literacy can be defined narrowly or broadly. When financial literacy is narrowly defined, it means financial knowledge; and when it is broadly defined, it means consumer ability to manage their financial resources effectively (Lusardi & Mitchell, 2014). Financial literacy can mean both financial knowledge and application of knowledge (Huston, 2010). When both knowledge possession and application are considered, some researchers call it financial capability that is defined as an ability to apply appropriate financial knowledge and engage in desirable financial behaviors for achieving financial wellbeing (Xiao et al., 2014). Financial literacy is considered an important factor for consumer economic wellbeing (Xiao, 2015). Financial literacy is positively related to desirable consumer borrowing and saving behaviors (Lusardi & Mitchell, 2014). Populations with diverse socioeconomic backgrounds have different demands for financial literacy (Walstad et al., 2017; Xiao, 2016). Financial literacy education contributes to financial capability and wellbeing (Xiao & O'Neill, 2016; Xiao & Porto, 2017). Macro evidence shows that financial literacy may enhance financial inclusion (Grohmann et al., 2018). Financial literacy is an important topic in the field of consumer finance / household finance (Xiao & Tao, 2020). Based on the available information, this chapter describes the financial literacy level, national strategy for financial literacy education, financial literacy education programs, and financial literacy research in Asian countries.

Sources for the financial literacy levels of Asian countries used in this chapter are mainly from a global survey on financial literacy, sponsored by S&P Ratings Services and conducted among over 140 economies worldwide (Klapper et al., 2015). The survey measured four fundamental concepts for financial decision making: basic numeracy, interest compounding, inflation, and risk diversification. Among the economies surveyed, the financial literacy scores ranged from 17 to 71 out of 100. While Israel, a Middle East country, is among the countries with the highest levels of financial literacy, South Asia is home to countries with some of the lowest financial literacy scores, where only a quarter of adults—or fewer—are financially literate (Klapper & Lusardi, 2019).

Based on the information reported in the S&P Global Financial Literacy Survey, the average financial literacy scores of Asian regions are calculated and are presented in Table 1. People in East Asia and Russia have the same, highest score (38), the scores of people in the Middle East and Southeast Asia are in the mid-range (35 and 34, respectively), and people in former SU countries and South Asia had the lowest scores (29 and 24, respectively). Based on a research report issued by the Asian Development Bank Institute (ABDI), as economies develop, access to financial products and services increase, but households and small and medium-sized enterprises need to be able to use the products and services wisely and effectively, suggesting the need for financial literacy education in Asia (Yoshino et al., 2015).

A national strategy for financial literacy education is defined as a nationally coordinated approach to financial education that consists of an adapted framework recognizing the importance of financial education, involves the cooperation of different stakeholders, establishes a roadmap to achieve specific and predetermined objectives within a set period of time, and provides guidance to be applied by individual programs (INFE, 2012). According to an OECD/APEC report, 16 countries/areas in Asia have a national strategy (Messy & Monticone, 2016). An international survey about financial literacy, behavior, and attitude found that top performers in terms of financial knowledge include Hong Kong and South Korea with mean scores beyond or near, respectively, one full percentage point above the average for Asian-Pacific Economic Corporation (APEC) economies. Thailand, Indonesia, and Malaysia present the

lowest financial knowledge mean values. Financial behavior scores show less cross-economy variation, and China had one of the highest mean scores of financial behavior while Russia had one of the lowest scores, compared to other Asian-Pacific Economic Corporation (APEC) economies. Indonesia scored the highest in the financial attitude component but a very low financial knowledge value (OECD, 2019).

Asian countries are diverse in terms of socioeconomic and cultural factors. In the following sections, financial literacy statuses (level, national strategy, and education program) and research in six Asian regions are described separately. To locate financial literacy research papers in the context of Asia, Google Scholar was used to search relevant papers with key words: “financial literacy” and the name of a country or area. The search limited the publication year to 2016 or later. Efforts were taken to find relevant information from all Asian countries. Because of space limitations, only information from selected literatures about Asian countries is reported in this chapter. A longer review with more details for each of the Asian countries can be found in Xiao (2020).

Financial Literacy in Asia by Regions

East Asia

East Asia includes five countries and three areas, which are China, Japan, North Korea, South Korea, Mongolia, Hong Kong (China), Macau (China), and Taiwan. After search on Google Scholar, no information is found about financial literacy in Macau and North Korea. Since only six economies have relevant information on financial literacy and they are diverse in terms of socioeconomic institutions, these economies are described one by one.

China

China is the second largest economy with the largest population in the world. China is an emerging economy transitioning from centrally planned economy to a mix of both planned and market economy. Based on HDI, China is ranked the 85th, a high human development country. The financial literacy score in China is 28, lower than the average of 38 in East Asia. Based on the second national survey of financial literacy, behavior, attitude, and skill in China conducted in 2019, the overall performance of Chinese consumers was improved compared to the first one conducted in 2017 (PBC, 2019). With the onset of the global financial crisis, China started to consider designing a national strategy for financial education. The national strategy is being developed by the People’s Bank of China, with the support of the China Banking Regulatory Commission, the China Securities Regulatory Commission and the China Insurance Regulatory Commission (OECD, 2019).

The national curriculum in China is structured on three levels: national, regional and school-based. Some financial and economic topics are incorporated in the national curriculum to some extent, and schools may autonomously develop and teach additional ones. Since 2001, schools in some municipalities, such as Beijing and Shanghai, and provinces, such as Guangdong, Zhejiang and Jiangsu, introduced specific financial education curricula. For instance, 116 primary and secondary schools have established a regional curriculum called Finance and Money Management in the Pudong New Area, in Shanghai (OECD, 2019). In Shanghai-China, some financial education topics have been integrated into the existing national curriculum since the 1970s, while schools have some autonomy in teaching financial education with respect to the national curriculum. In the Pudong New Area of Shanghai-China, regular training on finance has been delivered since 2009 in primary and lower secondary schools (OECD, 2014).

In the context of China, financial knowledge is shown to be associated with portfolio choices and financial wellbeing (Chu et al., 2017; Jiang et al., 2020; Li et al., 2020). Financial knowledge is also associated with risky asset market participation (Liao et al. 2017), financial market participation (Zhou et al., 2019), retirement preparation (Niu et al., 2020), loan decisions (Lyons et al., 2019), credit accessibility (Xu et al., 2019), and household consumption (Zhang et al., 2020). Studies also examine the association between financial education and financial literacy (Zhang & Xiong, 2019), financial statement literacy of investors (Kishan, & Alfian, 2018), the role of financial literacy in social work (Jin & Yuan, 2019), and the use of financial software on financial literacy (Bi et al., 2020).

Hong Kong

Hong Kong is a special administrative district of China. Hong Kong is considered the window of China in terms of financial markets and economic development. As a special territory, Hong Kong is ranked the 4th in HDI, a very high human development economy. The financial literacy score of Hong Kong is 43, higher than the average in East Asia. In Hong Kong, a change in the legislation in 2012 broadened the statutory investor education objective of the Securities and Futures Commission to cover all kinds of financial products and services. This reform allowed the Commission to delegate its statutory education function to its subsidiary, the Investor Education Centre, which was launched in November 2012 and is currently responsible for financial education in Hong Kong. In 2015, the (then) Investor Education Centre launched the “Hong Kong Strategy for Financial Literacy” (OECD, 2019).

In Hong Kong, financial education topics are included to some extent through a cross-curricular approach in primary and secondary education. In primary education it is integrated in Mathematics and General Studies; in lower secondary education, it is integrated in Mathematics, Life and Society, and Home Economics; in upper secondary education it is integrated in Mathematics, Liberal Studies, Business, Economics, Accounting and Financial Studies. The “Teaching your Kids about Money Parent-Child Workshops” program, targets junior primary school children and their parents, and consists of two workshops (OECD, 2019).

Studies are conducted to understand financial literacy education needs (Au-Yeung & Chan, 2020) and gender difference among workers in Hong Kong (Yu et al., 2015). Research is also conducted to help better understand financial literacy levels among secondary school students (Zhu et al., 2019, 2020). Researchers also examine school banding effects on financial literacy acquisition (Ho, 2020) and conceptually discuss financial literacy education based on variation theory of learning in the Hong Kong context (Pang, 2016).

Japan

Japan is the only long term developed economy in Asia with many advantages and disadvantages of developed countries. The major challenges faced by Japan includes long term economic stagnation and aging in society. Japan is ranked the 19th in HDI, a very high human development country. Japan’s financial literacy score is 43, higher than the average in East Asia. In Japan, both the Financial Service Agency (JFSA) and the Central Council for Financial Services Information (CCFSI), whose Secretariat is located at the Bank of Japan, are responsible for financial education. In 2007, the Central Council developed contents of financial education to be learned by each age group in schools within the “Financial Education Program.” The 2007 document was revised in 2014/2015 with the release of the Financial Literacy Map, a financial literacy core competencies table for all age groups, from elementary school pupils to the senior citizens (OECD, 2019).

In Japan, elements of savings promotion have been present in schools since the 1950s. More recently, financial education has been integrated in the school curriculum. According to the national curriculum published by the Ministry of Education in 2008/2009, financial education contents are taught through a cross-curricular approach in subjects such as Social Studies, Home Economics, and Moral Education in primary and secondary schools. The Guidelines associated to the new national curriculum were implemented in elementary, junior and high schools in 2011, 2012 and 2013, respectively. Today, financial education in Japanese schools is available at all education levels, from early childhood through to tertiary education (OECD, 2019).

Comprehensive research on determinants of financial literacy in Japan is conducted (Kadoya & Khan, 2019; Yoshino et al., 2017). Using data from the Financial Literacy Survey 2016 by the Central Council for Financial Services Information of Japan, researchers find that males are more financially knowledgeable than females, but females are more positive than males regarding financial behavior and financial attitude. The results also suggest that middle-aged people in Japan are more financially knowledgeable, but younger and older people are more positive with regard to financial behavior and attitude (Kadoya & Khan, 2020). Financial education in general (Yoshino et al., 2016) and in secondary schools are examined (Yamori et al. 2019). Potential effects of financial literacy on gambling behavior (Watanapongvanich et al., 2020) and cash demands among Japanese consumers are studied (Fujiki, 2020). Using Japanese survey data, researchers find surprisingly people with high financial literacy tend to take too many risks, overborrow, and hold naive financial attitudes (Kawamura et al., 2019).

Mongolia

Mongolia is an inland country located between Russia and China, a developing country. Mongolia's HDI is ranked the 92th, a high human development country. Based on the financial literacy global survey, Mongolia's score is 41, higher than the average in East Asia.

A study on household stress tests suggest that the household sector of Mongolia is vulnerable to shocks associated with interest rates, cost of basic consumption, asset prices and unemployment (Doojav & Bayarjargal, 2018). Consumers in Mongolia need financial protection (Giannetto et al., 2019). Research is also conducted on the association between financial literacy and pension planning among Mongolian herders (Gombodorj et al., 2019).

South Korea

South Korea is one of the four dragons in Asia. Its HDI is ranked the 21th, a very high human development country. Its financial literacy score is 33, lower than the average in East Asia.

South Korea launched the Financial Education Activation Plan in September 2013. Financial education activities are coordinated by the Financial Education Council (FEC), a body led by the Financial Services Commission that coordinates basic policy directions, examines how financial education is provided by each institution and continues to upgrade the Financial Education Activation Plan (OECD, 2019).

In South Korea, the 2009 revised national curriculum gives increasing importance to financial education. Financial education has been introduced in subjects such as Economics and Social Studies in primary and lower secondary education. At the upper secondary and tertiary levels, financial education elements are offered as part of other courses such as Economics and Practical Finance, and at an optional basis.

Economics textbooks have also been revised by adding a separate chapter on financial education at the secondary school level (OECD, 2019).

Studies are conducted on financial literacy of North Korea defectors (Kim & Kang, 2018) and refugees living in South Korea (Kim et al., 2017). Research is conducted on potential effects of financial literacy on stock market participation (Charoensook & Woong, 2017), the association between financial education and sound financial behavior (Son & Park, 2019), and how to learn financial literacy in a game setting in the Korean context (Kang et al., 2018).

Taiwan

Taiwan is an independent economy located in the eastern side of the Taiwan strait. Taiwan is considered a newly developed economy, one of small dragons in Asia (the other three are Hong Kong, Singapore, and South Korea). Taiwan's financial literacy score is 37, one point lower than the average in East Asia. Taiwan has had a strategic approach to financial education since 2006, through the Financial Literacy Program. Whilst the Financial Supervisory Commission coordinates the overall strategy, the Academy of Banking and Finance, the Securities and Futures Institute and the Insurance Institute, among other institutions, are responsible for its effective implementation. The program is at its 4th phase running from 2015 to 2017. Since the outset of the Financial Literacy Program, the associated costs have been shared by all participating agencies (OECD, 2019).

Financial education was introduced in the school curriculum of Taiwan in 2011. Financial education topics are taught as part of the Social and Integrated Areas subject in primary and lower secondary schools. Financial education is also included in the Civil Studies course at the upper secondary and post-secondary non-tertiary education levels. In addition, the Insurance Bureau of the Financial Supervisory Commission holds basic financial education training camps for teachers every year. The camps are not mandatory and provide teachers with the necessary tools to teach financial education including financial knowledge, teaching materials, and lesson plans (OECD, 2019).

Research is conducted to identify critical successful factors for implementing financial education in elementary schools (Tseng & Kou, 2019) and develop effective educational games simulating stock markets to teach financial literacy for Taiwanese students (Liu et al., 2020). Studies are also conducted to examine potential effects of financial literacy on life insurance demand (Lin et al., 2017) and financial disputes in Taiwan (Shen et al., 2016).

Southeast Asia

There are 11 countries in Southeast Asia. Among them, six countries have been active in consumer financial literacy education and others are not. In the following, situations of those with active financial education activities are described one by one in separate subsections and the last subsection includes countries less active in financial literacy education.

Brunei

Brunei is a small country in Southeast Asia with a population of 437,479. Brunei's HDI is ranked the 43th, a very high human development country.

A National Financial Literacy Council (NFLC) was established in Brunei in 2017 in order to coordinate and implement the national strategy for financial education. The objective of the NFLC is to ensure Bruneians are able to achieve the highest financial wellbeing, given their resources and burdens, through the access to well-suited financial products, independent information and advice (OECD, 2019). Financial literacy resources are available for schools at all education levels in Brunei Darussalam, with financial education being originally introduced in the upper secondary level since the 1980's, and in the primary and lower secondary education levels in 2009. The Ministry of Education is the main national/regional institution in charge of introducing and delivering financial education in most Bruneian schools, with a few financial authorities (e.g. the Monetary Authority, the Ministry of Finance, etc.) also taking up responsibility for key activities at the tertiary level (OECD, 2019).

Research shows that financial literacy is related to financial behavior among college students in Brunei (Arofah, 2018). Another study among government employees finds that the younger group is more financially literate than the older group among contributors of defined contribution retirement plans (Pg Hj Md Salleh & Baha, 2020).

Indonesia

Indonesia is a country with the third largest population in Asia. Its HDI is ranked the 111st, a high human development country. Its financial literacy score is 32, 2 points lower than the average in Southeast Asia.

In Indonesia, both Bank Indonesia (BI) and Financial Services Authority (Its Indonesian name is OJK) are responsible for financial education. The first National Strategy on Financial Literacy was launched by the President in November 2013 and was coordinated by the OJK, which has a mandate by law to conduct financial education as part of its financial consumer protection tasks (OECD, 2019).

The Financial Services Authority (OJK) and the Bank of Indonesia have worked closely with the Ministry of Education and the financial industry to successfully incorporate financial education in the new national education curriculum. Financial education was first introduced in Indonesian high schools in July 2014, following a series of pilots in 156 schools across 7 provinces. Now, financial education is integrated in the curricula at all education levels, except for the early childhood one, and taught as part of subjects such as Economics and Social Sciences (OECD, 2019). A financial literacy textbook for senior high school students was published in 2014 and integrated into the curriculum for economics classes by 2016. Simplified versions of this textbook were provided to elementary and junior high school students in 2014 and 2015, respectively (OECD, 2020).

The overview of financial literacy in Indonesia is provided by a book chapter (Amidjono et al., 2016). Financial literacy is also evaluated as a public policy outcome in Indonesia (Harun et al., 2020). Financial literacy research has been conducted in special populations such as young children (Fauziha & Sarib, 2019; Sari & Fatimah, 2017), the poor (Lopus et al., 2019), college students (Rafinda & Gal, 2020), small and medium sized enterprise owners (Purwidiarti & Tubastuvi, 2019), migrant workers (Brahmana & Brahmana, 2017), academicians (Danila et al., 2019), and university employees (Yap et al., 2018).

Malaysia

Malaysia is a comparatively developed country in Southeast Asia. Its HDI is ranked the 61st, a very high human development country. Its financial literacy score is 36, 2 points higher than the area average.

In Malaysia, the Central Bank (Bank Negara Malaysia, BNM) initiated the Consumer Education Program (CEP) in 2003 as part of the Financial Sector Master Plan 2000-2010. In 2010, the Economic Transformation Plan 2010-2020 (ETP) recognized the importance of having financially competent consumers who could make informed and conscious financial choices, and identified BNM to lead the creation of a coordinated national financial literacy program based on public-private partnerships. Moreover, the new Financial Sector Blueprint (2011-2020) placed great emphasis on financial literacy as a key element of financial inclusion and recommended the promotion of financial education for adults and young people. In November 2016, Malaysia established a Financial Education Network (FEN) for a more holistic and coordinated governing arrangement to accelerate the overall financial literacy of the population. The FEN is currently formulating a 5-year National Strategy for Financial Literacy for Malaysia (2018-2022) (OECD, 2019).

Bank Negara Malaysia (BNM) collaborates with the Ministry of Education to introduce financial education elements in the school curriculum, especially since 2011, when the Ministry of Education started developing a new curriculum for Malaysian schools. Since 2014, financial education has been integrated progressively in the new primary school curriculum within core subjects such as Mathematics, English Language, Malay Language, and in non-core subjects such as Moral Education. Starting from 2017, financial education has also been incorporated in selected core subjects at the lower and upper secondary school levels. By 2021, the process of embedding financial education at all levels from early childhood to tertiary education will be completed (OECD, 2019).

Research on financial literacy in the Malaysian context is rich. A casual search in Google Scholar with key words, “financial literacy” and “Malaysia,” resulted in more than 50 relevant studies. Here are only some of these studies reviewed. Several studies describe the financial literacy levels of Malaysians (Kimiyaqhalam & Yap, 2017; Mokhtar et al., 2018; Murugiah, 2016). Some studies examine financial literacy levels among college students (Albeerdy & Gharlegghi, 2015; Rahim et al., 2016; Yew et al., 2017), youths (Idris et al., 2017), young adults (Sabri & Aw, 2019), and small and medium sized enterprise owners (Eniola & Entebang, 2016). A study compares financial literacy and investment decisions between consumers in Malaysia and UK (Janor et al., 2017).

Philippines

Philippines has its HDI ranked the 106th, a high human development country. Its financial literacy score is 25, much lower than the area average.

In the Philippines, the Economic and Financial Learning Program (EFLP) is the flagship program of the Central Bank (BSP) for financial education. In its response to the OECD/INFE survey for APEC economies, the Philippines noted that the BSP is initiating the drafting of a national strategy for financial education (2018-2028), in line with its objective of promoting financial inclusion and financial stability (OECD, 2019).

In the Philippines, the Central Bank (BSP) collaborated with the Department of Education in the development and integration of financial literacy lessons in the primary school curriculum. Since school year 2008-2009, this involved the distribution of three teaching guides to public elementary schools nationwide, with the aim of incorporating lessons on money management, saving, and basic economics related to savings. Since 2015, the second week of November of every year has been declared "Economic and Financial Literacy Week." The National Economic Development Authority (NEDA) is

designated as the lead agency to ensure meaningful observance of the Economic and Financial Literacy Week (OECD, 2019).

Research on financial literacy is conducted among special populations, such as transitional households (at least one household member departed for abroad in the last three years) (Abarcar et al., 2017), school teachers (Ferrer, 2018; Montalbo et al., 2017), micro-business owners (Gonzalvo & Avila, 2019; Guliman & Uy, 2019), low income communities (Once et al., 2019; Tatel-Suatengco & Florida, 2020), returning overseas immigrants (Lacsina & Opiniano, 2017), and trafficked women (Tsai, 2018).

Singapore

Singapore is a developed economy in Asia, one of the four small dragons. Its HDI is ranked the 9th, a very high human development country. Its financial literacy score is 59, much higher than the area average.

MoneySENSE is the national financial education program in Singapore, launched in 2003. MoneySENSE is spearheaded by the Financial Education Steering Committee (FESC), which is chaired by the Monetary Authority of Singapore (MAS) and comprises representatives from several public sector agencies and government ministries. In 2014, the FESC developed a new MoneySENSE roadmap to guide financial education efforts for the upcoming years (2014-2019) (OECD, 2019).

Financial education has been taught in Singapore since the 1960s, with the Ministry of Education being responsible for the overall national curriculum. The Ministry of Education recognizes that financial literacy education should start from an early age, by fostering the habit of saving and inculcating values of prudence in students. In 2014, the subject Home Economics was renamed as Food and Consumer Education and includes messages on managing financial resources and understanding consumer rights and responsibilities. Some financial education content is also infused in upper secondary schooling, particularly as part of subjects such as Principles of Accounts and Elements of Business Studies. At the post-secondary nontertiary education level, financial literacy messages are weaved into the A Level Economics syllabus. The Ministry also provides pre and in-service financial education training for teachers of relevant subjects (OECD, 2019).

Research has been conducted on financial literacy and retirement planning topics in Singapore such as retirement preparedness (Barua et al., 2018; Koh & Mitchell, 2019), portfolios complexity (Koh et al., 2018), and suboptimal decision making (Fong et al., 2019). Studies also explore how to teach financial literacy in schools (Koh, 2016; Siu & Koh, 2016; Yeh, 2016) and financial literacy of secondary school students (Keng & Fraser, 2014). Research is also conducted on financial education for female foreign domestic workers in Singapore (Barua et al., 2019).

Thailand

Thailand is a tourist country viewed by many consumers in other countries. Its HDI is ranked the 77th, a high human development country. Its financial literacy score is 27, lower than the area average.

Various institutions conduct financial education activities in Thailand, including the Ministry of Finance, the Bank of Thailand and the Securities and Exchange Commission. These authorities also participate in the Committee on Financial Education, chaired by the Ministry of Finance. The Committee is designing a national strategy for financial literacy, drawing on evidence collected through financial literacy surveys carried out by the Ministry of Finance and the Bank of Thailand (OECD, 2019).

In Thailand, some financial education topics are included in primary and secondary education within the compulsory core subject Social Studies, Religion and Culture, in the sub-strand Economics. Economics mostly refers to managing resources for production and consumption, and efficient and cost-effective utilization of limited resources available, but it also includes some personal finance topics. At the tertiary education level, financial education elements are covered as part of the Finance courses (OECD, 2019).

Research has been conducted on the potential effects of financial literacy on quality of life (Amonhaemanon & Isaramalai, 2020), debt behavior (Chotewattanakul et al., 2019), and financial behavior in Thailand (Moenjak et al., 2020). Studies are also conducted to examine financial literacy of special populations such as college students (Chaiphath, 2019), the middle class (Grohmann, 2018; Grohmann et al., 2016), and generation Y (Gruenwald & Chatterji, 2016). Researchers also examine how to use gamified activities to enhance financial literacy and financial behavior in Thailand (Inchamnan et al., 2019).

Other Countries in Southeast Asia

Other countries in Southeast Asia include Cambodia, Laos, Myanmar, Timor-Leste, and Vietnam. In terms of HDI, these countries belong to the category of medium human development, Cambodia (ranked the 146th), Laos (140th), Myanmar (145th), Timor-Leste (131th), and Vietnam (118th). Only three Asian countries have financial literacy global survey scores, in which Myanmar is 52, above the area average, and Cambodia and Vietnam are 18 and 24, respectively, lower than the area average.

Research on financial literacy in Myanmar and Timor-Leste is not found. One study examines financial literacy in Cambodia and Vietnam (Morgan & Trinh, 2019). Studies are conducted to examine financial literacy (Morgan & Trinh, 2019), and its associations with saving behavior (Morgan & Long, 2020) and fintech in Laos (Morgan & Trinh, 2019).

In Vietnam, research is conducted on potential effects of financial literacy on retirement planning (Do, 2017; Nguyen et al., 2017a) and personal savings (Nguyen et al., 2017b; Tuong & Doan, 2020). Studies also examine financial literacy of investors (Dang et al., 2017) and adults (Tue, 2017).

South Asia

South Asia has nine countries that are diverse in population sizes and land sizes. In the following, we use two sections to describe financial literacy situations in these countries, one is about India, and the other is about other countries in South Asia.

India

India is a country with the second largest population in the world. Its HDI is ranked the 129th, a medium human development country. Its financial literacy score is 24, two points lower than the area average of 26 in South Asia.

In India, the national coordination on financial literacy is through the Financial Stability and Development Council (FSDC), which is chaired by the Union Finance Minister with heads of all financial sector regulatory authorities as members. FSDC focuses on spread of financial inclusion and financial literacy. The Reserve Bank, besides its role as a member of the FSDC, has also taken numerous initiatives

for spreading financial inclusion and financial literacy, both in terms of creating an enabling policy environment and providing institutional support. Being supported by the FSDC, India has been prepared the draft for National Strategy for Financial Education (NSFE). The Reserve Bank of India has undertaken a project titled "Project Financial Literacy." Securities Exchange Board of India (SEBI) is very active regulatory body in terms of financial literacy. Recently EBI is running a campaign called securities market awareness campaign (SMAC). Insurance Regulatory and Development Authority has taken various initiatives in the area of financial literacy. The Pension Fund Regulatory and Development Authority, India's youngest regulator, has been engaged in spreading social security messages to the public. Other than the Reserve bank and other commercial banks, various NGOs in the country are also entrusted with the task of spreading financial literacy in the country. Prominent among them is the NGO named "Sanchayan" which is dedicated exclusively in spreading financial literacy and awareness among the youth and adults who come from low income background. Another NGO named Citi India (A branch of the Citi group international) has been on the arena of spreading financial awareness among Indian masses (Arya, 2018).

Many studies on financial literacy in India are conducted. A casual search in Google Scholar with keywords, financial literacy and India, resulted in over 10 pages of results. Here is just a brief summary of some of these studies. Research has been conducted on financial literacy and financial planning (Agarwal et al., 2015), behavior bias (Baker et al., 2019), information flows (Bönte & Filipiak, 2012), woman empowerment (Desai & Mariyam, 2018), financial service use (Jana et al., 2019), numeracy (Jayaraman et al., 2018), financial behavior (Rai et al., 2019), stock market participation (Sivaramakrishnan et al., 2017), its perception and reality gap (Kiliyanni & Sivaraman, 2016), and its determinants (Choudhary & Kamboj, 2017). Studies are also conducted on financial literacy of young workers (Agarwalla et al., 2015), women (Roy & Jain, 2018), woman workers (Arora, 2016), and youth (Bharucha, 2019). Literature reviews are also conducted on financial literacy in India (Naidu, 2017) or of Indian women (Baluja, 2016).

Other Countries in South Asia

The other eight countries in South Asia are diverse in HDIs and financial literacy scores. In terms of HDI, three countries are high human development countries (Iran, Maldives, and Sri Lanka); four are medium human development countries (Bangladesh, Bhutan, Nepal, Pakistan), and one (Afghanistan) is a low human development country. Three countries have financial literacy scores higher than or equal to the area average that are Bhutan (52), Sri Lanka (35), and Pakistan (26). Other countries have financial literacy scores lower than the area average, Afghanistan (14), Bangladesh (16), Nepal (18), and Iran (20). Maldives' is not surveyed for financial literacy.

Bangladesh has no national policy on financial literacy, but Bangladesh Bank has a policy statement on financial literacy (www.bb.org.bd/finedu), which says it strives to ensure that people have access to all financial products and information on banks and nonbank financial institutions. As a part of Bangladesh Bank's programs for increasing financial inclusion and improving financial literacy, school banking has been introduced; targeted credit programs have been formulated for the poor and farm households; the Taka 10 bank account scheme has been implemented; and there has been dissemination of sensitive financial information via the print and electronic media (Khalily, 2016). Financial literacy and its application in stock markets in Bangladesh is discussed conceptually (Das, 2019). Research is conducted on financial literacy of women (Thompson et al., 2018). Studies explore potential effects of financial literacy on small firm growth (Hossain, 2020), financial inclusion (Sarker et al., 2016), and car rental sales in Bangladesh (Marhayanie & Muda, 2017).

In Pakistan, the national strategy on financial literacy is established (Mahmood et al., 2017). The level of financial literacy is assessed in local samples (Ghaffar & Sharif, 2016; Hasnain et al., 2017). Research examines potential effects of financial literacy on investment decisions (Awais et al., 2016; Hayat & Anwar, 2016; Rasool & Ullah, 2020) and the adoption of Islamic banking services (Zaman et al., 2017). A study examines parental financial socialization on young consumers (Khan & Khurshid, 2018).

In Sri Lanka, financial literacy programs are designed for rural children (Halloluwa et al., 2017) and delivered by microfinance institutions (Premarathne & Abeysekera, 2020). Research examines potential effects of financial literacy on SME performance (Kulathunga et al., 2020; Menike, 2018; Ye & Kulathunga, 2019), financial behaviors of academics (Rajapakse, 2018), and women's empowerment (Kumari, 2019). A financial literacy index for developing countries is conceptually discussed (Senevirathne et al., 2017).

In Nepal, research is conducted to examine the potential effect of financial literacy on appliance replacement attitudes (Filippini et al., 2019), investment patterns (Dangol & Shakya, 2017), and financial behavior (Chaulagain, 2018). Studies examine financial literacy of marginalized people (Chaulagain & Devkota, 2018) and small borrowers (Chaulagain, 2017).

In Iran, studies describe financial literacy of investors (Cude et al., 2019), explore differences between informed and uninformed investors (Jalilvand et al., 2018), and examine potential effects of financial literacy on quality of life of cancer patients (Sharif et al., 2020).

No research on financial literacy is found in three South Asian countries, Afghanistan, Bhutan, and Maldives.

Former Soviet Union (SU) Countries (Central Asia and partial West Asia)

Former Soviet Union (SU) countries locate in Central and West Asia where five countries (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) are in Central Asia and three countries (Armenia, Azerbaijan, and Georgia) in West Asia. These countries are considered transitional economies, moving from the centrally planned economy to market economy. In terms of HDI, one is a very high human development country (Kazakhstan), five are high human development countries (Armenia, Azerbaijan, Georgia, Turkmenistan, and Uzbekistan), and two are medium human development countries (Kyrgyzstan and Tajikistan). The average score of financial literacy in these former SU countries is 29, one point lower than the Asia average. Four of these countries have higher than average financial literacy scores (Turkmenistan 41, Kazakhstan 40, Azerbaijan 36, Georgia 30), three have the lower than the area average scores (Uzbekistan 21, Armenia 18, Tajikistan 17), and the score for Kyrgyzstan is not available.

In general, the progress of financial inclusion and financial development in the economies in Central Asia and the South Caucasus (CASC) has lagged that of other Asian economies, partly due to the disruptions and instabilities following the breakup of the Soviet Union in 1991. Researchers have surveyed the experiences of the CASC economies to assess factors affecting the ability of low-income households and small and medium-sized firms to access financial services, including financial literacy, financial education programs, and financial regulatory frameworks, and to identify policies that can improve their financial access while maintaining financial stability (Morgan et al., 2018).

Armenia has implemented its National Strategy for Financial Education (NSFE) since 2014; this is led by the Central Bank of Armenia and is formally adopted by the government. The Central Bank of Azerbaijan has been leading the National Financial Literacy Strategy (NFLS) since 2016. Georgia implemented its National Strategy for Financial Education in 2016, with the goal of improving consumer wellbeing and consumer protection. In Kazakhstan, the 2014 Concept for the Financial Sector Development of the Republic of Kazakhstan until 2030 (2030 Concept) stated that work on increasing the financial education level should be continuous and include various aspects, but there has been no implementation yet. The Kyrgyz Republic adopted a program to improve financial literacy for 2016–2020, including the first centralized initiatives to provide financial education in the school curriculum. No national strategies for promoting financial literacy have been implemented in Tajikistan or Uzbekistan (Morgan et al., 2018).

Research on financial literacy in former SU countries is limited. Much information is based on working papers from the Asian Development Bank Institute (ADBI). No report is found for Turkmenistan.

In Armenia, financial education is organized around the National Strategy for Financial Education (NSFE) and the National Steering Committee, which elaborated and has been implementing the NSFE. The Steering Committee has been led by the CBA and the Ministry of Education and Science (for the part associated with schools). NSFE was formally adopted by the government in 2014. Upon the agreement with the Ministry of Education and Science of Armenia, financial education will be integrated into school curricula starting from 2018. The Financial Education in Rural Areas Project is a part of the NSFE. The special program for regions of Armenia was launched in 2016 and included two-day workshops on personal finance management. The Financial Education in Schools Project was initiated in 2014. In November 2016, financial education topics were integrated into four subjects for all primary, secondary and high schools: Mathematics, Me and the World, Algebra, Social Science. The pilot of the project was launched in September 2017 and the results will be summarized in June 2018. The nationwide integration of the FE components into school curricula will start from September 2018 in 350 schools and within 3 years will cover all schools (Nurbekyan & Hovanesian, 2018). Research is conducted to evaluate the impact of financial literacy workshops in rural areas in Armenia (Pokrikyan, 2016).

In Azerbaijan, the Financial Literacy Council was established on March 7, 2017, as an initiative of the Azerbaijan Banks Association (ABA). Aimed at general discussion and coordination of planned activities related to financial literacy, it is envisaged to develop the Financial Literacy Council under the ABA, including top managers (members of boards of directors) among its members. The Center for Research and Development of the Central Bank of Azerbaijan Republic (CBAR) held training for commercial banks jointly with the PwC (PricewaterhouseCoopers) Academy. Azerbaijan's population was targeted to promote financial inclusion through financial education. Under the support European Bank for Reconstruction and Development, a financial literacy training program was extended to 160,000 people in Azerbaijan, Armenia, the Kyrgyz Republic, Georgia, Moldova, and Tajikistan between 2011 and 2013. The EU-funded project called "Building female professionals and promoting women entrepreneurship development in rural regions of Azerbaijan" was managed together with the Azerbaijan Micro-finance Association (AMFA). Additionally, the CBAR developed a national financial literacy strategy (NFLS) and a financial education website (Ibadoghlu, 2018).

In Georgia, the National Bank of Georgia (NBG) established a Steering Committee comprised of different types of stakeholders including the financial institutions, universities, Civil Society, and other government entities for the implementation of the strategy. The Committee's goal is to evaluate existing and future programs, raise initiatives, and provide advisory, financial, and technical assistance. The

guideline for activities under the Strategy for 2017–2019 has been drafted. It is planned to integrate financial literacy topics in the national curriculum in schools (in math classes and in civic education classes). The pilot of the program, “school-bank,” is already in action and NBG is delivering training for pupils, as well as trainings for teachers in 11 public schools (Babych et al., 2018). In 2018, the Ministry of Education, Science, Culture and Sport of Georgia, in collaboration with the National Bank of Georgia, approved a new national curriculum for students in grades 7, 8 and 9. This curriculum makes financial and economic education a part of civic education (in particular, in the subject “Citizenship”). Certain elements of financial literacy were also introduced in mathematics classes. This curriculum was first introduced for grade 7 students in 2019. An informal pilot program was also conducted in 2017 for 232 students in 11 schools (OECD, 2020).

In Kazakhstan, the 2014 “Concept for the Financial Sector Development of the Republic of Kazakhstan until 2030” (2030 Concept) stated that work on increasing the level of financial education should be continuous and include various aspects. Over the period 2007–2011, the State Program for Enhancing the Investment Culture (2007–2011 Program) was implemented. It had a budget of \$30 million over 5 years and was expressly focused on increasing the knowledge of the population concerning investment opportunities in Kazakhstan with a view to attracting private funds to be used for economic growth. The newly adopted “Program to improve the financial literacy of the population for 2016–2018” (2016–2018 Program) was approved by the Board of the NBK. The new program has the following goals: to develop skills in financial planning, to form active economic behavior among citizens, corresponding to their financial capabilities, to reduce overstated expectations for state financial support, to increase the confidence of consumers of financial products and services in the financial sector, and to increase in the overall economic activity of the population (Kapparov, 2018). Research examines the association between financial literacy and saving behavior in rural populations in Kazakhstan (Gaisina, 2018; Gaisina & Kaidarova, 2017).

In Kyrgyzstan, the first attempt to institutionalize the problem of financial literacy was in the Microfinance Development Strategy for 2011–2015. The strategy emphasized the need for national efforts to improve financial literacy and emphasized the need for inter-ministerial coordination. In 2016, the Program to Improve Financial Literacy in the Kyrgyz Republic for 2016–2020 was adopted for the first time. In 2015, one of the former microfinance companies published the “Basics of Financial Literacy” book. The National Bank launched the specialist financial literacy website, called “Monetary ABC,” and carries out various educational activities on financial literacy. The Program to Improve Financial Literacy aimed at working at three pillars: financial literacy of school children and youth, financial literacy of adults, and ensuring equal and full access to financial information and services for all citizens. The program will employ an inter-sectoral approach and will involve multiple governmental bodies, private sector, and donors (Hasanova, 2018).

In Tajikistan, the National Development Strategy of Tajikistan – 2030 places emphasis on improvement in the protection of the rights of consumers of financial services. The National Bank of Tajikistan, in collaboration with international experts, developed the Strategic Priorities in the Development of a Mechanism on the Protection of the Rights of Consumers of Financial Services for 2017–2019. In February of 2015, the International Bank Corporation (IFC) launched a financial infrastructure development program in Tajikistan involving several credit organizations. The program includes educational materials on household budgets and personal finance management, smart borrowing rules, preventing over-indebtedness, saving strategies, managing remittances, and the benefits of credit

information reporting. The program has been delivered through various delivery channels, including training for the adult population, in-depth consultations for borrowers, and broadcasting of educational video clips and radio programs (Mogilevskii & Asadov, 2018).

In Uzbekistan, jointly with several ministries, a national strategy was developed, which was pending ratification, to raise the level of basic financial education of the Uzbek population. In May 2017, jointly with the International Finance Corporation (part of World Bank Group), the Association of Banks of Uzbekistan, and the Chamber of Commerce of Uzbekistan, it had started to implement a new program on financial literacy. The program consists of two parts: the first targets owners of small and medium-sized businesses, and the second aims to educate the general population. The German Agency GIZ project, within which the Sparkassen Finanzgruppe currently also focuses on financial literacy. For instance, the program operates a train the trainer program with a state financial institute. Additionally, the National Association of Microfinance Institutions of Uzbekistan, in partnership with the Microfinance Centre, has implemented a finance literacy program by directly training low-income people and preparing trainers on financial literacy (Ahunov, 2018). Research is conducted to examine factors associated with financial literacy among young students in a city of Uzbekistan (Isomidinova et al., 2017).

Middle East (partial West Asia plus Egypt)

Middle East consists of 16 countries, in which 15 countries are in West Asia and one (Egypt) is in Africa. In terms of HDI, nine are very high human development countries (Bahrain, Cyprus, Israel, Kuwait, Oman, Qatar, Saudi Arabia, Turkey, and United Arab Emirates), three are high human development countries (Lebanon, Jordan, and Egypt), two are medium human development countries (Iraq and Palestine), and two are low human development countries (Yemen and Syria). Among these countries, six (Cyprus, United Arab Emirates, Bahrain, Kuwait, Lebanon, and Israel) have financial literacy scores higher than the area average of 35, six (Yemen, Turkey, Jordan, Egypt, Iraq, and Saudi Arabia) have financial literacy scores lower than the area average, and four (Oman, Qatar, Palestine, and Syria) do not have the scores available.

Using data from the 2014 World Bank Global Findex and supplement it with indicators of financial literacy and other macroeconomic characteristics, researchers examine factors that shape financial inclusion in the Middle East and North Africa (MENA) region. The results show that economically vulnerable populations are significantly less likely to be financially included both in terms of savings and borrowing. Further, households living in MENA countries with higher levels of financial literacy are more likely to be engaged in positive savings behaviors and less likely to be borrowing, especially from informal sources (Lyons & Kass-Hanna, 2019). Researchers examine financial literacy of a group of developing countries including two Middle East countries (Jordan and Turkey) and find that women, younger adults and individuals who cannot read or write in the official language of their country of residence have lower financial literacy scores. Financial literacy increases with education, not only the years, but also the quality of education (Karakurum-Ozdemir et al., 2019).

After searching the Google Scholar for research papers on financial literacy in these countries, no information is found in nine countries that are Iraq, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Palestine, Syria, and Yemen. Limited research papers on financial literacy are found in other countries in Middle East. In the following, these papers are described in two subsections: very high human development countries and other countries in Middle East.

Very High Human Development Countries in Middle East

In Bahrain, a sample of investors are examined with financial literacy. Results show that the financial literacy level of the Bahraini investors is low and participants in low financial literacy group mainly prefer to invest in traditional and safe financial products and do not invest much in complex financial products (Abdeldayem, 2016).

In Cyprus, financial literacy is yet too low, whereby only 37.33% of the surveyed adults have a good financial knowledge proficiency level. The results indicate that financially literate consumers show a strong preference for frequent use of i-banking (Andreou & Anyfantaki, 2019). Research among college students show that financial knowledge may influence students' understanding of managing their credit card debt and students' ability to deter themselves from fraudulent investments (Andreou & Philip, 2018).

In Israel, teaching financial education in schools started in 2010 with a gradually expanding pilot program for 10th-graders (15- and 16-year-old students). The Ministry of Education established a steering committee to consider changing and expanding the existing curriculum (OECD, 2014). The Financial Education Department was established as a depoliticizing tool in a context of a popular protest that re-politicized economic policy. Its main concern was constructing financially responsible subjects. As political circumstances changed, political support waned and the department stagnated, although it never diminished (Avigur-Eshel, 2018). A financial literacy index was used to research the relevance and impact of the sector and the region on financial literacy. Sector was found to mediate the effect of region on financial literacy and region had a similar effect in mediating between the sector and financial literacy in Israel (Ben-Simhon, 2018). A study shows the dynamics of the formation of the main teaching methods of a financial education course and has confirmed the urgent need to improve the financial literacy of students (Jacob, 2016). Research conducted in a high poverty rate area shows that individuals with low income who have acquired higher education have higher financial literacy compared to their counterparts with a lower level of education (May-Yazdi & BenDavid-Hadar, 2018). A study shows that the activities of searching for financial information and monitoring household expenses are positively correlated with retirement literacy (Meir et al., 2016).

Turkey's financial literacy is compared with other countries using the OECD/International Network on Financial Education (INFE) methodology and results show that financial knowledge and financial behavior levels are lower than the average of the 14 countries, whereas financial attitude level is around the average (Coskun et al., 2019). An Islamic financial literacy index is developed and calculated as 58% (Er & Mutlu, 2017). There is a significant relationship between a number of behavior biases and the level of financial literacy among investors (Ateş et al., 2016). Research on college students shows that higher financial knowledge scores are associated with more favorable financial attitudes and more desirable financial behaviors (Aydin & Selcuk, 2019), gender differences in financial literacy exist (Er et al., 2017), financial literacy levels of senior students are significantly higher than those of the first-year students (Gok & Ozkale, 2019), and students are overconfident in their ability to interpret financial and economic news and data (Karaa & Kuğu, 2016). Studies are also conducted on financial literacy among entrepreneurs (Ulukok et al., 2020), woman entrepreneurs (Narli & Oner, 2018), and furniture industry managers (Şahin & Serin, 2018). A study critically analyzes financial literacy education initiatives in Turkey through ethnographic research and finds that financial literacy curricula provide the basic knowledge of finance as well as instruct subjects ways to conduct financial planning, budgeting, debt management, creditworthiness, saving, and investment. Financial literacy agenda deepens neo-liberal

governmentality by promoting an entrepreneurial subjectivity and making individuals more aware and responsible for social risks (Ayhan, 2019).

In United Arab Emirates (UAE), research is conducted to examine the association between financial literacy and investment decisions among investors (Abdalla & Srivastava, 2017; Ibrahim, & Al Haron, 2018) or woman investors (Mathur et al., 2019). A study shows that Islamic financial literacy (IFL) is negatively correlated with the intention to use Islamic banking, but when the attitude towards Islamic banking mediates the relationship between IFL and the intention to use Islamic banking it then becomes positive (Albaity & Rahman, 2019). Research also explores demographic differences in financial literacy among expatriates in UAE (Suri & Purohit, 2017).

Other Countries in Middle East

In Egypt, research shows that financial literacy moderates the relationships among demographic characteristics of individuals and their tendency to take a risk (Shusha, 2017). A study also demonstrates that financial literacy is one of determinants of financial wellbeing, and rational buying partially mediates the relationship between financial literacy and financial wellbeing (Shusha, 2016). In Lebanon, a survey among bank customers shows a positive relationship between financial literacy and investment decision making (Alaaraj & Bakri, 2020).

Russia

Russia is a transcontinental country located in East Europe and North Asia. It is the largest country in terms of area. Its HDI ranked 49th in the world, consider a very high human development country. Its financial literacy score was 38, higher than the average in Asia.

In Russia, the National Financial Literacy Strategy was developed as part of the National Financial Education and Financial Literacy Project launched by the Russian Government with support from the World Bank in July 2011. In September 2017, the Government of the Russian Federation approved the strategy for improving financial literacy in the country for 2017-2023 (National Strategy), which is coordinated by the Ministry of Finance of the Russian Federation and the Bank of Russia (OECD, 2016, 2019).

The Russia is working to introduce financial education in schools, professional colleges and universities. In 2013 the Government developed core competencies for children and youth that are now being used to develop financial literacy educational programs. Currently, an important step is to introduce elements of financial literacy into mandatory subjects such as social studies, mathematics, literature, geography, and life safety. A wide variety of educational kits for school students from grades 2 to 11 and students in secondary vocational institutions was developed by the Ministry of Finance. In 2019, 11.5 million copies of the second edition were distributed free of charge to schools in 50 regions for students, teachers and parents. The national system of training for educators and tutors was also put into place. The Bank of Russia and more than 125 universities work together to improve the financial literacy of the Russian population. In the period from 2016 to present, the Bank of Russia has conducted more than 7000 open lessons on financial literacy in educational institutions (OECD, 2016, 2019).

Research papers on financial literacy in the Russian context published in academic journals are limited. A study examines financial literacy and its consequence during the financial crisis in Russia (Klapper et al., 2013). Another study explores characteristics associated with financial literacy among Russian debtors (Gagarina & Shantseva, 2017). Research is also conducted to assess financial literacy among finance

majors at a Russian university (Belousova et al., 2019) and compare Russian college students' financial literacy with those in other European countries (Ergün, 2018).

Conclusions and Policy Implications

This chapter has described financial literacy statuses, national strategies for financial literacy education, financial literacy education programs, and research about financial literacy in Asia. Financial literacy levels are diverse in various Asian countries, ranging from the highest score of 68 in Israel to the lowest score of 14 in Afghanistan. Many Asian countries have started to plan or implement national strategies on financial literacy education. Some have even started to implement a second round of national strategies for financial literacy. In many Asian countries, primary schools, secondary schools, and colleges are integrating financial literacy into the curriculum and promoting financial literacy in schools. Many government and non-government organizations promote financial literacy in local communities. The following are suggestions for public policy makers to consider how to further promote financial literacy education in Asia.

The goal of financial literacy education should be compatible with national socioeconomic developments and the quality of life of the host countries. Financial literacy education should focus on major issues that are of concern to the people in those countries. For example, if a current concern of a country is to reduce poverty, financial literacy education should focus on how to invest in human capital and identify job opportunities. If the current concern is to develop capital markets, financial literacy education should focus on long term investment related knowledge and skills.

School systems in each country should work with financial service industries to integrate necessary basic knowledge into curriculums comprehensively. For example, in schools, all common subjects can be integrated with financial literacy related information. Mathematics can be used to practice many life related math problems. Social Studies classes can discuss well-known cases of financial crises, scandals, and frauds.

Financial literacy professionals should exchange education ideas and best practices within a country or between countries in Asia and other parts of the world. Taking advantage of information technologies, many online tools and approaches can be used to exchange ideas and best practices. Because of the 2019 pandemic, online conferences have become common. This online format can be used to exchange financial literacy education best practices and ideas. Professional organizations interested in financial literacy education, such as the American Council on Consumer Interests, Association for Financial Counseling and Planning Education, and Asian Consumer and Family Economics Association, to name a few, can use this kind of platform more frequently. Relevant journals publishing financial literacy research such as the *Journal of Consumer Affairs*, *Journal of Family and Economic Issues*, *Journal of Financial Counseling and Planning*, and *International Journal of Consumer Studies*, can be used to publish research articles on financial literacy and its impact on consumer capability and wellbeing in the context of Asian countries. Some of these journals such as JCA, JFCP, and JFEI published special issues on consumer economic issues in the Asian contexts.

Financial service professionals should be aware of the value of financial literacy education and devote resources to spread professional knowledge they possess to benefit local communities, which can be an indicator of corporate social responsibility. Any company with a goal of sustainable development should join the common cause to improve consumer financial capability and wellbeing, which in return improves the competitiveness and profitability of the companies. Using data from the 2012 PISA,

research shows that students receiving courses taught by specialists from private institutions and non-governmental organizations obtain better results than students who receive financial education training from their teachers (Cordero et al., 2020).

Financial literacy education should focus not only on knowledge acquisition, but also on action taking to encourage desirable financial behaviors and informed financial decision making to improve consumer wellbeing. Consumer researchers should identify key financial behaviors for special populations to take in financial literacy education. For example, if educators believe tracking financial spending is a good habit for college students, they should encourage students to develop this desirable behavior by providing opportunities for them to practice and utilizing information technologies to facilitate the habit formation. Relevant behavior science theories, such as the transtheoretical model of behavioral change (Prochaska et al., 1992; Xiao et al., 2004a, 2004b) and the theory of planned behavior (Ajzen, 1991; Xiao et al., 2011), can be utilized to develop efficient and effective action-taking financial education programs.

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