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Research Article

Sustainability performance of multinational companies in Malaysia

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ABSTRACT

This study investigated the influence of market environment, cultural distance, government policy, and absorptive capacity on international intra-firm technology transfer and organizational sustainability performance among subsidiaries of foreign-based multinational corporations (MNCs) in Malaysia. Quantitative data was collected from randomly selected 252 MNC-Subsidiaries in Malaysia. Data analysis revealed that market environment, determined by market dynamism and competitors' intensity; cultural distance determined by national and organizational cultural distance; along with absorptive capacity, captured by the constructs of ability and motivation have a significant positive effect on intra-firm technology transfer. The study also revealed a significant positive influence of intra-firm technology transfer on organizational sustainability performance across the sample. Furthermore, the results showed a significant indirect effect of market environment, cultural distance, and absorptive capacity on sustainability performance through (mediation) intra-firm technology transfer. The results of this study could serve as a specific reference for policymakers of rapidly emerging economies in order to strengthen policies for a more dynamic, competitive, market and support their citizens to acquire relevant education, skills, and cultural awareness that would enhance technological inflows leading towards improved organizational sustainability.

1. Introduction

Sustainability issues are rapidly gaining emerging prominence among stakeholders and organizations globally. Credit goes to its ability to summon organizational efforts towards reduction in energy-use, environmental protection, corporate reputation, investor relations quality management, and customer satisfaction (Caiado et al., 2018). Organizational sustainability emphasizes on having a long-term focus and promoting intra-and inter-generational equity, considering the stakeholders' needs, and thereby addressing the environmental, social, and economic performance of an organization (Searcy, 2016). Organizational sustainability performance helps firms to identify, financial, reputational, operational, strategic opportunities. It further enables organizations to mitigate emerging risks and thereby influence both their financial performance and value. In an earlier study, Bansal and Roth (2000) noted that sustainability initiatives address the legitimation, competitiveness, and ecological responsibility related to a firm. Perhaps this is the reason

an increasing number of enterprises has incorporated sustainability concerns into their strategic plans and processes, by establishing sustainability-related programs and policies, to respond to such emerging issues (Searcy, 2016).

MNCs, as international businesses, can play a leaders' role in progressing and fulfilling global sustainability goals (Andersson et al., 2005) through superior sustainability performance. MNCs play a significant role, particularly in a host economy, in the form of foreign direct investment (FDI), which is crucial for growth of local businesses, creating employment, and increasing consumption, thereby developing the overall economy of the host nation (Hooi, 2010). In the context of Malaysia, foreign MNCs generate significant investments and employment opportunities and thus positively influence the local economy, through export of manufacturing output and transfer of innovative technologies (Hooi, 2010; Rasiah et al., 2010). In a recent study, Spezamiglio et al. (2016) stressed that such innovative technologies could facilitate not only firms but also societies to achieve sustainability.

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Apart from governments and societies at large, corporations are increasingly displaying awareness towards challenges and opportunities related to the economic, social, and environmental impact of their operations (Searcy, 2016). However, several corporations have been struggling to develop, improve, and implement an integrated analytical framework that delivers reliable and synthesized information of firm's sustainability performance (Searcy, 2016), thanks to limited empirical research focusing on firm-level sustainability performance (Searcy, 2012). Shaw and Luiz (2017) mentioned that the generation and diffusion of knowledge globally is the key to sustainable innovations and a significant source of organizational competitiveness (Tour et al., 2011). However, antecedents and consequences of such technology transfer remain inconclusive in existing literature (VanWijk et al., 2008). Hence to gain a nuanced understanding of the factors that facilitate superior organizational sustainability performance, this study examined the effect of selected variables (i.e., market environment, cultural distance, government policy, and absorptive capacity) on international intra-firm technology transfer and sustainability performance among the subsidiaries of foreign-based MNCs in Malaysia, in an attempt to bridge the highlighted gaps in literature and practice.

2. Literature review

2.1. Context of study

In a broader perspective, the limitation of natural resources along with escalating social (e.g., poverty, income inequality) and environmental issues (e.g., carbon emissions), compared to current consumption and production paradigm reflects the urgency to enable global sustainable development (Morioka and de Carvalho, 2016). Thanks to globalization, coupled with global changes in technology and the market integration of economy; sustainability became of particular concern for ongoing entities after the Brundtland Report of the United Nations World Commission on Environment and Development (1987), which emphasized the social, environmental, and economic performance of organizations (Fazal et al., 2019). According to Al Mamun et al. (2018), intricacies in business, coupled with enhanced global transformation, have impelled firms to be responsible citizens towards realizing sustainability agendas. MNCs are a significant player of the sustainability dilemma (Fazal et al., 2019). MNCs are perceived as major producers of technological knowledge in the global economy, actively taking responsibility for the development of innovative technologies for industrial applications (Zeile, 2014). Moreover, in terms of financial significance, the World Investment Report (2014) disclosed that the cash holdings of MNCs are in the order of \$5 trillion, with sovereign wealth fund assets exceeding \$6 trillion and investments of \$7.7 trillion currently in developing economies alone (Unctad, 2014). This shows the enormous contribution of MNCs, not only to national economies but also to the global one.

2.2. Theoretical foundation

Recent research expressed stakeholder pressure as a driver of sustainability (Berg et al., 2018). Stakeholder theory can thus provide a useful starting point for anchoring an enquiry into organization sustainability performance (Sandhu, 2013). According to the stakeholder theory, every stakeholder providing resources to a firm has methods of withholding it or attaching condition to its supply (Freeman, 1984; Frooman, 1999). Thus, stakeholders (e.g., competitors, suppliers, consumers, and shareholders) can influence a firm's behavior whereby firms change their behaviour accordingly under pressures from significant stakeholders (Frooman, 1999). However, this theory ignores the dynamics that occur within the firm (Sandhu, 2013), such as transfer and adoption of innovative technologies, which could facilitate superior sustainability performance. Nicoläescu et al. (2015) mentioned that at the center of business pattern, innovation reflects re-consideration of the

goods and services that the company provides to its stakeholders. At such point, the resource-based theory helps to explain the complete standpoint of present study, with its focus on inimitable, firm specific, internal resources that differentiates the strategic choices of a firm and develop sits internal competencies which, in turn, when applied to appropriate external environments, could secure sustainable competitive advantages or sustainability (Barney, 2001; Grant, 1991; Hart, 1995; Wernerfelt, 1984). Research showed that organizational sustainability performance is impacted by knowledge deficiencies, board composition, favorable cultures, resources and strategies, government guidelines, market tendencies, and competition (Lăzăroiu et al., 2020). Therefore, integrating the stakeholder and resource-based underlying, we argue that market environment, cultural distance, government policy, and absorptive capacity as salient traits of significant stakeholder (the host-country) could influence firms to transfer and adopt innovative technology, which in turn facilitates achieving superior sustainability performance.

2.3. Measuring sustainability performance

Measuring sustainability performance effectively remains a challenge for sustainable transition. It is crucial to use sustainable performance measurement systems in order to respond to internal and external levers that could in turn guide corporate strategies and operations (Caiado et al., 2018). According to Lăzăroiu et al. (2020), performance evaluation system indicators need to be adequately capable to evaluate sustainability mainstays as well as their determinants. In this regards, internal management process, performance measurement system with strategic measures, interdisciplinary and holistic outlook, as well as supply chain integration represent certain critical points that could be focused in order to measure sustainability performance (Caiado et al., 2018). In an earlier study, based on empirical evidence, Maletič et al. (2012) presented four dimensions that build up the organizational sustainability performance measurement framework including strategies, stakeholders, capabilities and processes. According Nicolăescu et al. (2015), high sustainability enterprises employ executive compensation into a task of interactional, environmental, as well as external perception standards, evaluating data associated with essential stakeholders coupled with auditing procedures.

2.4. Market environment and international intra-firm technology transfer

Market environment refers to the nature and intensity of competition along with changing customer preferences that influence industry dynamics (Cui et al., 2006). On the other hand, international intra-firm technology transfer depicts a complex process through which new knowledge, technology, or know-how embodied in products, processes, and management are transferred from one unit to another within an organization (Wahab et al., 2012). According to Caiado et al. (2018), competitive market pressures lead to adverse consequences towards societies and ecosystems, followed by the need for environmental conservation reflected by the escalating demand for natural resources. On the other hand, Nicoläescu et al. (2015) suggested that competitive markets summon active elasticity and reactions. In a more recent study, Lăzăroiu et al. (2020) revealed that organizational sustainability performance is impacted by market tendencies and competition, wherein competitiveness is progressively associated with the implementation of sustainable innovations. Since the existing empirical evidence seemed to suggest that a dynamic market represented by changing customer preferences and technology along with increasing competitors' intensity within the industry significantly influence the diffusion and adoption of innovative technology, this study focused on market dynamism and competitive intensity as the two dimensions to capture market environment. Market dynamism refers to the degree of variation in customer demand and preference (Jaworski and Kohli, 1993) that obsoletes a firm's current market knowledge at a rapid pace (Droge et al., 2008). Competitive intensity, as the other driving force for adoption of new technologies, refers to the extent of competition an organization faces in a particular market (Cui et al., 2006; Grewal and Tansihaj, 2001). According to Robertson and Gatignon (1986), a competitive market environment influences technology suppliers and is explicitly linked to the technology transfer process. Moreover, Caiado et al. (2018) noted that market demand for eco-friendly products along with market stakeholders (i.e., competitors, suppliers, consumers, and shareholders) responds favorably towards innovation and sustainable initiatives. Furthermore Nicoläescu et al. (2015) highlighted that competitor represent one of the most important drivers to organization's approach to sustainability. It is thus perceived environmental uncertainties increase the likelihood of adoption of innovation by an organization that in turn facilitate sustainability performance. Hence, we propose the following hypothesis:

H1. Market Environment has a significant positive effect on International intra-firm technology transfer and organizational sustainability performance among the MNC-subsidiaries in Malaysia.

2.5. Cultural distance and international intra-firm technology transfer

Cultural distance can be defined as the difference or similarities between the cultures of the home and host countries. This difference or similarities influences the sharing of information and communications between firms or organizational units (Cui et al., 2006). Caiado et al. (2018) stressed on the cultural influence through disseminating information, motivation, and management commitment to achieve sustainability in the long term. According to Nicolăescu et al. (2015), firms that are not hallmarked by a culture of sustainability tend to shrink due to restraining opportunistic conduct. Both variations in culture at the national and organizational levels are considered as major factors in the transfer of technology (Kedia and Bhagat, 1988). The fundamental differences between national culture of home and host country of an MNC are referred to as the national cultural distance (Shenkar, 2001). Organizational cultural distance, on the other hand, reflects the underlying dissimilarities or similarities in the organizational cultures between two firms or organizational units (Cui et al., 2006). Kedia and Bhagat (1988) suggested that significant cultural factors constrain the process of technology transfer. Moreover, according to Kostova (1999), the successful transfer of technology from the headquarters to its sub-unit is positively associated with the degree of compatibility between the values implied by the practices and the values that underpin organizational culture. Furthermore, Nicolăescu et al. (2015) mentioned that corporate cultures and operational routines satisfy dynamic market requisites, and sustainability is thus recognized as an indispensable element of organizational culture. Based on the above we propose the following hypothesis:

H2. Cultural Distance has a significant positive effect on International intra-firm technology transfer and organizational sustainability performance among the MNC-subsidiaries in Malaysia.

2.6. Government policy and international intra-firm technology transfer

Government initiatives could facilitate the adoption of strategies, such as sustainable environmental management and private financing that embed the capacity of promoting capital allocation towards organizations pursuing sustainable operations (Caiado et al., 2018). According to Nicolăescu et al. (2015) sustainable development originates from a steady enlarging tendency of government participation, wherein government regulators act as most crucial drivers of companies' approaches to sustainability. In a recent study, Lăzăroiu et al. (2020) highlighted that government guidelines in terms of action-oriented plans, advancing infrastructure, furthering sustainable outcomes and facilities represent effective determinants influencing sustainable performance. Some sects of government policies are more significant determinants of FDI spillovers that facilitate knowledge diffusion (Coe et al., 2009), such as host country policies regarding trade, foreign investment and technology, which impose restrictions on the nature and extent of FDI and technology transfer (Blomström, Globerman and Kokko, 2001). Hence, as for this study, the trade and technology policies of a host country are the two dimensions of the country's government policy that are expected to affect the intra-firm technology transfer. Existing studies suggest that legal and regulatory certainties equate to more attractive foreign investments for a country, leading to increased technology transfer (Hayakawa et al., 2013; Rasiah et al., 2010). According to Kokko et al. (2001), trade policies not only influence the technological traits of inward FDI but also affect the level of spillovers. On the other hand, complimentary technology policies of a host nation promote technology transfer (Hu et al., 2005), as international technology transfer within MNCs still remain sensitive towards the perceived strength of IPR protection (Branstetter et al., 2006). Based on the above we propose the following hypothesis:

H3. Government Policy has a significant positive effect on International intra-firm technology transfer and organizational sustainability performance among the MNC-subsidiaries in Malaysia.

2.7. Absorptive capacity and international intra-firm technology transfer

Following Cohen and Levinthal (1990), this study focused on host country's characteristics as stakeholder features influencing intra-firm technology transfer. Hence, for this study, absorptive capacity is perceived as educational and technical qualifications, labor skills, and learning capability traits of the host country citizens employed in the subsidiaries of foreign-based MNCs in Malaysia. Based on existing literature, it is perceived that employees' ability and their motivation to adopt and apply improved knowledge would reflect the two dimensions of absorptive capacity that facilitate technology transfer processes (Cohen &Levinthal, 1990; Minbaeva et al., 2003). Kedia and Bhagat (1988) suggested that absorptive capacity of recipients is one of the several factors that could determine the process of technology transfer. According to Nicolăescu et al. (2015) sustainable environment is conditional to the existence of organizations' regenerative and absorptive strength. Particularly, in the Malaysian context, Rasiah (2002) argued that, employed by dynamic multinationals, local employees with both experiential and tacit knowledge could contribute toward upgrading the functions of their respective organizations and thereby enabled these organizations to specialize in higher value-added operations. Hooi (2010) further added that Malaysian employees with such knowledge have been crucial linkages in technology transfer processes. Based on the above, we propose the following hypothesis:

H4. Absorptive capacity has a significant positive effect on International intra-firm technology transfer and organizational sustainability performance among the MNC-subsidiaries in Malaysia.

2.8. International intra-firm technology transfer and organizational sustainability performance

Organizational sustainability performance refers to the creation of inter- and intra-organizational business systems focused on stakeholders that consider the integrated economic, environmental, and social contexts of performance over both short and long-term within the boundaries imposed by nature and society (Searcy, 2016). According to Caiado et al. (2018), innovation facilitates sustainable initiatives, as the type of technology used by the organization has the potential to create economic structures that redistribute environmental costs and benefits. In a more recent study, Lăzăroiu et al. (2020) revealed that organizational sustainability performance is impacted by market tendencies and competition The relationship between intra-firm technology transfer and organizational sustainability performance can be addressed by the RBV, which asserts that non-replicable resources and knowledge (such as innovative technologies) can direct firms to become competitive in profitability, social responsibility, and environmental efficiency (superior sustainability performance) (Barney, 2001; Hart, 1995).

Technology breakthroughs facilitate sustainable development (Lăzăroiu et al., 2020). Research posits that firms need to constantly transfer and acquire innovative knowledge to create new applications and sustain in the market (Kogut & Zander, 1992). According to Nicolăescu et al. (2015) technology could generate sustainable goods and services. Previously, Lane et al. (2001) established that knowledge transfer is positively associated with firm performance and innovation. Moreover, according to VanWijk et al. (2008), transferring knowledge from external sources is crucial for a firm's success. Particularly, in the context of intra-firm technology transfer, empirical evidence supports that internal knowledge transfer across organizational units within firms provides competitive advantage (Gupta & Govindarajan, 2000). Furthermore, according to Searcy (2016), many corporations have progressed and improved their respective sustainability performances through their internal operations, which could be internal transfer of innovative technologies. Based on the above, we propose the following hypothesis:

capacity on organizational sustainability performance among the MNC-subsidiaries in Malaysia.

Based on the above review of literature, the following research model was developed portraying the various presumptions of this study.

3. Methodology

This study adopted a cross-sectional method and quantitative analytical research design to investigate the effect of selected factors, i.e., market environment, cultural distance, government policy, and absorptive capacity on international intra-firm technology transfer and organizational sustainability performance among the foreign-based MNC-subsidiaries in Malaysia. The survey data for this study was collected through self-administered questionnaires from top managers of the foreign-based subsidiaries in Malaysia. The research model is observed in Fig. 1.

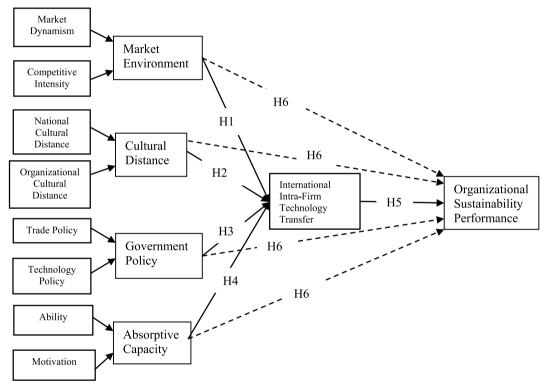


Fig. 1. Research model.

H5. International intra-firm technology transfer has a significant positive effect on organizational sustainability performance among the MNC-subsidiaries in Malaysia.

2.9. The mediating effect of international intra-firm technology transfer

This study conceptualized market environment, cultural distance, government policy, and absorptive capacity as factors affecting international intra-firm technology transfer, while articulating such technology transfer as a facilitator of superior organizational sustainability performance. Hence logically and based on literature (c.f. Desarbo et al., 2005) we presume that the effect of external factors, such as host country characteristics, on firm performance is mediated by the transfer and adoption of innovative technologies.

H6. International intra-firm technology transfer mediates the effect of market environment, cultural distance, government policy, and adsorptive

3.1. Research instrument

The survey questionnaire was worded using simple unbiased language to enable respondents apprehend the items easily. The variables designed for market dynamism, competitive intensity, and organizational cultural distance were borrowed from Cui et al. (2006), while the items for national cultural distance were adapted from Simonin (1999). Moreover, questions for trade and technology policy were worded from Kumar et al. (1999) and Blomström et al. (2001). The measures for ability and motivation were adapted from the study by Minbaeva et al. (2003) and the items for international intra-firm technology transfer were borrowed from Al-Abed et al. (2014). Finally, the items for organizational sustainability performance were adapted from Staub et al. (2016) and Gualandris et al. (2014). A seven-point Likert scale (strongly disagree, disagree, may be disagree, neutral, may be agree, agree, and strongly agree) was used for all the variables.

3.2. Sample selection

The subsidiaries of international MNCs that operated in Malaysia formed the population for this study. Random sampling method was used for sample selection. The details of the MNCs were gathered from the Malaysian Investment Development Authority (MIDA). A total of 252 respondents, each representing one MNC-subsidiary from various industries located all over Malaysia participated in the survey.

3.3. Common method variance (CMV)

In order to minimize the effect of systematic measurement error or CMV and provide procedural remedies, we constructed the items carefully and "informed the respondent that the responses will be evaluated anonymously and there are no right or wrong answers", during the data collection procedure (c.f. MacKenzie and Podsakoff, 2012). For statistical remedy, we adopted Harman's (1976) one-factor test, as recommended by MacKenzie and Podsakoff (2012), in which the one-fixed factor extracted from all principle constructs is expected to explain less than 50 percent of the variance. The findings of this test showed that the component one explains 38.26% of the variance, which is less than the maximum threshold of 50%. Moreover, a correlation of more than 0.9 is considered as an indicator of common method bias (Bagozzi et al., 1991). The highest correlation between the constructs is 0.733, which indicates the lack of common method bias in the collected data.

3.4. Multivariate normality

Following Peng and Lai (2012) for estimating models, which may violate the multivariate normality assumption; this study tested the multivariate normality using the online tool named "Web Power." Web Power calculated Mardia's multivariate skewness and kurtosis coefficients and p-values. The findings of the test reported Mardia's multivariate skewness, p < 0.05, which confirms the non-normality. Moreover, the multivariate kurtosis p < 0.05 further confirmed the non-normality of data used in this study.

3.5. Data analysis methods

Considering the exploratory nature of present study along with the non-normality issue, we used the variance based structural equation modeling—PLS estimation—with the primary objective of maximizing the explanation of the variance in the structural equation model's dependent constructs. The findings of the PLS analysis is reported as per the recommendations of the study by Hair et al. (2013).

Table 1 Reliability analysis.

Variable CA DG rho VIF Items SD AVE Mean CR MD 0.881 4 5.070 0.935 0.881 0.918 0.736 1 834 0.924 0.837 0.839 0.891 1.834 CI 5.164 0.671 8 ME 5.115 0.847 0.899 0.901 0.919 0.588 1.637 0.838 0.845 0.903 0.757 NC 3 4.930 1.117 1.856 OC. 4 0.887 0.747 4.920 1.016 0.887 0.922 1.856 CD 7 4.926 0.971 0.903 0.905 0.923 0.633 1.926 TF 4.894 0.934 0.873 0.879 0.914 0.728 1.873 TP 3 0.852 4.975 1.019 0.852 0.910 0.771 1.873 7 GP 4.929 0.891 0.901 0.902 0.922 0.629 2.284 3 AB 5.155 1.008 0.868 0.871 0.919 0.791 1.959 5 0.893 0.874 0.876 0.908 MT 5.289 0.665 1.959 AC 8 5.239 0.864 0.907 0.909 0.925 0.608 1.848 9 0.795 TT 5.271 0.907 0.908 0.924 0.574 1.000 OS 11 5.275 0.718 0.917 0.922 0.930 0.546

Notes: Market Dynamism (MD); Competitive Intensity (CI); Market Environment (ME); National Cultural Distance (NC); Organizational Cultural Distance (OC); Cultural Distance (CD); Trade Policy (TF); Technology Policy (TP); Government Policy (GP); Ability (AB); Motivation (MO) Absorptive Capacity (AC); International Intra-firm Technology Transfer (TT); Organizational Sustainability Performance (OS); Standard Deviation (SD); Cronbach's Alpha (CA); Dillon-Goldstein's rho (DG rho); Composite Reliability (CR); Average Variance Extracted (AVE); Variance Inflation Factors (VIF).

Source: Authors' data analysis

4. Data analysis results

4.1. Descriptive analysis

For this study, quantitative data was collected from 252 foreign-based MNC-subsidiaries in Malaysia mostly belonging to North American parent companies (34.9 %), followed by European parent companies (33.7%), and Asian parent companies (29%). Concerning the industry type, data showed that most subsidiaries belonged to the electrical and electronics industry (15.1%), followed by the clothing and consumer goods industry (10.7%), automotive (9.5%), and technologies and IT industry (3.2%), among others. Furthermore, data showed that most of the subsidiaries employed 101 to 200 employees (34.5%), with 30.6% (the highest) subsidiaries employing 101 to 200 Malaysian citizens, followed by 25%, 10.7%, 10.3%, 7.5%, 7.1%, 5.2%, and 2.4% subsidiaries employing 1 to 100, 501 to 1000, 201 to 300, 1001 to 2000, 301 to 500, 2001 to 5000, and 5001 to 10,000 Malaysians citizens, respectively. Finally, it was reported that 43.3% subsidiaries were established in Malaysia for more than 30 years. The subsidiaries that were established in Malaysia between 21 and 30 years made up for 18.7%, followed by 11.5%, 10.7%, 8.7%, and 7.1% subsidiaries that were established between 16 and 20 years, 6-10 years, 11 and 15 years, and 2-5 years, respectively.

4.2. Reliability and validity

The Cronbach's alpha (CA) values for market dynamism, competitive intensity, market environment, national cultural distance, organizational cultural distance, cultural distance, trade policy, technology policy, government policy, ability, motivation, absorptive capacity, international intra-firm technology transfer, and organizational sustainability performance were all found to be more than 0.7 (see Table 1), indicating all items to be reliable (Hair et al., 2013). For DG *rho* and composite reliability (CR), the values for all indicators are also found to be more than 0.7 (see Table 1), further confirming the items' reliability. To test for multicollinearity issue, this study also checked the variance inflation factors (VIF). The VIF values for all variables are below 2.5 (see Table 1), indicating the absence of multicollinearity issues (c.f. Diamantopoulos and Siguaw, 2006).

In terms of validity, the average variance extracted (AVE) value for all items is found to be more than 0.5, indicating sufficient convergent validity (Hair et al., 2011) (see Table 1). Moreover, the cross-loading values, as observed in Table 2 are below the outer loadings, which suggest adequate discriminant validity. As shown in Table 3, The Fornell-Larcker criterion, assessing the discriminant validity at the

Table 2
Cross loading and outer loading.

Item Code	MD	CI	ME	NC	ОС	CD	TF	TP	GP	AB	MO	AC	TT	os
S2A1	0.852	0.538	0.768	0.363	0.330	0.374	0.333	0.298	0.346	0.284	0.347	0.350	0.370	0.433
S2A1	0.852	0.538	0.768	0.363	0.330	0.374	0.333	0.298	0.346	0.284	0.347	0.350	0.370	0.433
S2A2	0.864	0.519	0.766	0.413	0.359	0.416	0.365	0.374	0.402	0.279	0.383	0.372	0.398	0.413
S2A2	0.864	0.519	0.766	0.413	0.359	0.416	0.365	0.374	0.402	0.279	0.383	0.372	0.398	0.413
S2A3	0.851	0.615	0.808	0.428	0.332	0.405	0.314	0.295	0.333	0.239	0.337	0.326	0.415	0.469
S2A3	0.851	0.615	0.808	0.428	0.332	0.405	0.314	0.295	0.333	0.239	0.337	0.326	0.415	0.469
S2A4	0.866	0.635	0.827	0.432	0.363	0.427	0.356	0.308	0.365	0.311	0.399	0.396	0.434	0.462
S2A4	0.866	0.635	0.827	0.432	0.363	0.427	0.356	0.308	0.365	0.311	0.399	0.396	0.434	0.462
S2B1	0.688	0.817	0.818	0.553	0.405	0.508	0.379	0.361	0.405	0.307	0.347	0.361	0.394	0.448
S2B1	0.688	0.817	0.818	0.553	0.405	0.508	0.379	0.361	0.405	0.307	0.347	0.361	0.394	0.448
S2B2	0.497	0.810	0.706	0.434	0.306	0.391	0.275	0.272	0.298	0.266	0.311	0.318	0.394	0.427
S2B2	0.497	0.810	0.706	0.434	0.306	0.391	0.275	0.272	0.298	0.266	0.311	0.318	0.394	0.427
S2B3 S2B3	0.495 0.495	0.825 0.825	0.712 0.712	0.512 0.512	0.406 0.406	0.490 0.490	0.385 0.385	0.348 0.348	0.402 0.402	0.277 0.277	0.336 0.336	0.339 0.339	0.360 0.360	0.408 0.408
S2B3	0.493	0.823	0.712	0.512	0.446	0.490	0.363	0.348	0.453	0.277	0.368	0.368	0.300	0.408
S2B4	0.508	0.823	0.719	0.596	0.446	0.554	0.450	0.371	0.453	0.293	0.368	0.368	0.405	0.451
S2C1	0.450	0.604	0.572	0.809	0.530	0.705	0.432	0.384	0.448	0.284	0.317	0.330	0.394	0.406
S2C1	0.450	0.604	0.572	0.809	0.530	0.705	0.432	0.384	0.448	0.284	0.317	0.330	0.394	0.406
S2C2	0.368	0.509	0.475	0.909	0.594	0.788	0.427	0.382	0.444	0.290	0.345	0.351	0.360	0.371
S2C2	0.368	0.509	0.475	0.909	0.594	0.788	0.427	0.382	0.444	0.290	0.345	0.351	0.360	0.371
S2C3	0.433	0.567	0.542	0.889	0.644	0.811	0.438	0.350	0.436	0.238	0.335	0.323	0.388	0.402
S2C3	0.433	0.567	0.542	0.889	0.644	0.811	0.438	0.350	0.436	0.238	0.335	0.323	0.388	0.402
S2D1	0.360	0.407	0.418	0.628	0.826	0.809	0.513	0.387	0.500	0.253	0.347	0.338	0.372	0.394
S2D1	0.360	0.407	0.418	0.628	0.826	0.809	0.513	0.387	0.500	0.253	0.347	0.338	0.372	0.394
S2D2	0.303	0.412	0.387	0.590	0.884	0.829	0.515	0.365	0.491	0.299	0.334	0.348	0.408	0.409
S2D2	0.303	0.412	0.387	0.590	0.884	0.829	0.515	0.365	0.491	0.299	0.334	0.348	0.408	0.409
S2D3	0.383	0.424	0.440	0.551	0.873	0.805	0.537	0.442	0.540	0.359	0.403	0.418	0.424	0.447
S2D3	0.383	0.424	0.440	0.551	0.873	0.805	0.537	0.442	0.540	0.359	0.403	0.418	0.424	0.447
S2D4	0.350	0.409	0.413	0.579	0.873	0.818	0.578	0.438	0.564	0.343	0.402	0.410	0.417	0.417
S2D4	0.350	0.409	0.413	0.579	0.873	0.818	0.578	0.438	0.564	0.343	0.402	0.410	0.417	0.417 0.402
S2E1 S2E1	0.332 0.332	0.398 0.398	0.397 0.397	0.495 0.495	0.658 0.658	0.643 0.643	0.756 0.756	0.537 0.537	0.722 0.722	0.375 0.375	0.426 0.426	0.440 0.440	0.447 0.447	0.402
S2E1	0.332	0.364	0.367	0.493	0.038	0.470	0.730	0.572	0.722	0.373	0.420	0.453	0.447	0.503
S2E2	0.311	0.364	0.367	0.371	0.474	0.470	0.880	0.572	0.813	0.404	0.431	0.453	0.457	0.503
S2E3	0.350	0.395	0.405	0.431	0.501	0.514	0.895	0.569	0.820	0.395	0.425	0.447	0.465	0.521
S2E3	0.350	0.395	0.405	0.431	0.501	0.514	0.895	0.569	0.820	0.395	0.425	0.447	0.465	0.521
S2E4	0.368	0.399	0.418	0.405	0.499	0.501	0.874	0.647	0.842	0.442	0.445	0.479	0.394	0.461
S2E4	0.368	0.399	0.418	0.405	0.499	0.501	0.874	0.647	0.842	0.442	0.445	0.479	0.394	0.461
S2F1	0.379	0.384	0.416	0.386	0.420	0.442	0.662	0.863	0.815	0.532	0.533	0.574	0.469	0.468
S2F1	0.379	0.384	0.416	0.386	0.420	0.442	0.662	0.863	0.815	0.532	0.533	0.574	0.469	0.468
S2F2	0.306	0.357	0.360	0.354	0.406	0.418	0.568	0.900	0.775	0.623	0.585	0.647	0.459	0.446
S2F2	0.306	0.357	0.360	0.354	0.406	0.418	0.568	0.900	0.775	0.623	0.585	0.647	0.459	0.446
S2F3	0.290	0.349	0.347	0.382	0.417	0.439	0.565	0.870	0.759	0.636	0.535	0.618	0.453	0.464
S2F3	0.290	0.349	0.347	0.382	0.417	0.439	0.565	0.870	0.759	0.636	0.535	0.618	0.453	0.464
S2G1	0.241	0.308	0.298	0.282	0.322	0.333	0.434	0.652	0.576	0.862	0.579	0.739	0.397	0.411
S2G1	0.241	0.308	0.298	0.282	0.322	0.333	0.434	0.652	0.576	0.862	0.579	0.739	0.397	0.411
S2G2	0.278	0.281	0.305	0.233	0.275	0.280	0.399	0.598	0.528	0.909	0.593	0.768	0.458	0.459
S2G2 S2G3	0.278 0.342	0.281 0.343	0.305 0.374	0.233 0.309	0.275 0.368	0.280 0.374	0.399 0.433	0.598 0.567	0.528 0.534	0.909 0.897	0.593 0.689	0.768 0.829	0.458 0.508	0.459 0.507
S2G3	0.342	0.343	0.374	0.309	0.368	0.374	0.433	0.567	0.534	0.897	0.689	0.829	0.508	0.507
S2H1	0.347	0.352	0.382	0.322	0.323	0.351	0.425	0.534	0.514	0.695	0.811	0.825	0.544	0.478
S2H1	0.347	0.352	0.382	0.322	0.323	0.351	0.425	0.534	0.514	0.695	0.811	0.825	0.544	0.478
S2H2	0.309	0.350	0.359	0.317	0.362	0.374	0.449	0.577	0.549	0.602	0.832	0.800	0.520	0.506
S2H2	0.309	0.350	0.359	0.317	0.362	0.374	0.449	0.577	0.549	0.602	0.832	0.800	0.520	0.506
S2H3	0.303	0.243	0.300	0.224	0.293	0.288	0.396	0.502	0.481	0.563	0.831	0.784	0.496	0.438
S2H3	0.303	0.243	0.300	0.224	0.293	0.288	0.396	0.502	0.481	0.563	0.831	0.784	0.496	0.438
S2H4	0.348	0.362	0.387	0.350	0.364	0.390	0.409	0.449	0.464	0.457	0.771	0.711	0.612	0.468
S2H4	0.348	0.362	0.387	0.350	0.364	0.390	0.409	0.449	0.464	0.457	0.771	0.711	0.612	0.468
S2H5	0.440	0.394	0.457	0.348	0.412	0.420	0.383	0.491	0.468	0.520	0.831	0.775	0.659	0.536
S2H5	0.440	0.394	0.457	0.348	0.412	0.420	0.383	0.491	0.468	0.520	0.831	0.775	0.659	0.536
S2I1	0.363	0.306	0.367	0.291	0.271	0.304	0.377	0.409	0.426	0.403	0.546	0.534	0.711	0.505
S2I2	0.386	0.362	0.410	0.369	0.402	0.423	0.452	0.471	0.502	0.414	0.551	0.541	0.779	0.592
S2I3	0.415	0.443	0.468	0.359	0.414	0.426	0.439	0.427	0.473	0.407	0.513	0.513	0.804	0.590
S2I4	0.322	0.368	0.376	0.325	0.331	0.358	0.391	0.371	0.416	0.410	0.533	0.527	0.774	0.529
S2I5	0.363	0.378	0.405	0.386	0.382	0.418	0.335	0.346	0.371	0.358	0.543	0.513	0.796	0.516
S2I6	0.356	0.278	0.349	0.305	0.341	0.355	0.352	0.370	0.392	0.367	0.512	0.494	0.740	0.505
S2I7	0.364	0.390	0.411	0.349	0.381	0.400	0.443	0.442	0.482	0.401	0.531	0.521	0.768	0.578
S2I8	0.277	0.287	0.308	0.258	0.322	0.322	0.332	0.351	0.371	0.369	0.453	0.456	0.701	0.558
S2I9	0.364	0.402	0.418	0.324	0.342	0.365	0.377	0.379	0.412	0.369	0.534	0.512	0.741	0.632
S3A1 S3A2	0.436 0.362	0.453 0.389	0.485	0.372 0.397	0.410	0.429 0.447	0.439 0.415	0.431 0.404	0.474 0.447	0.448 0.395	0.555 0.457	0.556	0.683 0.605	0.800 0.727
S3A2 S3A3	0.362	0.389	0.409 0.416	0.397	0.421 0.334	0.447	0.415	0.404	0.447	0.395	0.457	0.469 0.423	0.505	0.727
	0.369	0.364	0.410	0.361	0.359	0.392	0.437	0.414	0.447	0.392	0.407	0.425	0.534	0.721
S3A4														

(continued on next page)

Table 2 (continued)

Item Code	MD	CI	ME	NC	OC	CD	TF	TP	GP	AB	MO	AC	TT	os
S3A6	0.325	0.346	0.366	0.325	0.351	0.371	0.385	0.369	0.412	0.347	0.369	0.390	0.462	0.723
S3A7	0.380	0.414	0.433	0.344	0.375	0.394	0.373	0.373	0.406	0.378	0.485	0.480	0.553	0.723
S3A8	0.420	0.436	0.467	0.363	0.418	0.430	0.459	0.394	0.469	0.412	0.485	0.495	0.627	0.813
S3B1	0.400	0.384	0.429	0.320	0.286	0.327	0.422	0.394	0.446	0.387	0.476	0.478	0.521	0.732
S3B2	0.390	0.375	0.419	0.293	0.293	0.319	0.394	0.395	0.429	0.372	0.429	0.439	0.493	0.749
S3B3	0.416	0.398	0.446	0.326	0.303	0.341	0.403	0.374	0.425	0.389	0.425	0.444	0.455	0.722

Notes: Market Dynamism (MD); Competitive Intensity (CI); Market Environment (ME); National Cultural Distance (NC); Organizational Cultural Distance (OC); Cultural Distance (CD); Trade Policy (TF); Technology Policy (TP); Government Policy (GP); Ability (AB); Motivation (MO) Absorptive Capacity (AC); International Intra-firm Technology Transfer (TT); Organizational Sustainability Performance (OS).

The bold and italic values in the matrix are the item loadings, and others are cross-loadings.

Source: Author's data analysis

Table 3 Fornell-Larcker criterion.

	MD	CI	NC	OC	TF	TP	AB	MT	TT	os
MD	0.858									
CI	0.674	0.819								
NC	0.477	0.641	0.870							
OC	0.403	0.478	0.679	0.864						
TF	0.399	0.455	0.496	0.620	0.853					
TP	0.371	0.414	0.426	0.472	0.683	0.878				
AC	0.325	0.35	0.31	0.363	0.474	0.679	0.890			
MT	0.428	0.416	0.382	0.429	0.506	0.628	0.700	0.816		
TT	0.472	0.475	0.436	0.469	0.515	0.525	0.513	0.692	0.758	
OS	0.519	0.53	0.451	0.482	0.555	0.524	0.518	0.595	0.736	0.739

Notes: Market Dynamism (MD); Competitive Intensity (CI); National Cultural Distance (NC); Organizational Cultural Distance (OC); Trade Policy (TF); Technology Policy (TP); Ability (AB); Motivation (MO); International Intra-firm Technology Transfer (TT); Organizational Sustainability Performance (OS).

Source: Author's data analysis

construct level (Hair et al., 2013), was also unable to detect any lack of discriminant validity in the constructs of the study. Additionally, the Heterotrait-Monotrait Ratio (HTMT), as an estimate of the correlation between constructs, which parallels the disattenuated construct score creation, was used to confirm validity. Using a threshold value of 0.9, this study contends that there is no evidence of the lack of discriminant validity and all the constructs meet the set criteria (see Table 4).

4.3. Hierarchical components model

The hierarchical components model, using the repeated indicators approach, was used to examine the higher order constructs. As this study conceptualized different first-order constructs (dimensions) to determine the second-order constructs, it was expected that each first-order construct will have a positive and significant effect on the respective second-order construct.

As presented in Table 5 (above), the findings indicate that market dynamism and competitive intensity have a significant (p-value <0.05)

Table 5
Hierarchical components model.

	Beta	t-value	CI-Min	CI-Max	Sig.
Market Enviror	ıment				
$\text{MD} \to \text{ME}$	0.575	33.107	0.549	0.606	0.000
$CI \rightarrow ME$	0.517	29.111	0.489	0.545	0.000
Cultural Distan	ce				
$NC \to CD$	0.452	34.745	0.431	0.474	0.000
$OC \rightarrow CD$	0.636	39.166	0.613	0.666	0.000
Government Po	licy				
$TF \to GP$	0.616	41.702	0.594	0.643	0.000
$TP \to GP$	0.472	34.752	0.451	0.495	0.000
Absorptive Cap	acity				
$AB \rightarrow AC$	0.406	30.591	0.385	0.429	0.000
$\text{MT} \to \text{AC}$	0.673	40.317	0.647	0.699	0.000

Notes: Market Dynamism (MD); Competitive Intensity (CI); Market Environment (ME); National Cultural Distance (NC); Organizational Cultural Distance (OC); Cultural Distance (CD); Trade Policy (TF); Technological Policy (TP); Government Policy (GP); Ability (AB); Motivation (MO) Absorptive Capacity (AC). Source: Author's data analysis

Table 4
Heterotrait-Monotrait ratio (HTMT)

could wonoth table (11111).											
MD	CI	NC	OC	TF	TP	AB	MT	TT	os		
0.776											
0.558	0.767										
0.457	0.553	0.786									
0.456	0.533	0.586	0.712								
0.428	0.488	0.506	0.543	0.79							
0.369	0.408	0.364	0.412	0.545	0.793						
0.488	0.487	0.447	0.489	0.58	0.726	0.796					
0.526	0.541	0.501	0.521	0.58	0.595	0.576	0.78				
0.575	0.602	0.512	0.529	0.618	0.59	0.575	0.657	0.795	-		
	MD 0.776 0.558 0.457 0.456 0.428 0.369 0.488 0.526	MD CI 0.776 0.558 0.767 0.457 0.553 0.456 0.533 0.428 0.488 0.369 0.408 0.488 0.487 0.526 0.541	MD CI NC 0.776 0.558 0.767 0.457 0.553 0.786 0.456 0.533 0.586 0.428 0.488 0.506 0.369 0.408 0.364 0.488 0.487 0.447 0.526 0.541 0.501	MD CI NC OC 0.776 0.558 0.767 0.457 0.553 0.786 0.456 0.533 0.586 0.712 0.428 0.488 0.506 0.543 0.369 0.408 0.364 0.412 0.488 0.487 0.447 0.489 0.526 0.541 0.501 0.521	MD CI NC OC TF 0.776 0.558 0.767 0.457 0.553 0.786 0.456 0.533 0.586 0.712 0.428 0.488 0.506 0.543 0.79 0.369 0.408 0.364 0.412 0.545 0.488 0.487 0.447 0.489 0.58 0.526 0.541 0.501 0.521 0.58	MD CI NC OC TF TP 0.776 0.558 0.767 0.457 0.553 0.786 0.456 0.533 0.586 0.712 0.428 0.488 0.506 0.543 0.79 0.369 0.408 0.364 0.412 0.545 0.793 0.488 0.487 0.447 0.489 0.58 0.726 0.526 0.541 0.501 0.521 0.58 0.595	MD CI NC OC TF TP AB 0.776 0.558 0.767 0.457 0.553 0.786 0.456 0.533 0.586 0.712 0.428 0.488 0.506 0.543 0.79 0.369 0.408 0.364 0.412 0.545 0.793 0.488 0.487 0.447 0.489 0.58 0.726 0.796 0.526 0.541 0.501 0.521 0.58 0.595 0.576	MD CI NC OC TF TP AB MT 0.776 0.558 0.767 0.457 0.553 0.786 0.456 0.533 0.586 0.712 0.428 0.488 0.506 0.543 0.79 0.369 0.408 0.364 0.412 0.545 0.793 0.488 0.487 0.447 0.489 0.58 0.726 0.796 0.526 0.541 0.501 0.521 0.58 0.595 0.576 0.78	MD CI NC OC TF TP AB MT TT 0.776 0.558 0.767 0.457 0.553 0.786 0.456 0.533 0.586 0.712 0.428 0.488 0.506 0.543 0.79 0.369 0.408 0.364 0.412 0.545 0.793 0.488 0.487 0.447 0.489 0.58 0.726 0.796 0.526 0.541 0.501 0.521 0.58 0.595 0.576 0.78		

Notes: Market Dynamism (MD); Competitive Intensity (CI); National Cultural Distance (NC); Organizational Cultural Distance (OC); Trade Policy (TF); Technology Policy (TP); Ability (AB); Motivation (MO); International Intra-firm Technology Transfer (TT); Organizational Sustainability Performance (OS).

Source: Author's data analysis

positive effect on the market environment of the foreign-based MNCs in Malaysia. Among the two, market dynamism is found to have a slightly higher effect on market environment, as represented by its higher beta value. Concerning the cultural distance, Table 5 indicates that both national cultural distance and organizational cultural distance have a significant positive effect on the cultural distance. Among the two dimensions, organizational cultural distance is found to have a higher effect on cultural distance, as represented by its higher beta value.

Table 5 further reveals that trade policies and technological policies have a significant positive effect on the government policies. Among the two, trade policies are found to have a higher effect on government policies, as represented by their higher beta value. Finally, concerning absorptive capacity, it is found that both ability and motivation significantly and positively affect the absorptive capacity. As observed in Table 5, motivation has a higher beta value than ability, thereby indicating that it has a higher effect on absorptive capacity than the other dimension.

4.4. Path coefficients

As portrayed in Table 6 below, path coefficients of the market environment have been found to have a positive and statistically significant effect on the intra-firm technology transfer (at the chosen 5% level of significance). Cultural distance has also been found to have a positive and statistically significant effect on intra-firm technology transfer. Concerning absorptive capacity, Table 6 depicts a positive statistically significant effect of the absorptive capacity on the intra-firm technology transfer. However, according to Table 6, government policies are found to have a positive but not statistically significant effect on the intra-firm technology transfer. Furthermore, intra-firm technology transfer is also found to have a positive and statistically significant effect on organizational sustainability performance across the sample of the study.

Concerning the effect sizes (f^2) , the observations in Table 6 imply that market environment has a small effect (size) on the intra-firm technology transfer. Cultural distance has zero to weak effect on intra-firm technology transfer, while government policy has nearly zero effect on the intra-firm technology transfer. Finally absorptive capacity is found to have a moderate to large effect on the intra-firm technology transfer. The intra-firm technology transfer is found to have a substantial effect on the organizational sustainability performance. Table 6 further portrays the r^2 and Q^2 values for the intra-firm technology transfer and organizational sustainability performance. Following Hair et al. (2013), we conclude that the r^2 value that explains the variance (52.8 % for intra-firm technology transfer and 54.2 % for organizational sustainability performance) in the dependent variables is considered moderate to strong for this study.

The Q^2 value, assessing the relative predictive relevance of predictor constructs on an endogenous construct value is found to be larger than zero, indicating that the path model's accuracy is acceptable (Hair et al.,

2013). Finally, for the mediating effect of intra-firm technology transfer, this study found an indirect significant effect of market environment, cultural distance, and absorptive capacity on organizational sustainability performance (p-value <0.05), thereby indicating a significant mediation of intra-firm technology transfer across the sample of the study.

5. Discussion

Apart from confirming reliability and validity of the used indicators, the findings of the study established that the deployed dimensions (first-order constructs) of the reflective-hierarchical model can significantly and positively predict their respective independent variables (second-order constructs). This study further revealed that market environment has a positive and significant effect on the intra-firm technology transfer (H1). The findings seem to agree with existing literature supporting the view that turbulence within a business environment renders organizational knowledge, which in turn is believed to facilitate the development of sustainable competitive advantage (Lyles and Salk, 1996; Tsai, 2001; Zahra et al., 2000).

Second, cultural distance is also found to have a positive and significant effect on the intra-firm technology transfer (H2), implying that cultural similarities between the home and host countries facilitate the diffusion and adoption of innovative technologies between the foreign parent companies and their subsidiaries. This finding supports the study by Cui et al. (2006), portraying the significance of culture in the context of international technology transfer. Third, absorptive capacity is also found to have a positive and significant effect on the intra-firm technology transfer (H4). This finding is in line with existing literature advocating that dynamic MNCs' local employees who possess relevant knowledge act as crucial linkages for technology transfer processes and help their organizations to upgrade their functions and specialize in higher value-added operations (Rasiah, 2002; Hooi, 2010; Minbaeva et al., 2003).

Concerning government policies, despite a positive influence identified among the respondents, this study is unable to confirm any significant effect of trade and technology policy on intra-firm technology transfer across the sample (H3). Finally, intra-firm technology transfer is found to have a positive and significant effect on the organizational sustainability performance of the subsidiaries of foreign multinational corporations (H5). This indicates that the findings of the present study are in line with the RBV, advocating those innovative technologies form valuable and unique capabilities that are crucial for superior sustainability performance (Barney, 2001; Hart, 1995). Additionally, findings concerning the mediating effect of intra-firm technology transfer on the relationships of market environment, cultural factors, and absorptive capacity with organizational sustainability performance are found to be statistically significant (H6). In line with Desarbo et al. (2005), this finding indicates that in a dynamic external environment, the diffusion

Table 6Path coefficient.

Hypo		Beta	CI-Min	CI-Max	Sig.	Decision	r2	Q2	<i>f</i> 2
H ₁	$ME \rightarrow TT$	0.184	0.085	0.282	0.001	Supported			0.044
H_2	$CD \rightarrow TT$	0.118	0.008	0.234	0.042	Supported	0.528	0.262	0.015
H_3	$\text{GP} \to \text{TT}$	0.087	-0.022	0.198	0.102	Not Supported			0.007
H_4	$AC \rightarrow TT$	0.481	0.380	0.565	0.000	Supported			0.265
H_5	$TT \rightarrow OS$	0.736	0.692	0.786	0.000	Supported	0.542	0.253	1.183
Mediatin	Mediating Effect of TT			Beta CI-Mi		Min CI-Max		De	cision
H _{6a}	ME →	TT→OS	0.136		14	0.170	0.001	Me	ediation
H_{6b}	$CD \rightarrow T$	$CD \rightarrow TT \rightarrow OS$		0.087 0.006		0.170	0.043	Me	ediation
H_{6c}	$GP \rightarrow T$	$T \rightarrow OS$	0.064	-0	.016	0.146	0.104	No	t Applicable
H_{6d}	$AC \rightarrow TT \rightarrow OS$		0.354	0.2	79	0.421	0.000	Me	ediation

Notes: ME: Market Environment; CD: Cultural Distance; GP: Government Policy; AC: Absorptive Capacity; TT: International Intra-firm Technology Transfer, OS: Organizational Sustainability Performance, Confidence Interval (CI).

Source: Author's data analysis

and adoption of innovative technologies between MNC headquarters and their subsidiaries take place, which in turn plays a significant role in firm performance. This finding further supports our theoretical preposition (integrating Stakeholder and resource-based view), indicating that inimitable, firm specific, internal technologies, when applied to appropriate market environment and cultural settings could secure sustainable competitive advantages or sustainability (Wernerfelt, 1984; Barney, 2001; Grant, 1991; Hart, 1995).

6. Implications and conclusion

The primary objective of this study was to gain a nuanced understanding of the factors that facilitate superior organizational sustainability performance. Hence, we examined how market environment, cultural factors, government policy, absorptive capacity, and intra-firm technology transfer effect organizational sustainability performance, using MNC-subsidiaries in Malaysia, as a data source. Results revealed that market environment, cultural distance, and absorptive capacity has significant positive effects on technology transfer. Moreover, intra-firm technology transfer positively and significantly influences organizational sustainability performance. Overall findings supported most hypotheses confirming and validating the research model that integrated the stakeholder and resource-based perspective.

This study contributes to the body of knowledge by extending empirical grounds on firm-level sustainability performance, while enhancing current literature connecting organizations and sustainable development. In particular we advocate a shift of measure from firm performance, which solely focuses on shareholders, to organizational sustainability performance, which is inclusive of all stakeholders' interest and therefore crucial for sustainable development. Hence this paper could not only support academics and researchers to measure sustainability performance adopting the environmental, economic, and social dimensions but also allow us better understanding of the influences of stakeholders.

In response to the inconclusive findings, we confirmed market environment, cultural distance, and absorptive capacity as antecedents of technology transfer; simultaneously establishing sustainable organizational performance as a novel consequence of such technology transfer. Theoretically we contribute by forwarding a comprehensive enterprise sustainability model integrating stakeholder theory and RBV, thus advancing the exploration of the drivers of sustainability, which was found limited in existing studies. The empirical results validated the used integrated theoretical underlying, thus extending the scope and applicability of stakeholder and resource-based perspectives.

As for practical implications, the findings can guide the Government of Malaysia to formulate policies that would create a competitive market by focusing on customer preferences, technological advancements, and competitors' structure. Moreover, policies and programs to educate citizens and empower them with the relevant knowledge, skills, and cultural awareness should also be the focus of the Malaysian government. The effective application of such policies can enhance technological inflows, following foreign investments, which in turn could improve sustainability performance of MNC-subsidiaries. For MNCs, this study reveals the focus areas to consider, while transferring technology to host-nations. Our findings could support MNCs to decide on appropriate technologies that suit specific host countries, which in turn could improve the sustainability performance of their subsidiaries worldwide.

The insights from this paper will be beneficial for professionals to measure and continuously improve the sustainability performance of respective organizations by integrating the highlighted environmental, economic, and social dimensions. This research helps managers to acknowledge the growing importance to consider expectations and perceptions of stakeholders This study can further induce managers at the MNCs to think about sustainability by underlining the need for improved collaboration and coordination between the subsidiary and their head-quarters. It is recommended that MNC-managers could specifically work on strategies to improve the ability and motivation of their local

workforce to enhance technology transfer adoption and sustainability performance. Importantly, the study also highlights that firms operate within larger natural and social boundaries, which in this case is a host country, and a true picture of sustainability performance cannot be constructed by ignoring the characteristics of such external context.

Concerning limitations, it is acknowledged that this study used only one host country as a data source, which could limit the generalizability of its findings. Moreover, this study could not accommodate all the characteristics of the host nation in its model, which might have affected the findings. Finally for future researchers, we recommend that they should apply the presented model to different host countries to extend its applicability or irrelevance. Moreover, future researchers can also integrate relevant new constructs and incorporate them into the present model to enhance the current understanding on the "sustainable enterprise."

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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