Chapter 15
Exploring Issues and Challenges of Green Financing in Malaysia: Perspectives of Financial Institutions

Azlan Amran, Mehran Nejati, Say Keat Ooi and Faizah Darus

15.1 Introduction

Green financing is a vital but broad concept, involving a wide range of sustainability issues related to financial institutions. Globally, human life, land, and infrastructure have already been impacted by an increasing frequency and severity of extreme weather events. Pressure is growing for building long-term resilience. Progressively, many countries have begun working towards their own initiatives towards green growth development. For instance, China is increasing its renewable power generation in wind capacity and investment in low carbon transport. India has positioned itself to expand solar power generation and reduce its fossil fuel subsidies. Brazil has already reduced its deforestation rate by 70% from 2004 levels and comes to rely primarily on hydropower. Morocco plans to double its energy capacity and increase its renewable energy generation, representing 42% of all power generation.

Whereas developed countries such as Germany, Spain, Italy, and the UK have taken ambitious measures to boost renewable investment and comprehensive energy efficiency measures, including the reduction of building and vehicle emissions (Climate Works Foundation 2010).

A. Amran (✉) · S. K. Ooi
Graduate School of Business,
Universiti Sains Malaysia, Gelugor, Penang, Malaysia
e-mail: azlan_amran@usm.my

S. K. Ooi
e-mail: ooisaykeat@usm.my

M. Nejati
School of Business and Law, Edith Cowan University, Joondalup, Australia
e-mail: m.nejati@ecu.edu.au

F. Darus
Accounting Research Institute & Faculty of Accountancy,
Universiti Teknologi MARA, 42300, Shah Alam, Selangor, Malaysia

K. T. Çalıyurt and R. Said (eds.), *Sustainability and Social Responsibility of Accountability Reporting Systems*, Accounting, Finance, Sustainability, Governance & Fraud: Theory and Application, https://doi.org/10.1007/978-981-10-3212-7_15

Green growth refers to the balance of green economic growth for sustainable development, representing an economic growth pattern with the new driving power of "green". Finding new eco-friendly growth opportunities and the principle of green growth requires continuously improving manufacturing capacities, reducing the environmental pollution by utilizing green technology and knowledge, and expanding the energy and resources (Noh 2010). Green technology is one of the viable solutions adopted by a number of countries to simultaneously address energy and environmental issues (DSD 2011).

New technologies bear a certain amount of uncertainty, thus creating a barrier for its development. Recently, many green technology projects have been implemented with financial assistance, as the uncertainty results in high financing costs for research, development, and deployment. This in turn artificially raises the price of green technology options, delaying their full integration into the green technology marketplace. Typically, the initial cost for green technology equipment is substantially higher than the standard alternative and the payback period or economic return may be unacceptable. Therefore, green technology projects generally face difficulty in obtaining financing and bank loan approval due to the high risks involved as well as the lack of technical knowledge of the part of financiers (Mustapa et al. 2010).

Conceptually, a bank is a type of financial institution. Within the financial industry, banks play a vital role in supporting businesses and projects with various financing activities. Banks act as financial intermediary among various components in the society. The major task of a bank is to accept deposits and deliver surplus capital to people with shortages, through financial products and services such as investment, lending, advising, saving, settlement, and trust of real estate business (Economy Watch 2010).

Globally, financial services are moving towards sustainability. Sustainable finance usually addresses environmental, social, and governance impacts of financial services. Many leading financial institutions have begun to direct their resources and lending decisions towards curbing environmental degradation (DOE 2010). Sustainable finance is about engaging with environmental, social, and financial opportunities and risks in a systematic way while complying with regulation and voluntary standards as well as observing good practices in ethics and governance (Gerster 2011).

Despite government's effort in GTFS establishment, according to Malaysia SME (2010), many green SME entrepreneurs are still struggling to obtain loans from banks. Referring to EUMCCI (2012), the loan rejection rate is high, fifteen GTFS applicants had faced loan rejected by 14 local banks and 6 foreign-based banks. Hence, there is a relatively wide gap between the green SME entrepreneurs and those successfully financed with GTFS. To advance understanding about GTFS and its challenges, this research intends to explore the current state and issues regarding GTFS from the perspective of Malaysian financial institutions. Furthermore, this research will also identify motivations, challenges, and barriers of GTFS in Malaysia from the perspective of Malaysian financial institutions.

15.2 Green Technology in Malaysia

Green technology has been adopted worldwide to save the environment. Consequently, in acknowledging the issues of climate change and energy security, Malaysia has also taken steps to promote green technology as part of the solution. It is expected that the promotion of green technology would facilitate the achievement of Malaysia's Copenhagen commitment to voluntary reduce up to 40% in terms of emissions intensity of gross domestic product (GDP) by 2020 compared to 2005 levels. Additionally, green technology has been highlighted as one of the emerging drivers of economic growth for our country to achieve high-income status while addressing the pressing issue of the sustainability as stated in the New Economic Model (NEM) (Economic Planning Unit 2010). Green technology is a driver which may accelerate the national economy and sustainable development (Ismail 2010). It allows the nation to progress and at the same time minimizes the negative environmental impacts. According to KeTTHA (2011), the term green technology refers to the development and application of products, equipment, and systems used to conserve the natural environment and resources, which minimizes and reduces the negative impact of human activities. Criteria for green technology include the following:

1. Minimizing the degradation of the environment
2. Zero or low GHG emission levels
3. Being safe for use and promoting healthy and improved environment for all life
4. Conserving the use of energy and natural resources
5. Promoting the use of renewable resources.

Though green technology development in Malaysia is still in its infancy (DSD 2011), Malaysia is looking at green technology as the potential area of growth. Green technology has been highlighted as one of the emerging drivers of economic growth for Malaysia to achieve high-income status while addressing the pressing issue of the sustainability as stated in the New Economic Model (Economic Planning Unit 2010). Indeed, green technology deployed judiciously will deliver the double impact of accelerating Malaysia's economic growth while addressing pressing environmental issues. In fact, green technology has broad applications across different sectors, such as in energy production, manufacturing, services, and transport (Razak 2009).

As the environmental and climate change awareness has grown, the Malaysian government has begun to earmark green technology as a new driver for economic growth in a sustainable manner. The establishment of the Ministry of Energy, Green Technology and Water reflects Malaysia's seriousness in driving the clean and green as the way towards creating an economy that is based on sustainable development (DSD 2011).

In order to promote sustainable development and green technology, Malaysia has initiated many incentives, for instance, during the 2010 Budget Speech, Dato' Seri Najib Tun Abdul Razak, the Prime Minister of Malaysia, announced the

establishment of Green Technology Financing Scheme (GTFS) amounting to RM1.5 billion as an effort to improve the supply and utilization of green technology. This financing scheme is aimed to assist financial institutions in facilitating companies to pursue business in green technology (Ahmad et al. 2011), as access to finance is frequently cited as one of the key requirements for addressing climate change.

15.3 Method

This study applied a qualitative approach focus due to its shared construction of meaning with participants. The study method offers a flexibility in design, method, and process, which allows subjects to communicate their experiences without having them transformed by the researcher so as to alter their meaning in any significant manner (Bassett 2010). Data obtained from a focus group discussion and open-ended surveys constituted the qualitative data sources for this study. These methods were chosen to allow hearing the individual voices of experts, bankers, and representatives of Malaysian financial institutions, and to bring them together to share their opinions and thoughts regarding green technology financing in the focus group. Focus groups involve "the elucidation of subjective meaning, experience, beliefs, and attitudes, either through one-on-one interviews or small, facilitator-led, group discussion" (Whitley and Crawford 2005).

The focus group discussion consisted of bankers and other representatives from Malaysian financial institutions. The focus group discussion began with the establishment of norms for communication, as outlined by the session moderator. Then, the key themes to be discussed were determined. The focus group discussions were carried out in this project to offer a comprehensive view of the green technology financing and provide in-depth insights about the challenges, motivations, and benefits of green technology financing from the perspective of Malaysian financial institutions. More specifically, narrative analysis was used in this research, which aimed to "understand a particular case or several cases by looking closely at

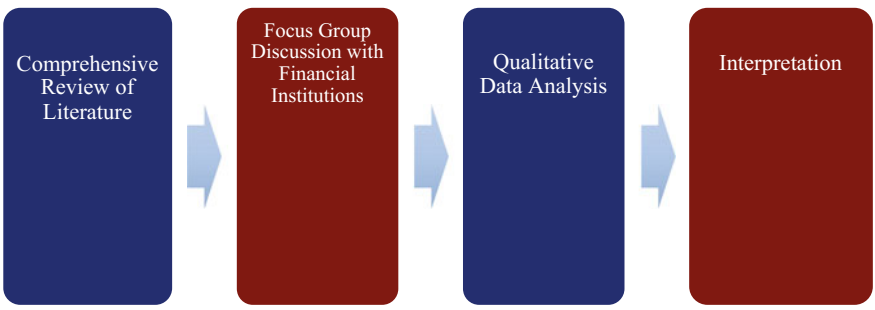

Fig. 15.1 Research methodology applied in the project

the details of each" (Rubin and Babbie 2005, p. 389). Fig. 15.1 depicts the flow of the research methodology applied in this project.

To complement the data collected for the core questions raised in the focus group discussion, an open-ended survey was designed in two sections and distributed among the participants in the focus group meeting. The first section covered questions regarding issues and challenges of green technology financing, while the second section addressed specific questions regarding initiatives, motivations, and perceived benefits of green technology financing. The participants of the round-table discussion were asked to complete the questionnaire after the focus group discussion session.

15.4 Findings

15.4.1 Initiatives

Banks play a vital role in supporting businesses and projects with various financing activities. As a result of this financing process, banks indirectly influence the society and environment through businesses and projects that they support. While green technology financing scheme allows the Malaysian banks to engage in sustainable financing through addressing the environmental, social, and governance impacts of their finances, most of the investigated banks have not undertaken any specific initiatives regarding the green technology financing. They tend to treat the applications for GTFS similar to any other loan applications.

Moreover, a number of the foreign banks also revealed that they had received limited applications under GTFS. Additionally, the representative from one of the banks argued that they promoted the scheme to their customers and did their part in terms of raising awareness regarding the scheme. However, they did not have any takers until that time. Overall, the summary of the findings on the existing initiatives of the banks on GTFS revealed that only 35% of them have established dedicated marketing team to market this special financing package under GTFS, and 17% of the banks have not undertaken any specific initiative for promoting green technology financing. Moreover, 12% of the banks have engaged consultants to obtain their expert opinion and advice on the technical knowledge required for evaluation of GTFS applications.

15.4.2 Challenges

It was found that the banks have gone through a lot of painful process in case of requesting for a claim.

As argued by many of the bankers, it is not easy to obtain a 60% guarantee in case something goes wrong with a loan. Thus, banks are very careful in financing

these projects to avoid the lengthy and painful process of requesting for the guarantee. Another major challenge is "total exposure". Based on the current guidelines, most of the current applicants for GTFS are linked to GLCs and other larger companies, which might negatively influence the level of financing provided to these SMEs due to the aggregate exposure guidelines. This limits the amount of the financing that can be provided to the applicant due to its indirect relation to a bigger player which formerly has been financed by the bank.

Moreover, in some specific projects such as solar power panels, the sponsors need to order some parts well in advance in order to obtain the LC, whereas the certification and financing project is also a time-consuming process. At the end of the day, the loan application might even be rejected. Hence, there appears to be a mismatch in this regard. Additionally, in many cases, the investment required for the project is beyond the limit allowed by the GTFS guidelines; hence, in case the project is approved by the bank, the extra amount of financing should be covered by the bank without any guaranteed support for the excess amount of financing. Thus, it creates more risks for the banks.

Another challenge is that according to the bankers, there has not yet been any success story about the projects financed. Even for projects still under construction, the banks face problems regarding delays. Hence, even the leading banks in financing green technology projects now prefer to take a "wait and see" approach to minimize their risks. The key reason is that after financing the project banks' major concerns start and they have to make sure that the project does not encounter any technical delays or failures. Lack of any screening criteria or critical success factors makes evaluating the applications under green technology financing even more difficult for the banks.

Another challenge for the banks is the issue of human capital as the banks lack enough staffs familiar with the technical aspects of green technology projects, and thus, the banks should refer to external consultants for that matter. Despite a lack of technical knowledge concerning green technology projects, banks do not just reject the proposals outright. They will seek necessary expertise for evaluation of the projects. Nonetheless, according to the banks, referring to external consultants does not necessarily provide the banks with reliable information. In some cases, the actual experience of the banks has been different from the projected analysis of the consultants and this has caused difficulties for the banks. Some banks have agreed that there is a need for the banks to have their own experts in various aspects of green technology to assist them in evaluating GTFS applications.

15.4.3 Motivations

The key drivers for GTFS by Malaysian banks have been found to be related to secure financing packages, guarantees and support by the government, feasibility of the project falling within the financing criteria by the bank, interest subsidies obtained, and supporting government and the sustainability agenda. More

specifically, the results of our analysis have revealed that the most significant motivation for GTFS, as perceived by banks, is the government guarantee. However, only 25% of the banks adhere to that. Moreover, 15% of the banks consider a feasible and viable project as the key incentive for GTFS, while only 9% of them find a bankable project to be financed as the pivotal driver for GTFS.

Most of the banks investigated appear to be profit-oriented. Other than the interest rate charged by the banks, they are mostly concerned about the viability of the proposed projects and are willing to finance the application if it is feasible and viable. Additionally, the 60% guarantee offered by the government seems to attract some of the banks. However, further discussion we conducted with the bankers revealed that they would be more willing to engage in green technology projects if a higher guarantee were to be provided by the government (Fig. 15.2).

15.4.4 Barriers

Most bankers consider the applicants as the source of barriers for green technology financing and they consider external environment to be the least impeding factor. More specifically, 49% of them perceive the applicant as the key source of impediments to green technology financing. Our findings have shown that the bankers perceive the issues related to both financial institutions and government to play equally important roles as barriers to green technology financing. Interestingly, the banks find the external environment to have the least role in impeding green technology financing.

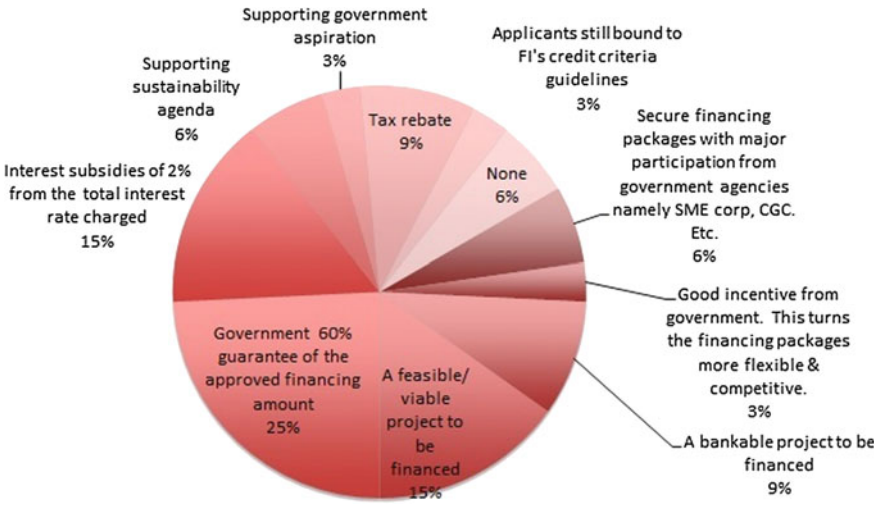

Fig. 15.2 Motivations for GTFS (Percentage)

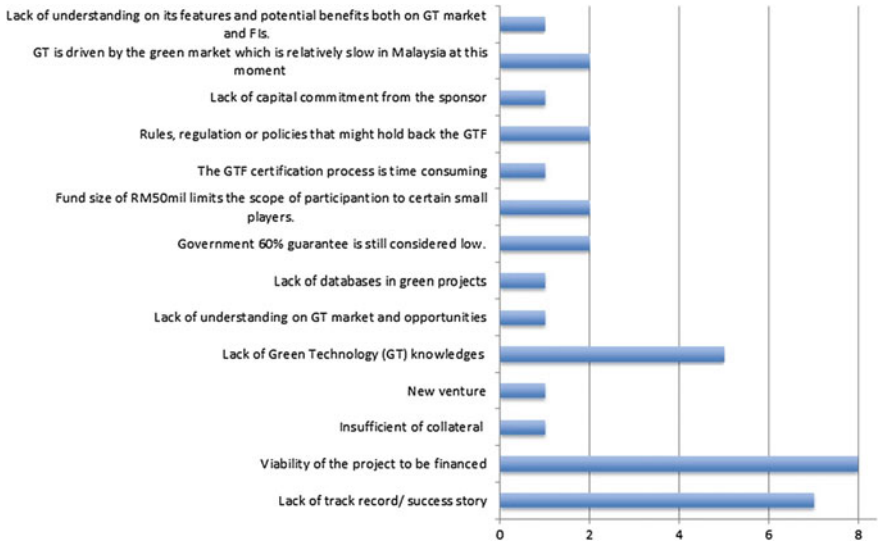

Fig. 15.3 Major barriers for GTFS

More specifically, we found that the top three major barriers to the success of green technology financing from the perspective of bankers include viability of the project to be financed, lack of track record/success study, and lack of knowledge of green technology. This indicates that in financing green technology projects, banks are mostly concerned about the viability of the project. Moreover, the lack of any success story of the similar projects in the past, coupled with the insufficient knowledge of the banks towards green technology financing, further discourages banks from financing these projects (Fig. 15.3).

15.5 Concluding Remarks

Despite targeting SMEs, green technology financing schemes appear to be more attractive to big players and larger companies have been interested to apply for GTFS in the past. The inclusion of large players in the scheme, coupled with the higher amount of investment required for some areas of green technology, requires greater funding capital, which is beyond the current limit supported by the government.

In the current study, a majority of representatives from the banking sector found green technology financing as a risky initiative for their corporation with little or no success story in the past to refer to. Hence, they mainly considered GTFS as a cost to their organizations. Assuming that these opinions by the bank representatives are a reflection of the organizations perceptions towards green technology financing,

the high risks involved in the GTFS are the main restraining force for banks to demonstrate a tendency towards this financing scheme.

Since the major driving force for banks to finance any project was found to be monetary returns, according to force field analysis, banks will proactively involve in green technology financing when the driving forces far outweigh the restraining forces. Under current conditions, it appears that the negative forces (risks of financing green technologies and lack of any database for key success factors for green technology) are much higher than the potential benefits obtained from such activity (Fig. 15.4). Hence, banks do not become proactively involved in such a financing scheme and will entertain any application for GTFS similar to other loan applications without giving any priority to GTFS applications despite being a government initiative.

While the government intends to promote the development of green technologies through engaging small and medium-sized enterprises in this green initiative, the banks mainly consider GTFS as a new type of loan application involving huge risk for the banks, coupled with unreliable profit potential due to the immature market for green products. To create a market for these products, the bankers suggested encouraging customers, suppliers, and industry to use green products. This is where government may come into play to raise awareness and promote the usage/consumption of green products, eventually enhancing the viability of green technology projects and increasing the likelihood of obtaining financing from the banks.

Based on the existing challenges in the efficient implementation of green technology financing scheme and inputs by the representatives from the banks and financial institutions, coupled with a comprehensive review of the literature and existing documents on GTFS, a number of suggestions for enhancing the scheme in future are provided in the following:

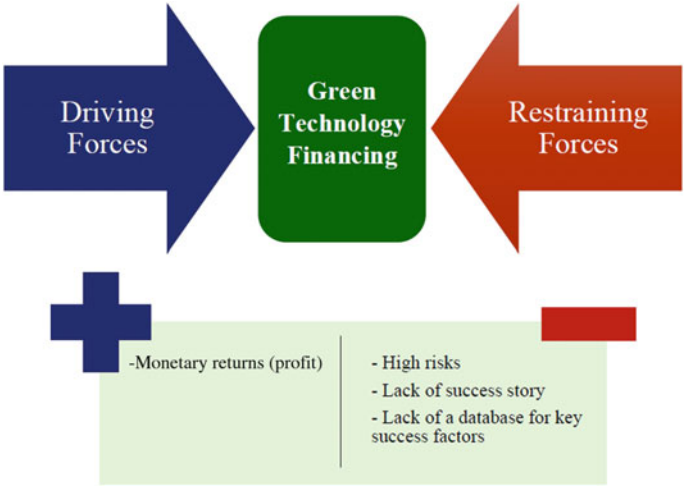

Fig. 15.4 Force field analysis for GTFS by financial institutions

- Making the certification process more efficient by ensuring the bank representatives in the evaluation meeting provide valuable guidance to applicants on how to consider and ensure their business viability.
- Increasing the fund size for GTFS projects and providing a more attractive guarantee or support by the government to encourage the engagement of more banks in green technology financing schemes.
- Formulating the key screening criteria and success factors to help banks assess GTFS applications.
- Training bankers on how to evaluate GTFS applications and addressing the issue of human capital for banks.
- Creating market readiness by encouraging customers, suppliers, and industry to use green products.

Banks are not only the recipient, but also the purveyors of socially responsible investments (Montgomery and Ramus 2003). Thus, they should look at GTFS as an opportunity to fulfil their responsibility towards community through financing and investing in responsible and green projects. Numerous authors have claimed that social and environmental issues may lead to opportunities to develop new financial products or to avoid hidden financial risks from related players. Additionally, it has been found that financial markets may play a key role in achieving the goals of sustainable development in both developed and developing countries (Dasgupta et al. 2001; Labatt et al. 2002; Lanoie et al. 1998).

Implementing corporate sustainability is a complex process requiring continuous internal embedding, human interactions, and understanding of the nature of sustainability (Basu and Palazzo 2008; Pfeffer 2010). As earlier studies have indicated the positive role of internal change agents in catalyzing role in sense-making processes to implement sustainability (Van der Heijden et al. 2010), it is essential to raise awareness in bank managers to proactively support green technology financing schemes in line with the banks efforts to implement corporate sustainability initiatives.

References

Ahmad MM, Ali RM, Inayat A, Yusupa S (2011) Potential development of hydrogen production from biomass in Malaysia: a brief perspective. Int J 2(1):45–50

Bassett R (2010) Time to catch up… qualitative research in child and adolescent psychiatry. J Can Acad Child Adolesc Psychiatry 19(1):2

Basu K, Palazzo G (2008) Corporate social responsibility: a process model of sensemaking. Acad Manag Rev 33(1):122–136

Climate Works Foundation (2010) From climate finance to financing green growth. Project Catalyst briefing paper. San Francisco, California

Dasgupta S, Laplante B, Mamingi N (2001) Pollution and capital markets in developing countries. J Environ Econ Manag 42(3):310–335

DOE (2010) Quarterly DOE update on environment, development and sustainability: IMPAK, issue 3. Department of Environment, Malaysia

DSD (2011) Occupational structure. Green Technology Industry: Department of Skill Development, Ministry of Human Resources, Malaysia
Economic Planning Unit (2010) 10th Malaysia plan, 2011–2015. Economic planning unit. Prime Minister's Department, Putrajaya
Economy Watch (2010) Banking industry. http://www.economywatch.com/banking. Accessed 10 July 2013
EUMCCI (2012) EUMCCI trade issues and recommendations 2012. EU-Malaysia Chamber of Commerce and Industry, Kuala Lumpur
Gerster R (2011) Striking a balance ahead of Rio+20 in 2012. Sustainable finance: achievements, challenges, outlook. Gerster Consulting, Switzerland
Ismail AZ (2010) Development of national green technology. Ministry of energy, Green technology and water, Malaysia
KeTTHA (2011) Green technology financing scheme. http://www.kettha.gov.my/en/content/green-technology-financing-scheme-gtfs. Accessed 10 July 2013
Labatt S, White RR (2002) Environmental finance: a guide to environmental risk assessment and financial products. Wiley
Lanoie P, Laplante B, Roy M (1998) Can capital markets create incentives for pollution control? Ecol Econ 26(1):31–41
Malaysia SME (2010) Where is the green money? Accessed 10 July 2013, from http://www.malaysiasme.com.my
Montgomery DB, Ramus CA (2003) Corporate social responsibility reputation effects on MBA job choice. A Research Note: Stanford Graduate School of Business, Stanford, CA
Mustapa SI, Leong YP, Hashim AH (2010) Issues and challenges of renewable energy development: a malaysian experience paper presented at the PEA-AIT. In: International conference on energy and sustainable development: issues and strategies (ESD 2010). Chiang Mai, Thailand
Razak N (2009) Launch of green technology policy speech, 24 July 2009. Retrieved 22 July 2013, from http://www.mylns.com.my/newsroom.php?id=2
Noh HJ (2010) Strategic approaches to develop green finance. Korea Capital Market Institute
Pfeffer J (2010) Building sustainable organizations: the human factor. Acad Manag Perspect 24(1):34–45
Rubin A, Babbie E (2005) Research methods for social work, 5th ed. Brooks/Cole-Thompson Learning, Belmont, CA
Van der Heijden A, Driessen PP, Cramer JM (2010) Making sense of corporate social responsibility: exploring organizational processes and strategies. J Clean Prod 18(18): 1787–1796
Whitley R, Crawford M (2005) Qualitative research in psychiatry. Can J Psychiat 50(2):108–114

Author Biographies

Azlan Amran started his career as a lecturer at the School of Management, Universiti Sains Malaysia in 2006. He is now a Professor at the Graduate School of Business in the same University. Prior to joining USM, he worked as an accountant for several years. He has published a significant number of articles in the area of CSR in both local and international journals. He is currently supervising Ph.D., MBA, and Masters candidates in CSR. At present, he holds the position of Dean at the Graduate School of Business. In terms of practical experience, he has been involved in several training and consultancy projects in Accounting-related issues and Corporate Social Reporting. He is currently holding several grants to support his research on CSR-related issues. He is also a member of the editorial board for several international journals. At the national level, he is a Technical Committee member for ISO 26000.

Mehran Nejati is a Senior Lecturer and the MBA Director in the School of Business and Law at the Edith Cowan University, Australia. He was a Visiting Scholar at Flinders Business School, Australia in 2015. He holds a Ph.D. in Management and is a Certified Six Sigma Green Belt by American Society for Quality. His main areas of research interest includes marketing, social responsibility, sustainability and ethics. He has published over 30 papers in peer-reviewed journals, indexed by Scopus and ISI, and ranked by ABDC.

Say Keat Ooi is a Lecturer at the Graduate School of Business (GSB), Universiti Sains Malaysia (USM). Previously he worked as manager in few pharmaceutical companies. His research area is in corporate social and environmental reporting, corporate social responsibility, and issues in corporate sustainability. He has published several papers in local and international journals.

Faizah Darus is a Professor of Accounting at the Faculty of Accountancy, Universiti Teknologi MARA (UiTM), Malaysia and a fellow of the Accounting Research Institute (ARI). She is currently the Head of the UiTM-ACCA Asia-Pacific Centre for Sustainability (APCeS), a collaborative research centre between UiTM and ACCA. She lectures at the Faculty of Accountancy and has taught various subjects at the post-graduate and under-graduate levels in the areas of Financial Reporting, Strategic Management and Company Secretarial Practice. She is also currently supervising Ph.D., Master by Research and Master by Coursework students in the area of financial reporting and corporate social responsibility (CSR). Professor Dr Faizah Darus obtained her Ph.D. in Accounting from Adelaide University, Australia, has an MBA from University of Arkansas, USA, a professional qualification from the Institute of Chartered Secretaries and Administrators (ICSA) UK and a bachelor degree in Accounting from Indiana University, Bloomington USA. Her primary research interest is in corporate reporting and her research projects cover areas of mandatory and voluntary disclosures in corporate reports, corporate social responsibility disclosures including from an Islamic perspective and in the area of corporate governance. She is a regular speaker at national and international conferences and has been invited to become a key-note speaker and conference panellist. She is the co-author of a book entitled Financial Accounting and Reporting in Malaysia. She is also the author and co-author of various chapters in books and has published numerous articles in international journals in the areas of financial reporting and CSR. She is currently an editorial board member for the journal Issues in Social and Environmental Accounting Journal (ISEA), issued by the Indonesia Centre for Social and Environmental Accounting Research and Development and a member of the ACCA shortlisting judges for the ACCA Malaysia Sustainability Reporting Awards (MasRA).