The elusive Malayan tiger ‘captured’: A systematic review of research on educational leadership and management in Malaysia

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Abstract
Substantial progress has been made in the knowledge base of educational leadership and management (EDLM) in societies across the world. However, the evidence base in developing countries such as Malaysia remains limited. Thus, this article reports the results of a systematic review of research on EDLM in Malaysia. The review aimed at describing key features of the Malaysian knowledge base in EDLM with respect to publication volume, journal outlets, types of papers published, distribution of knowledge production across its states and key scholars, and the composition of research topics, methods, and maturity of its knowledge production. The review database encompassed 328 journal articles in English and Malay language published on EDLM in Malaysia. Systematic methods were applied in the identification of sources and data extraction from the journal articles. Data analysis relied primarily on quantitative methods for data interpretation to reveal the variability in patterns of knowledge production in Malaysia EDLM. The review found that the Malaysian literature in EDLM is largely contemporary; however, it is an ‘immature but emerging literature’ which bears similarities to literatures in other developing societies in Asia. Recommendations are made for topics, methods and other areas where capacity development is warranted.

Keywords
Systematic review, leadership, management, Malaysia

Introduction
Substantial progress has been made in the global knowledge base of educational leadership and management (EDLM) with the evidential growth of systematic reviews of research published in
the ensuing decades (Bridges, 1982; Hallinger, 2011; Hallinger and Bryant, 2013; Hallinger and Heck, 1996; Leithwood et al., 2006). However, EDLM scholars have expressed concern that the current knowledge base is predominantly based on English-speaking Western societies (Bajunid 1996; Clarke and O’Donoghue, 2017; Gümuş¸ et al., 2020). Indeed, analyses of the EDLM literature have found that it is dominated by Western and Anglo-American societies (see Hallinger, 2016; Hallinger and Bryant, 2013; Mertkan et al., 2016).

With respect to this concern, Hallinger and Bryant (2013) highlighted that there is urgent need to have nationally based systematic reviews of EDLM research aligned with the need to develop regionally grounded, empirically informed knowledge about the practice of EDLM in other regions of the world. Consequently, the volume of EDLM research has risen exponentially in developing societies over the past 10 years (Hallinger, 2017; Hallinger and Bryant, 2013; Hallinger and Chen, 2015; Oplatka and Arar, 2017) with EDLM reviews conducted in non-Western societies such as Africa (Hallinger, 2017), Arab countries (Hammad and Hallinger, 2017), South Africa (Hallinger, 2019), and Turkey (Gümuş¸ et al., 2020).

However, within Asia, the evidence base on EDLM in developing countries such as Malaysia remains ‘elusive’. Hallinger and Chen’s (2015) review of the EDLM literature in Asia called for an urgent need to conduct systematic reviews in Malaysia, where there may be a substantial number of research papers written in its indigenous language. Subsequently, recent EDLM reviews in Malaysia by Hallinger et al. (2018) assessed the conceptual models, research methods, and foci of scholars in the study of principal instructional leadership in Malaysia over the past 30 years. Additionally, Harris et al. (2019) assess the recent knowledge base on instructional leadership in Malaysia. Although Bush et al. (2018) conducted a systematic review of the Malaysian literature, this was limited to three prominent leadership models (instructional, distributed and transformational). The recognition of this literature gap has prompted the current study to conduct a topographical review of research on EDLM in Malaysia. This study aimed at describing key features of the Malaysian knowledge base in EDLM and addressed the following research questions:

1. How has the Malaysian EDLM literature evolved over time with respect to publication?
2. Volume, journal outlets, and types of papers published?
3. How is the Malaysian EDLM knowledge production distributed across its states and who are its key scholars?
4. What is the composition of the Malaysian EDLM literature when analysed by research topics, methods, and maturity of its knowledge production?

**Methods**

This study used a topographical review to illuminate patterns of knowledge production in terms of the range of topics, conceptual model and research methods similar to other systematic reviews of research (see Hallinger, 2017; Hallinger, 2013; Hallinger and Bryant, 2013). This topographical review offers guidance to Malaysian EDLM scholars on directions for future research and identification of areas where capacity development is needed in future studies (Bridges, 1982; Hallinger, 2017).

**Identification of sources**

We conducted our search guided by the ‘Preferred Reporting Items for Systematic Reviews and Meta-Analyses’ (PRISMA) (Moher et al., 2009). The PRISMA communicates the procedure we
used in identifying sources for our review (see Figure 1). In this review, we employed a two-stage search strategy. In the first stage, Google Scholar™ was used as the search engine to identify relevant Malaysian EDLM studies for this review. Google scholar™ is greatly superior in the areas of social sciences and humanities, where SCOPUS or the Web of Science have a poor coverage, and compared with other open-access databases such as ProQuest™, it performs the best (Martin-Martin et al., 2018). In addition, Google Scholar™ contains Malaysian EDLM articles in Malay language, which is crucial in this review study.

The study has decided to focus on Malaysian EDLM journal articles regardless of source type or date of publication due to the fact that publication on Malaysian EDLM is moderate in size (Hallinger et al., 2018). One set of main search terms was employed with variation for English-language EDLM publication in Malaysia. The key search terms included ‘school’, ‘principal’, ‘leadership’, ‘management’ and ‘Malaysia’. For the Malay language EDLM literature, a set of key search terms in Malay language was applied: ‘sekolah’, ‘pengetua’, ‘kepemimpinan’,
Overall, the search yielded a database of 998 English sources and 630 Malay sources. Many scholars have reiterated reviews that focused solely on published journal articles meet a more consistent quality standard (Hallinger, 2013; Hallinger and Bryant, 2013). Thus, we filtered the dataset to only journal articles, thereby reducing the size of the dataset to 278 journal articles in English language and 158 articles in Malay language. However, upon closer examination and review of the journal sources, 28 journal articles were discarded due to lack of fit with the scope of our study. We focused only on articles related to school leadership, management, system-level educational policies, organisational behaviour and educational supervision. We excluded articles that were primarily focused on higher education and on other disciplines, such as early childhood education and ICT education. We also excluded 80 journal articles which were part of the predatory journal blacklists (Beall, 2014), leaving 294 articles as the database for analysis in stage one. Additional analysis revealed that these 294 articles were widely dispersed across 81 different journals. Journals published in Malaysia accounted for 40 of the 81 different journals (not tabled). Analysing the distribution of journal articles across different journals indicates Malaysian EDLM journals represented about half of the ‘publication venues’ for Malaysian EDLM studies (see Table 1).

We then moved to stage two of our search. We searched in several well-known ‘core international EDLM journals’ (e.g. Hallinger, 2017; Hallinger and Bryant 2013; Oplatka and Arar, 2017) such as Journal of Educational Administration, Educational Management Administration and Leadership, International Journal of Educational Management, International Journal of Leadership in Education, School Leadership and Management, International Studies in Educational Administration, School Effectiveness and School Improvement, Educational Administration Quarterly, Leadership and Policy in Schools and Journal of School Leadership.

These journals all publish in English, employ a double-blind review process and crucially specialise in EDLM research. However, there were a limited number of publications in these well-known international EDLM journals. The search yielded 34 articles that had been published as of December 2019. There was no publication in Educational Administration Quarterly, Leadership and Policy in Schools and Journal of School Leadership (see Table 2).

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Table 1. Distribution of journal articles from Malaysia across journals.

<table>
<thead>
<tr>
<th>Journal</th>
<th>Type</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jurnal Pengurusan Dan Kepimpinan Pendidikan</td>
<td>EDLM</td>
<td>65</td>
</tr>
<tr>
<td>Jurnal Kepimpinan Pendidikan</td>
<td>EDLM</td>
<td>40</td>
</tr>
<tr>
<td>Educational Leader (Pemimpin Pendidikan)</td>
<td>EDLM</td>
<td>33</td>
</tr>
<tr>
<td>Malaysian Online Journal of Educational Management</td>
<td>EDLM</td>
<td>15</td>
</tr>
<tr>
<td>International Online Journal of Educational Leadership</td>
<td>EDLM</td>
<td>12</td>
</tr>
<tr>
<td>Jurnal Pendidikan Malaysia</td>
<td>Gen Ed</td>
<td>8</td>
</tr>
<tr>
<td>Malaysian Journal of Social Sciences and Humanities</td>
<td>Soc Sci</td>
<td>7</td>
</tr>
<tr>
<td>Malaysian Journal of Learning and Instruction</td>
<td>Gen Ed</td>
<td>6</td>
</tr>
<tr>
<td>Management Research Journal</td>
<td>Gen Mgmt</td>
<td>5</td>
</tr>
<tr>
<td>Pertanika Journal of Social Sciences &amp; Humanities</td>
<td>Soc Sci</td>
<td>5</td>
</tr>
</tbody>
</table>

*Note: Only journals that have published more than five articles are included in the table.
Data extraction

Data extracted from stage one and stage two of our search resulted in a total of 328 articles. These articles were then entered into a Microsoft Excel spreadsheet. Extracted data included the source type, author name(s), article title, journal title, topics, number of citations, year, type of conceptual model (see Hallinger et al., 2018), type of paper (i.e. empirical, conceptual, commentary, review), research method (i.e. qualitative, quantitative, mixed method), statistical tests, and school level (e.g. primary, secondary, multiple levels, district, system). Data were then coded (Gough, 2007) wherever appropriate in order to facilitate subsequent quantitative analysis. For instance, each research method used in the studies was assigned a code (e.g. qualitative = 1, quantitative = 2, mixed methods = 3). The resulting spreadsheet, therefore, represented the ‘dataset’ analysed in this review. In sum, the spreadsheet consisted of 328 rows (i.e. sources) and 16 columns (i.e. categories of information).

Data analysis

This study relied primarily on quantitative methods for data interpretation to reveal the variability in patterns of knowledge production in Malaysia EDLM. With this concern in mind, this study employed descriptive statistics to generate tables and graphs designed to highlight the variability across the studies. Given the topographical nature of this review, the author also sought to benchmark patterns mapped in the Malaysian EDLM literature with comparable features (e.g. range of topics, research methods, etc.) reported in reviews of research conducted in Africa (e.g. Hallinger, 2017), the USA (e.g. Bridges, 1982; Hallinger, 2011; Hallinger and Heck, 1996), Arab societies (Oplatka and Arrar, 2017) and Asia (e.g. Hallinger and Bryant, 2013; Hallinger and Chen, 2015).

Results

The database shows evidence of a surprisingly large English literature on EDLM in Malaysia as compared with the Malay language, which is the official language of Malaysia. Nevertheless, the existence of substantial Malay language literature on EDLM in Malaysia represented a meaningful finding from this review.

Pattern of journal publications

Analysis on the year of publication revealed that the Malaysian EDLM literature has risen dramatically over the years (see Figure 2). Indeed, it is notable that 75% of the articles in the review database were published in the past six years (i.e. since 2014).

Table 2. Distribution of journal articles from Malaysia across core international EDLM journals.

<table>
<thead>
<tr>
<th>Journal</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Management Administration and Leadership</td>
<td>7</td>
</tr>
<tr>
<td>International Journal of Educational Management</td>
<td>10</td>
</tr>
<tr>
<td>Journal of Educational Administration</td>
<td>6</td>
</tr>
<tr>
<td>International Journal of Leadership in Education</td>
<td>2</td>
</tr>
<tr>
<td>School Leadership and Management</td>
<td>3</td>
</tr>
<tr>
<td>International Studies in Educational Administration</td>
<td>4</td>
</tr>
<tr>
<td>School Effectiveness and School Improvement</td>
<td>2</td>
</tr>
</tbody>
</table>
However, it is worth mentioning we found Malaysian EDLM scholars are increasingly publishing in predatory journals, accounting for 80 journal articles since 2008 (see Figure 3), consistent with the trends in other developing countries (Balehegn, 2017). Particularly, the *International Journal of Academic Research in Business and Social Sciences*, *International Journal of Academic Research in Progressive Education and Development* and *International Education Studies*, all listed in the predatory journal blacklists (Beall, 2014), published 26 (33%) out of 80 articles between them. We reiterate all these journal articles and their authors were excluded from further analysis henceforth.

**Key scholars**

The authorship of the Malaysian literature was highly dispersed with a representation of 465 different authors in 328 articles. This included 10 ‘key scholars’, each of whom had authored or co-authored at least 10 journal articles on EDLM in Malaysia (see Figure 4).

It is noteworthy that all the productive scholars listed are from Malaysia and are affiliated with Malaysian institutions.

**Malaysian scholarship**

Additional analysis revealed that Malaysian scholarship is widely dispersed across 91 different journals. These include general education (16%), EDLM (63%), social science (7%), comparative/international education (3%), and general management (2%) journals (see Figure 5). Journals published in Malaysia accounted for 40 of the 91 different journals and 241 of the 328 articles in our Malaysian database (not tabled).

**Knowledge production across states**

Thus far, there is no information on the distribution of knowledge production across the 14 states in Malaysia. Figure 6 highlights the large variation in EDLM knowledge production across...
Malaysian states. The state of Selangor is the centre of knowledge production on EDLM in Malaysia, while several other states and federal territories demonstrated a developing capacity for producing research on EDLM (e.g. Wilayah Persekutuan, Kedah, Perak, Negeri Sembilan, Johor). In contrast, many states have limited (e.g. Kelantan, Penang, Sabah, Pahang, Terengganu, Melaka) or no research (Perlis) on school leadership and management. Findings indicate the research capacity in EDLM is unevenly distributed across Malaysia. This might hold relevance for scholars and policymakers contemplating research capacity and output in Malaysian states.

Figure 3. Pattern of predatory journal publications from Malaysia.

Figure 4. Number of publications of key authors in the Malaysian EDLM literature.
Next, we classified topics of the 328 EDLM literatures according to research topics (see Table 3). It’s worth noting that topics for the studies could be assigned to more than one category. For example, Veeriah et al.’s (2017) study of transformational leadership effects on school culture was assigned to both the transformational leadership and school culture categories.

Figure 5. Malaysian EDLM literature by type of journal.

Figure 6. Distribution of EDLM journal publications in Malaysian states and federal territory.

Research topics

Next, we classified topics of the 328 EDLM literatures according to research topics (see Table 3). It’s worth noting that topics for the studies could be assigned to more than one category. For example, Veeriah et al.’s (2017) study of transformational leadership effects on school culture was assigned to both the transformational leadership and school culture categories.
Data in Table 3 indicates that studies on principals’ leadership style, practices, behaviour, and competencies seem to be the focal point of Malaysian EDLM researchers, with a total number of 51 articles (15.5%), followed closely by studies exploring principals’ instructional leadership (12.8%), transformational leadership (8.8%) and distributed or shared leadership (5.8%). Interestingly, topics focusing on emotions such as teacher job satisfaction, commitment, stress, motivation, and burnout also topped the list of topics studied in the Malaysian EDLM with 56 articles (17.0%). Moreover, when compared with EDLM literature from other developing societies, several topics were given only minimal attention, such as middle leadership, financial management, human resources, and safety management (e.g. Gümuş et al., 2020; Hammad and Hallinger, 2017).

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotions (satisfaction, commitment, stress, motivation, burnout, etc.)</td>
<td>56 (17.0%)</td>
</tr>
<tr>
<td>Leadership (style, practices, behaviour, competencies)</td>
<td>51 (15.5%)</td>
</tr>
<tr>
<td>Instructional leadership</td>
<td>42 (12.8%)</td>
</tr>
<tr>
<td>Transformational leadership</td>
<td>29 (8.8%)</td>
</tr>
<tr>
<td>School effectiveness and improvement</td>
<td>20 (6.1%)</td>
</tr>
<tr>
<td>Managing education quality and performance</td>
<td>20 (6.1%)</td>
</tr>
<tr>
<td>Efficacy (teacher and collective)</td>
<td>20 (6.1%)</td>
</tr>
<tr>
<td>Distributed/shared leadership</td>
<td>19 (5.8%)</td>
</tr>
<tr>
<td>Technology and e-leadership</td>
<td>15 (4.6%)</td>
</tr>
<tr>
<td>Organisational behaviour, climate, culture and health</td>
<td>14 (4.27%)</td>
</tr>
<tr>
<td>Professional learning communities</td>
<td>14 (4.27%)</td>
</tr>
<tr>
<td>Teacher professional development</td>
<td>14 (4.27%)</td>
</tr>
<tr>
<td>Teacher leadership</td>
<td>11 (3.4%)</td>
</tr>
<tr>
<td>Emotional intelligence and competencies</td>
<td>11 (3.4%)</td>
</tr>
<tr>
<td>Strategic leadership</td>
<td>9 (2.7%)</td>
</tr>
<tr>
<td>Leadership values (ethical, moral, servant and authentic)</td>
<td>9 (2.7%)</td>
</tr>
<tr>
<td>Organisational learning</td>
<td>8 (2.44%)</td>
</tr>
<tr>
<td>ICT (usage, integration, competency)</td>
<td>8 (2.4%)</td>
</tr>
<tr>
<td>Islamic leadership</td>
<td>5 (1.5%)</td>
</tr>
<tr>
<td>Decision-making</td>
<td>5 (1.5%)</td>
</tr>
<tr>
<td>Teacher attitude and beliefs</td>
<td>5 (1.5%)</td>
</tr>
<tr>
<td>Student leadership</td>
<td>3 (0.9%)</td>
</tr>
<tr>
<td>Sustainable leadership</td>
<td>3 (0.9%)</td>
</tr>
<tr>
<td>Curriculum leadership</td>
<td>3 (0.9%)</td>
</tr>
<tr>
<td>Creative leadership</td>
<td>2 (0.8%)</td>
</tr>
<tr>
<td>Safety management</td>
<td>2 (0.8%)</td>
</tr>
<tr>
<td>Leadership for learning</td>
<td>2 (0.8%)</td>
</tr>
<tr>
<td>Middle leadership</td>
<td>2 (0.8%)</td>
</tr>
<tr>
<td>Integrated leadership</td>
<td>1 (0.3%)</td>
</tr>
<tr>
<td>Contextual leadership</td>
<td>1 (0.3%)</td>
</tr>
<tr>
<td>Financial management</td>
<td>1 (0.3%)</td>
</tr>
<tr>
<td>Human resources</td>
<td>1 (0.3%)</td>
</tr>
</tbody>
</table>

Note: The percentages for topics add up to more than 100% because studies could be classified according to multiple topics.
**Composition of the literature**

The composition of the literature on EDLM has been a long-term interest to scholars (Bridges, 1982; Hallinger and Chen, 2015). Employing the same methodology of prior reviews, we assigned each of the 328 journal articles to one of three categories of paper: (1) research review papers that address an analysis of a body of studies through systematic reference; (2) empirical data papers in which research was done and analysed in relation to a set of research questions; (3) conceptual and commentary papers which analyse an issue based on selective reference to research findings and personal experience, and propose a theoretical or conceptual contribution. Although all three types of paper contribute towards a growing, mature knowledge base, its distribution provides hindsight on the priorities and concentrations of research within a particular society (Hallinger, 2011; Hallinger and Bryant, 2013).

Hence, 280 articles were identified as empirical studies (85%), 41 as conceptual and commentary papers (13%), and seven (2%) as research reviews. Further probe into the empirical studies revealed 224 studies employed quantitative methods (80%), 39 qualitative methods (14%), and 17 mixed methods (6%). Furthermore, there was a preference for studying leadership and management in secondary schools (179 studies) as compared with primary schools (64 studies). In addition, there were 22 studies conducted in multiple levels (both in primary and secondary schools), 5 district level studies, and another 31 studies were done on the Malaysian education system. Twenty-seven (27) studies did not state a specific level. The preference to conduct studies in secondary schools is consistent with findings reported in other systems (e.g. Gümuş et al., 2020; Hallinger, 2017; Hammad and Hallinger, 2017; Hallinger et al., 2018; Hallinger, 2019).

Next, similar to other reviews of the EDLM literature, a four-level rubric was used to classify the statistical tests used in the 241 quantitative and mixed-methods studies (see Hallinger et al., 2018; Hallinger, 2017; Hallinger and Chen, 2015).

1. Level 1 statistics: descriptive statistics (e.g. mean, standard deviation) accounted for 13%;
2. Level 2 statistics: single causal factor/correlational statistics (e.g. t-test, Pearson’s correlation) accounted for 28%;
3. Level 3 statistics: single causal factor/correlational with controls (e.g. one-way analysis of variance) accounted for 10%;
4. Level 4 statistics: multiple factor and advanced modelling (e.g. discriminant analysis, MANOVA, multiple regression, structural equation modelling, factor analysis) accounted for 49%.

Notably, 41% of the quantitative and mixed-methods studies relied on Level 1 and Level 2 statistical tests as compared with 10% and 49% of studies on Level 3 and 4 statistical tests. Predictably, scholars have identified a tendency for developing societies to adopt a high proportion of univariate and bivariate studies (e.g. Hallinger, 2017; Hallinger and Chen, 2015).

Consistent with the systematic review conducted by Hallinger et al. (2018), the current findings supported that Malaysian scholars have yet to embrace complex multi-variate statistical tests. Furthermore, the dominance of quantitative over qualitative methods among scholars in Malaysia implies an imbalance contribution towards a mature knowledge base in EDLM.
School context

The Malaysian literature on EDLM contains numerous studies that place leadership and management in the institutional, social, cultural, and organizational contexts of schooling. Sensitive to the multi-ethnic character of its population and to provide a variety of curriculum options, Malaysia has national schools, vernacular schools, vocational and technical schools, MARA boarding schools, and religious schools. While these schools are run by the government, there is a growing number of private and international schools to give students a greater degree of mobility. At any stage, students can opt out of the private schools and join the national schools and vice versa.

Most EDLM studies sought to understand how ‘organizational context’ shaped leadership and management practices. These included investigations of leadership in ‘MARA boarding schools’ (e.g. Ghani et al., 2015; Mat Ail and Abdullah, 2016; Omar et al., 2016), ‘religious school’ (e.g. Ab Rasid, Ahmad and Mohd Tahir, 2012; Abdul Wahab et al., 2012; Haji Ahmad and Salamun, 2013), ‘vernacular schools’ (Adams et al., 2018; Lai et al., 2019; Raman et al., 2018), ‘rural schools’ (Othman and Muijs, 2013), ‘vocational and technical schools’ (e.g. Osman, and Kamis, 2019), ‘private schools’ (e.g. Woo, 2014), ‘preschools’ (e.g. Saffardin and Mydin, 2019), ‘international schools’ (e.g. Bailey and Gibson, 2019; Javadi et al., 2017).

The ‘institutional context’ of education frequently explored leadership and management in the context of governance reforms (e.g. Haji Ahmad, 1998), the implementation of school-based management (e.g. Abdul Khalil and Awang, 2016; Hj Ahmad, 2009; Machin, 2014), decentralization of management (Lai et al., 2019), educational accountability (e.g. Mansor and Muhammad, 2018; Ujil and Andin, 2018). A smaller, but still significant number of studies sought to understand how the ‘social context’ of education such as gender, race and equity influence school leadership and management (e.g. Razali, 2018).

These leadership and management studies offer important insights into the institutional, social, and organisational contexts within Malaysia and how school leadership and management differ from developed Western societies. Thus, the synthesis of these studies provides an understanding of EDLM in Malaysia and its position in the global knowledge base.

Personal antecedents

Personal antecedents refer to characteristics of leaders/managers such as gender, administrative experience, and self-efficacy (Bridges 1982; Hallinger 2017). Malaysian scholars have also shown an interest in studying the knowledge/competencies of school leaders (e.g. Ab Rashid, Ahmad and Mohd Tahir, 2012; Abdul Hamid, 2008; Kho, 2017; Raman et al., 2018; Tai and Abdull Kareem, 2016), though less so as compared with the Western literature (Hallinger, 2011). Studies on principals’ and teacher leaders’ gender were not of interest among Malaysian scholars. Only two studies examined female approaches to leadership in Malaysia (Hushin et al., 2008; Mannan et al., 2016), relying on qualitative methods. These studies could benefit from a qualitative research design.

Also encompassed within the Malaysian EDLM literatures on antecedents of leadership and management practice is leadership preparation and development. There were only two studies on leader preparation (Ng, 2017) and professional development (Jusoh and Mahamod, 2018). More studies on leadership preparation and professional development would be timely. Scholars also showed some interest on human resource development (Hj Ahmad, 2009) and school principals’ roles and careers (e.g. Abdullah et al., 2014; Machin, 2014; Woo, 2014).
Leadership and management

According to Bridges (1982), leadership is referred to as a process through which persons seek to bring about change and/or improvement in the organisation by influencing other people or organisational processes. On the other hand, management was defined as processes undertaken by persons holding ‘formal administrative roles’ through which they undertake activities aimed at planning, organising, and controlling organisational structures, policies, and operations (Hammad and Hallinger, 2017).

As indicated in Table 3, the Malaysian literature comprised a significant proportion of leadership studies (87%). Leadership studies adopted a wide range of models including transformational leadership (e.g. Ibrahim et al., 2014; Selamat et al., 2013; Veeriah et al., 2017), instructional leadership (e.g. Abas and Basri, 2019; Harris et al., 2019; Harris et al., 2017; Md Nor et al., 2016), distributed/shared leadership (e.g. Bush and Ng, 2019; Mohd Tahir et al., 2016; Thien and Adams, 2019), technology leadership (e.g. Abdullah et al., 2014; Leong et al., 2016), teacher leadership (e.g. Bush et al., 2016; Don et al., 2016), turnaround leadership (Adams, 2019; Md Nor and Roslan, 2008), Spiritual leadership (Wong, Mahmud, & Omar, 2015), leadership for learning (Adams and Md Yusoff, 2019), strategic leadership (e.g. Mohamad and Ismail, 2018; Mohd Ali, 2012), authentic leadership (Ismail et al., 2019; Saffardin and Mydin, 2019), servant leadership (e.g. Apak et al., 2019), student leadership (e.g. Mohd Nashuha et al., 2019; Tan and Adams, 2018), Islamic leadership (e.g. Haji Ahmad and Salamun, 2013; Mat Ail and Abdullah, 2016), entrepreneurial leadership (e.g. Lope Pihie et al., 2014), contextual leadership (Noman et al., 2018), ethical leadership (Waheed et al., 2019), and moral leadership (Ghani et al., 2015).

As for management studies, only 9% of studies typically examined quality and accountability processes (Abdul Khalil and Awang, 2016; Ismail and Don, 2015), discipline management (Ghani et al., 2014), curriculum management (Awang Besar and Hj Ahmad, 2013; Mohd Hamzah and Ayob, 2015), safety management (Naranasamy and Adams, 2019; Ramachandran and Kenayathulla, 2018), conflict management (Khun-inkeeeree et al., 2019), financial management (Mohd Arus et al., 2018), and human resource management (Hj Ahmad, 2009). The distribution of the Malaysian EDLM studies corroborates with the global literature in EDLM, which has demonstrated a preference on studying leadership in recent years (Mertkan et al., 2016). This review suggests that leadership studies are of interest among Malaysian scholars.

The school organization

In practice, the effects of leadership/management processes (e.g. performance management, teacher evaluation, instructional supervision) can be conceptualised in terms of their relationship with key features of the school organization, such as school climate and culture (e.g. Abdul Rauf et al., 2014; Arivayagan et al., 2019), teacher attitudes such as organizational citizenship, commitment, motivation, and job satisfaction (e.g. Ibrahim et al., 2014; Ismail et al., 2019; Kho, 2017; Selamat et al., 2013) as well as job performance (e.g. Johari et al., 2018; Leong et al., 2016). Further analyses on the research methods used in these studies indicates a predominance of Level 2 statistics, which provides limited contribution towards knowledge-building.

School outcomes

The Malaysian literature on EDLM also contains a few studies that have focused on school performance outcomes such as school effectiveness (e.g. Abdul Wahab, et al., 2012; Othman and
Muijs, 2013), school improvement (e.g. Md Nor et al., 2016), and student achievement (e.g. Abas and Basri, 2019). However, most of these studies used ‘weak quantitative methods’ (e.g. Level 1 and 2 statistics). Hallinger et al. (2018) recommended the use of mediated effects models with more powerful statistical methods to be consistent with the global EDLM literature. Therefore, further capacity development and greater methodological rigour are needed in this domain of studies.

Maturity of knowledge production

Citation analysis offers an understanding on the maturity of knowledge production within a field such as the impact of individual articles and authors within a body of literature (Hallinger and Chen, 2015). As of December 2019, the Malaysian journal literature in EDLM (1995–2019) had a total of 2,118 citations with a mean of 6.46 citations per paper, and a mean rate of 1.56 citations per paper per year. The EDLM literature had only journal articles with at least 50 citations, 57 journal articles with at least 10 citations, and most notably 158 uncited papers. The uncited papers accounted for 66% of the total literatures in Malaysia.

The most highly cited article, with 182 citations, was Ahmad Bajunid’s (1996) conceptual article on Malaysian perspectives of educational management published in the Journal of Educational Administration. Meanwhile articles with the highest level of annual citation (21 cites per year) were two review articles on instructional leadership in Malaysia (Hallinger et al., 2018; Harris et al., 2019). The other most frequently cited papers within this literature included Haji Ahmad (1998; 152 citations), Selamat et al. (2013; 78 citations), and Ibrahim et al. (2014; 75 citations).

Overall, these citation statistics provide an impression that the Malaysian EDLM is an ‘immature but emerging literature’ and not yet fully integrated into the global literature (see Hallinger and Chen, 2015). This might be due to a substantial number of research papers (47%; 155 out of 328 papers) having been written in the Malay language, representing an ‘elusive literature’ that is largely inaccessible to an international audience.

Discussion

This current topographical review of research was undertaken to describe, analyse or synthesise the Malaysian knowledge base in EDLM in recognition of the need to diversify the scholarship in educational leadership and management which comprises the global knowledge base (Hallinger and Bryant, 2013; Hammad and Hallinger, 2017; Oplatka, and Arar, 2017) and in developing societies (Hallinger and Chen 2015; Oplatka and Arar 2017).

This review revealed several important findings. First, it was discovered that the Malaysian literature in EDLM is largely contemporary: 75% of the studies were published in the past six years (i.e. since 2014). These findings are similar to other reported EDLM trends in Asia (Hallinger and Bryant, 2013; Hallinger and Chen, 2015) and highlight the growing knowledge base on Malaysian EDLM literature. The steep increase in the Malaysian EDLM literature since 2014 may be linked to the introduction of the Malaysian education blueprint in 2013, where Malaysia aims to equip every public school with high-performing school leaders who have the leadership capacity to improve student outcomes by the year 2020. This ambition is clearly stated in Shift 5 from the 11 shifts stated in the Malaysian blueprint (MOE, 2012). However, the distribution of knowledge production across Malaysian states was very uneven.
Second, there is an increasing publication trend in predatory journals. Though excluded from this review, the predatory publications accounted for 80 journal articles of the total EDLM literatures in Malaysia. We attribute this publishing trend to most Malaysian universities’ pervasive cultures of ‘publish or perish’. Facing budgetary pressures, few Malaysian universities depend on ranking and prestige to attract research funding. Among the best ways to attract funding is to be highly visible in citation indexed journals (CIJs). Consequently, postgraduate students are required to ‘publish’ in CIJs as part of their requirements to graduate from their master’s or PhD programme.

As for academics, they are under increasing pressure to ‘publish’ in CIJs as part of their yearly key performance index (KPI) and promotions. Otherwise, they might ‘perish’ due to a loss of research funding or their position with the university. The culture of ‘publish or perish’ is clearly pervasive and appears to contribute to a steady increase of publishing in predatory journals. The peer review process in predatory journals is either non-existent or minimal at best. It promises a ‘fast’ review outcome as the author publication fee is the main criteria for publication. Huge profits are made based on the publication fees. Though we excluded all these journal articles and their authors in this review, the integrity of science is at risk and so is the reputation of the authors publishing in predatory journals. However, as long as scholars are threatened by the culture of ‘publish or perish’, the system will remain fundamentally broken.

Third, in our analysis of the Malaysian EDLM literature, we observed most scholars employed ‘Western models’ to guide their empirical studies. These literatures are largely an empirical literature (i.e. 85%), with the majority of the studies employing quantitative methods (i.e. 80%) and little representation of qualitative (i.e. 14%) and mixed methods (i.e. 6%). There is a dominance of quantitative over qualitative methods but only a handful of the Malaysian ‘leadership effects’ studies took advantage of complex multi-variate statistical tests that have become ‘standard’ since the mid-1990s (Hallinger, 2011). In addition, there was a preference for research in secondary as compared with primary schools.

As for the non-empirical studies, we only found a few conceptual/commentary and research reviews papers (i.e. 15%). This calls for increased systematic reviews on several topics, such as instructional leadership, transformational leadership, and distributed leadership. The efficacy of these reviews not only depends on the volume of the literature but also on its conceptual models and methods employed across the studies (Hallinger, 2017). We suggest these features of the EDLM Malaysian literature not only limit its contribution towards a mature knowledge base in EDLM in Malaysia, but also to the global literature in EDLM. Thus, this imbalance should be rectified in the future.

Fourth, while the EDLM literature is predominantly published in Malaysian EDLM journals, publication in internationally widely regarded EDLM journals has been limited. Publications in Malaysian EDLM journals accounted for 81% as compared with publication in international EDLM journals (19%). This implies that Malaysian authors largely publish in Malaysian journals, especially considering the large proportion of the Malaysian EDLM literature are published in Malay language. On the contrary, Malaysian authors must compete with international authors to secure publication in international EDLM journals, a much greater challenge.

A review of the citation analysis suggested a weak impact for the Malaysian literature as whole (i.e. 158 uncited papers, 66%) as well as for individual authors. These is partly attributed to the journal sources published in Malay language (47%; 155 out of 328 papers). This led us to characterise this corpus of Malaysian EDLM studies as an ‘elusive literature’. There is a need for Malaysian authors to collaborate with scholars from outside of the region in designing, carrying out studies and eventually publishing in international EDLM journals.
Conclusion

The recognition of limited systematic review on Malaysian EDLM had prompted the current study to conduct a topographical review of research on EDLM in Malaysia. However, there are several limitations towards this review of the Malaysian EDLM literature. First, the full literature search yielded a database of 998 English sources and 630 Malay sources. However, this review focused solely on journals articles, thereby reducing the size of the dataset to 173 journal articles in English language and 155 articles in Malay language. Thus, this review’s findings may not represent the full Malaysian EDLM literature, especially from unpublished master’s theses and doctoral dissertations. Nonetheless, this review, a reasonable representation of the Malaysian EDLM literature, provides a sound starting point (e.g. topics, methods, authorship, etc.) for identifying future directions for capacity development and developing the Malaysian knowledge base.

Second, despite our best efforts to surface ‘all English and Malay-language journal sources on EDLM from Malaysia’, our search does not claim to capture 100% of the literature. Thus, there might be some Malaysian journal publications that were missed in the search process. However, it is unlikely that those ‘missed journal publications’ would radically change the main findings from this review with respect to topics, methods, and impact.

This review seeks to offer guidance to Malaysian EDLM scholars by providing data that can assist scholars in framing directions for future research and identify areas where capacity development is needed in Malaysia. It does not seek to synthesise findings reported in this corpus of studies but provides signposts on future directions for capacity development in EDLM in Malaysia. It is hoped that scholars in Malaysia will now focus on efforts to strengthen and contribute to the development of the Malaysian knowledge base in educational leadership and management in the future.

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