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AN ECOSYSTEMS PERSPECTIVE ON INTERNATIONAL HUMAN RESOURCE DEVELOPMENT (IHRD): A META-SYNTHESIS OF THE LITERATURE

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Abstract:	There has been significant growth of interest in both international human resource development (IHRD) and ecosystems research. Both literatures highlight important characteristics of each concept; however, to date, they have not yet been linked. We propose an ecosystem perspective as an important framework to understand IHRD. Ecosystems emphasize interdependencies, actor centrality, bargaining power and relationships between actors as important in shaping IHRD. We utilize a metasynthesis of the IHRD literature to identify content and process dimensions of an IHRD ecosystem. We conclude with a discussion of implications for IHRD research.

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ABSTRACT

There has been significant growth of interest in both international human resource development (IHRD) and ecosystems research. Both literatures highlight important characteristics of each concept; however, to date, they have not yet been linked. We propose an ecosystem perspective as an important framework to understand IHRD. Ecosystems emphasize interdependencies, actor centrality, bargaining power and relationships between actors as important in shaping IHRD. We utilize a meta-synthesis of the IHRD literature to identify content and process dimensions of an IHRD ecosystem. We conclude with a discussion of implications for IHRD research.

INTRODUCTION

Ecosystems have emerged as a novel approach to depict the competitive environment and explain the roles of actors within areas such as entrepreneurship (Spigel, 2017), strategy (Jacobides, Cennamo & Gawer, 2018) and international career mobility (Baruch, Altman, & Tung, 2016). Jacobides *et al.* (2018) highlight three distinctive approaches to the study of ecosystems: a 'business ecosystem' approach which emphasizes the notion of an ecosystem as 'a community of organizations, institutions and individuals that impact the enterprise and the enterprise's customers and suppliers' (Teece, 2007:1325); 'an innovation ecosystem' which focuses on a particular innovation and the actors that support it, and a 'platform ecosystem' which analyses how actors organize around that platform. These approaches reinforce what Adner (2017) describes as an ecosystems-as-affiliation' approach, where the focus is on interdependencies, network density, actor centrality, bargaining power and relationships between actors to increase the overall value creation of an ecosystem (Autio & Thomas, 2014).

The concept of an IHRD ecosystem is new to the literature; however, we suggest that it has value in understanding the multiplicity of actors that work collaboratively to shape IHRD practices, develop IHRD systems and add value to individuals, organizations, countries, regions and society. In this paper we utilize an ecosystems perspective together with a meta-synthesis of the literature to identify both content and process dimensions of an IHRD ecosystem. The content dimensions focus on identifying actors at different levels within an IHRD ecosystem whereas the process dimensions' focus on how an ecosystem emerges, develops and declines. The utilization of an ecosystem perspective, we suggest, can advance IHRD scholarship in two ways. First, it could help scholars to move away from a universalistic approach where IHRD practices are considered to apply in any context irrespective of actors, countries and regions involved (Farndale, Raghuram, Gully, Liu,

Phillips & Vidović, 2016). Second, it could potentially extend the analysis of IHRD beyond its traditional focus on individuals and organizations to consider meso- and macro-levels of analysis. For the purposes of this paper, we define IHRD using a definition proposed by Wang and McLean (2007) which focuses on the following elements: a) a set of practices designed to enhance the development of human potential at multiple levels of analysis; b) multiple actors who work collaboratively to ensure individual, organization, country and region performance; and c) a set of practices that are relevant to multiple individuals, organizations, countries and regions.

The notion of an IHRD ecosystem is, we suggest, consistent with recent findings on IHRD practices. For example, research highlights the role of national and regional contexts in influencing the types of IHRD practices that are implemented (Kim & McLean, 2012), and in particular the importance of national institutional forces (Garavan, Wang, Matthews-Smith, Nagarathnam, & Lai, 2018), the role of economic systems (McLean, 2017) and the choices of organizational actors (Brewster & Mayrhofer, 2012). Scholars have to date utilised a number of different approaches to understand IHRD including national HRD theory (McLean, 2017), varieties of capitalism theory (Allen, 2014; Hancké, Rhodes & Thatcher, 2007) and more recently, ecosystems theory (Baruch et al., 2016). The ecosystems approach helps our understanding of the way in which IHRD practices are developed, implemented and their outcomes assessed because of its emphasis on four important dimensions: a) the role of shared cultural understandings and institutional environments that normalize particular IHRD practices; b) the importance of social networks and actors within firms, countries and regions that disseminate knowledge about IHRD, c) the role of government, national and regional stakeholders HRD policies that support IHRD and d) the role of firms, employees and workers in shaping IHRD practices.

We acknowledge that an ecosystems approach is best viewed as a conceptual umbrella rather than a coherent theory (Spigel, 2017). For the purposes of this paper we follow Jacobides' et al. (2017) definition of an ecosystem as 'a set of actors with varying degrees of multi-lateral, non-generic complementarities that are not fully hierarchically controlled' (p. 2264). This definition emphasizes that there are vested interests for HRD actors to align with, and act as a coherent ecosystem to achieve value added in terms of HRD. Second, HRD actors play different roles within an ecosystem, so as a consequence the relationship between sets of actors will vary over time. A significant criticism of an ecosystems approach concerns the lack of theory to explain how ecosystems evolve and change (Adner, 2017; Jacobides et al., 2018); therefore, for the purposes of suggesting future research avenues we draw on complex adaptive systems theory. Complex adaptive systems (CAS) theory emphasizes that an ecosystem is "a system composed of a large number of independent single components that locally interact in an independent and nonlinear fashion, exhibit self-organization through interactions that are neither completely random or completely regular and are not influenced by some central or global mechanism, and yield emergent behavior at large scales that is not predictable form observation of the behavior of the components" (Abbott & Hadžikadić, 2017: 1). Therefore, complex adaptive systems theory suggests that IHRD ecosystems will be non-linear, self-organizing and emergent. They will also be adaptive and possess the capacity to change as a result of new knowledge, feedback and experience (Roundy, Brockman & Bradshaw, 2017). This theoretical approach is particularly suitable to understand an IHRD ecosystem because it helps researchers to account for the underlying complexity of an ecosystem and the interdependent nature of diverse factors influencing its operation over time. IHRD from an ecosystem perspective is inherently systemic and complex, therefore CAS provides the foundation for its dynamic conceptualization.

The remainder of the paper is structured as follows. We begin by defining the nature and scope of ecosystems and how it differs from, for example, national business systems theory, varieties of capitalism theory and national HRD theory. We also briefly describe complex adaptive systems theory and its use to understand the complexities of IHRD ecosystems. We then summarize the decisions made to conduct a meta-synthesis of the literature and in the next section we synthesize the process and content dimensions of IHRD ecosystems that emerged from our analysis. The next section draws on our meta-synthesis findings to highlight new insights about IHRD using an ecosystems approach and, informed by complex adaptive systems theory, we discuss avenues for future research. In our conclusion, we highlight our contribution to the literature.

THE ANTECEDENTS, CHARACTERISTICS AND IMPLICATIONS OF ECOSYSTEMS FOR IHRD

We first describe the antecedents and characteristics of ecosystems perspective and this is followed by a brief discussion of their relevance to understanding IHRD. First, in terms of the theoretical antecedents of ecosystems they reside in discussions of industry clusters (Martin & Sunley, 2003) innovation systems (Lundvall, 1985), learning regions (Spigel & Harrison, 2018), national business systems (Whitley, 2007), national HRD (McLean, 2017) and varieties of capitalism theory (Allen, 2014). These theoretical perspectives suggest that it is important to view IHRD as a multilevel construct that comes about as result of the operation and interaction of a multiplicity of actors, institutions and processes, thus lading to heterogeneity in HRD practices in different countries and regions.

Second, the origins of an ecosystems perspective can be traced to scholarly contributions by Muller (1997, 2000) and Kandziora, Burkhard and Müller (2013),

In management and organizational studies ecosystems are defined as 'a system that contains a large number of loosely coupled (interconnected) actors who depend on each other to ensure the overall effectiveness of the system' (Iansiti & Levien, 2004, p.5). Ecosystems are conceptualized as nonlinear, dynamic and ever-changing (Iansiti and Levien, 2004); they have an evolutionary dynamic and significant change occurs within the ecosystem over time (Borissenko & Boschma, 2016). Ecosystems have spatial boundedness (Glückler, 2007) which means that there are multiple IHRD ecosystems and, therefore, IHRD ecosystems are influenced by geography and follow a spatial logic. They may be focused around nations, countries, regions or communities within countries. An ecosystems perspective differs in a number of important ways from the concepts mentioned in the previous paragraph in a number of ways. For example, the varieties of capitalism approach does not give significant emphasis to the firm or organization as an actor with varying degrees of autonomy and it considers firms within any particular country to be homogeneous (Allen, 2014). The national business systems approach places a strong focus on the firm and seeks to analyze the managerial and organizational challenges arising from institutional and competitive characteristics (Lane & Wood, 2012). National business systems are conceptualized as the aggregation of 'organizational and value orientations which characterize both the internal organization of business units and their relationship with the external environment' (Haak-Saheem & Festing, 2018: 3). National HRD systems place emphasis on HRD policies and practices that are unique to a particular country (Garavan et al., 2018). In contrast, an ecosystems perspective places primary emphasis on actors at multiple levels within the ecosystem and their ability to create new HRD practices. These actors include firms, HRD professionals, mentors, consultants, national policy makers, employees, knowledge brokers and other deal makers (Baruch et al., 2016).

Third, IHRD ecosystems therefore come about through a combination of processes whereby actors engage in the development of IHRD policies and practices. These processes are primarily bottom up in that organizations and employees develop IHRD policies and practices which in turn create structures whereby different actors interact with each other to achieve specific IHRD goals. Moore (1996) and Milteton-Kelly (2003) emphasize the interactions between individuals and organizations, interdependence amongst the entities within the system. Scholars have highlighted the important role that bottom-up actors play in bringing order to the interactions of lower level actors and enabling access to resources (Lichtenstein & Mendenhal, 2002; Baruch & Rousseau, 2018). Therefore, in the context of IHRD employees and organizations engage in processes to develop IHRD practices, and in some cases do so in a co-producing way. However, a variety of top-down processes will also operate in an IHRD ecosystem. These will include regulatory organizations, training agencies, government agencies, and supports for HRD and laws that regulate access to HRD. These top down processes may be supportive or the activities of organizations and individuals such as training and education opportunities and the regulation of labor markets.

The advantages of using an ecosystem perspective to understand IHRD lies first in emphasis on multiple levels of analysis and movement of consideration of IHRD at individual and organizational level to consider meso- and macro-levels of analysis. Second, an ecosystems perspective emphasizes the distinct dynamics that operate to produce IHRD policies and practices.

METHOD

We utilised a meta-synthesis approach to conduct our review (Sandelowski & Barroso, 2007). We consider meta-synthesis to be a useful analysis approach because it

allows researchers to synthesis literatures for the purposes of making contributions beyond those achieved in the original theoretical or empirical studies (Hoon, 2013). Meta-synthesis is particularly useful to conduct an analysis of theoretical and qualitative investigations when the aim is to develop a conceptual framework or organize findings using a theoretical perspective such as ecological systems. Both theoretical and qualitative investigations are common among IHRD and ecosystems research. While meta-synthesis emerged as a response to the use of meta-analysis in quantitative investigations, its boundaries have been expanded to include a review of theoretical as well as qualitative studies (Denyer & Transfield, 2009). Hoon (2013) for example, highlights the value of meta-synthesis in helping researchers 'to identify categories and patterns that emerge across the studies, while attempting to preserve the original study's' integrity' (p. 526).

Research Design for Meta-Synthesizing Literature on IHRD

We now describe the steps followed to conduct the meta-synthesis.

Step 1: Framing the Research Question: To frame the research question we studied the existing literature on IHRD and ecosystems. This primarily involved in the first instance identifying a number of seminal publications on IHRD (e.g. Wang & McLean (2007), Metcalfe & Rees (2005), Garavan & Carbery (2012), Anderson, (2015)) and ecosystems (e.g. Baruch *et al.* (2016), Adner (2017), Iansiti & Levien (2004), Spigel (2017), Kandziora *et al.* (2013), Müller (1997; 2000)). We took this approach to develop insights on a) the key features of ecosystems and b) the way in which these ecosystem features are portrayed in the IHRD literature. Based on this initial reading of the literature, we formulated a broad research question that focused on identifying the features of an IHRD ecosystem. We then engaged in a more detailed evaluation of the IHRD and ecosystems literature and broadened the scope of

IHRD literature to include contributions of international training and development (e.g. Modisane, 2018; Anderson, 2017) and literature from the IHRM field that addressed IHRD issues (e.g. Debrah & Rees, 2011; Collings, 2014; Thite, 2013). This more detailed reading of the literature suggested that we should synthesize both content and process dimensions of IHRD ecosystems. Content dimensions highlight the key actors, cultural and institutional features of an ecosystem, whereas the process dimensions' focus on ecosystem emergence, development, change and evolution of ecosystems. We therefore focused the meta-synthesis on identifying the content and process dimensions of an IHRD ecosystem.

Step 2: Searching Relevant Literature: In step 2 we started to bring together the full set of literature that we would then analyze to provide insights on the research question set out in step 1. During our initial framing of the question in step 1, it became apparent that three bodies of literature were relevant to achieving insights as to potential content and process dimensions of an IHRD ecosystem. First, we selected literature that applied the ecosystems concept to areas such as entrepreneurship (e.g. Autio, Nambisan, Thomas, & Wright, 2018; Brown & Mason, 2017) and strategy (Adner, 2017; Jacobides *et al.*, 2018) and international career mobility (e.g. Baruch *et al.*, 2016) which was instructive in identifying potential content and process dimensions of an ecosystem. Second, we reviewed the IHRD literature to identify unique content and process dimensions relevant to an IHRD ecosystem (e.g. Debrah & Rees, 2011; Gubbins & Garavan, 2016; Hancké *et al.*, 2007). Third, we reviewed literature within IHRM that addressed training and development issues in an international context (e.g. Baruch, Dickman, Altman & Bournois, 2013; Bjorkman & Welch, 2015; Chaing, Lemański & Birtch, 2017).

To conduct our search, we utilized the following sources: Social Science Citation Index, Business Source Premier, Scopus, Science Direct, Google Scholar, Sage Full Text

Collection, Econ Lit (PROQUEST) and Wilson Business Full Text electronic databases. This search represents a broad base of potential publications. The inclusion of Google Scholar was particularly useful in generating relevant book chapters. To search these databases we used an initial key word search string "international human resource development" OR "cross-cultural human resource development" OR "comparative human resource development" OR" international training and development" OR "ecosystems" AND "theoretical" AND "empirical". This initial step yielded 501 articles and book chapters that were potentially relevant. We complemented this electronic search with a manual check of reviews of IHRD (e.g. Garavan & Carbery, 2012) and we manually checked HRD journals that received the largest number of hits in the electronic search process. This manual search yielded a further 58 articles that we considered relevant to our meta-synthesis. We made the decision to use 1990 as our starting point given that the literature on IHRD, IHRM and ecosystems is relatively new. Some of the earliest IHRD publications relevant to our review are those by Hansen and Brooks (1994) and Peterson (1997) and Alagaraja and Dooley (2003). Our initial sample of literature therefore consisted of 559 articles and book chapters.

We then proceeded to narrow down the base of literature to be included in the meta-synthesis. We first excluded 110 articles and book chapters that were not focused on IHRD but discussed HRD concepts generally or addressed HRD practices or processes with no reference to an international context. Second, we excluded a further 54 articles that consisted of opinion pieces or editorials. Third, we excluded a further 67 publications because they fell into the category of practitioner papers, chapters or works, or they consisted of industry type publications or grey literature (Adams, Smart & Huff, 2017). Grey literature typically consists of materials and research produced by organizations outside of academia and include working papers, technical reports, while papers, government documents and evaluation reports (Rucinski, 2015). Fourth, we discarded 20 conference papers, unpublished papers,

theses and dissertations; however, we acknowledge the risks involved in relying on published sources due to the possibility of publication bias (Kepes, Banks, McDaniel, & Whetzel, 2012).

Step 3: Inclusion/Exclusion Criteria: The third step in conducting the metasynthesis involved the specification and application of inclusion and exclusion criteria. We defined and applied four inclusion/exclusion criteria. First of all, we only included articles that framed the study of HRD in an international context. Therefore, the article or book chapter had to explicitly address IHRD. Second, in the case of IHRM articles, we only included contributions that specifically addressed IHRD issues related to training, development, workforce development, talent management and education as part of wider IHRM topics. Applying this criterion helped ensure that the boundaries of the literature included in the meta-synthesis were tight and narrow in focus. Third, we included theoretical or qualitative contributions. Fourth, we checked articles and book chapters with regard to quality. We followed the criteria suggested by Hoon (2013) which in the case of empirical investigations highlight the rigor of the reporting of study findings, the strength of the linkage between the theory and empirical findings, clear contextualization of the empirical investigation and clarity of the research question. In the case of book chapters, we also checked whether they were subject to peer review. This we ascertained through checking the introduction to the book to identify details of the review process. An additional 100 articles and book chapters were removed at this step. Our final sample of 208 articles included 55 IHRD and 123 IHRM papers and 30 articles that addressed ecosystems characteristics and they are indicated in the reference list with an * for IHRD specific papers and ** for IHRM and *** for ecosystem papers.

Step 4: Extracting and Coding Data: A major decision in the context of metasynthesis concerns which features of the papers to code. Therefore, the development of a reliable and valid coding form is essential (Kisamore and Brannick, 2008). To develop this coding system we were, in particular, influenced by a number of important contribution that have investigated and theorized ecosystems in other discipline areas. These contributions were: McAdam, Harrison and Leitch (2017) who investigated women's networking in entrepreneurial ecosystems; Spigel (2017) who examined the relational organization of entrepreneurial ecosystems; Baruch *et al.* (2016) who explored the ecosystem of expatriation and repatriation and Thompson, Purdy and Ventresca's (2018) work on the process dimension of entrepreneurial ecosystems. In addition, a seminal paper by Müller (1997) providing a comprehensive review of ecosystem theory which we also used to inform the development of our coding form. Based on these sources, we generated a coding of text and we read through a randomly selected set of 15 papers on IHRD to identify further coding items that might be relevant to our analysis.

We designed the coding form to ensure that there were blank spaces to record additional insights from the analysis. Table 1 summarizes the ecosystems content and process coding categories. Two researchers carefully read independently each article and recorded their results. To address any discrepancies that emerged during the coding process, we carefully documented each area of disagreement and resolved it through a careful reading of the paper and discussion between the coders.

INSERT TABLE 1 HERE

Step 5: Analyzing on an Article-Specific Level. We first analyzed each article or book chapter in terms of the dimensions of an ecosystem relevant to our research question.

This process is important because it helped to differentiate between dimensions. It involved

two researchers who independently developed categorizations for each article. Where disagreements emerged concerning the categorization of dimensions these were discussed and resolved. The analysis at the article level helped us to be more fine-grained in the way we defined each ecosystem dimension and in distinguishing between the content and process dimensions of an IHRD ecosystem.

Step 6; Synthesis on a Cross-Article Level. We then moved to undertake a cross-article level of analysis. In this case, we merged the data from the article-specific analysis to create a set of content and process dimensions that were meaningful across all articles included in the review. Overall, across the articles included in the meta-synthesis. We found that a consistent pattern of content and process dimensions emerged.

Step 7: Building a Conceptual Framework from Meta-Synthesis: Our primary purpose in this paper was to utilize the outputs from the meta-synthesis to develop a conceptual framework depicting the content and process dimensions of an IHRD ecosystem. We define a conceptual framework as an analytical tool to organize concepts and ideas. We suggest a conceptual framework that contains descriptive categories and we organize them into three levels of analysis: macro, meso and micro. At the macro-level, we highlight the institutional and cultural dimensions and actors such as the government who support and regulate HRD in the same manner as other economic and business activities. The meso-level represents a multiplicity of actors and networks and the complexity of these relationships who influence the types of IHRD practices that are developed and implemented. At the micro-level, there is a direct exchange between actors i.e. firms and employees/workers. We discuss these levels and dimensions in detail in the next section.

Step 8: Discussion: Hoon (2013) suggests that is important to discuss the limitations of the studies included in the meta-synthesis and the way in which it was conducted. We were

ultimately constrained by the modest literature that currently exists on IHRD. We did, however, conduct a comprehensive search to ensure that we captured the most high-profile and widely cited publications in the field. We are therefore confident that our findings can contribute to research on IHRD ecosystems.

SYNTHESIS OF FINDINGS

Figure 1 presents the content dimensions that emerged from our meta-synthesis organized by level of analysis. Table 1 reveals a conceptual definition of each content and process dimension and highlight examples found in the literature in addition to significant gaps. Below we present our findings associated with each level of analysis. In addition, we also present our findings on the process components which are not illustrated in Figure 1.

INSERT FIGURE 1 HERE

Content Dimensions of an IHRD Ecosystem

We identify content dimensions of IHRD ecosystems at the macro-, meso- and micro-levels.

Macro-Level Ecosystems Dimensions

Our conceptual framework specifies five macro-level and meta-layer contextual dimensions that emerged from the meta-synthesis.

Cultural Characteristics: A number of scholars have highlighted the importance of national cultural differences as a component of an IHRD ecosystem. These cultural dimensions can be understood in the context of our framework as the underlying beliefs and outlook about HRD within an ecosystem. Studies typically utilize the Hofstede (1980) framework to investigate issues central to IHRD such as cross-cultural competencies, cross-cultural leadership and learning styles (Peterson & Castro, 2006). McLean (2017) is critical of the over-focus on the Hofstede framework and its country level unit of analysis. As a

concept, culture crosses national boundaries and can be significantly impacted by regional influences. Furthermore, within individual countries, there can be significant variations in culture that are not effectively captured using established national country-level culture scales. However, there are some studies that reveal the influence of national culture on IHRD. For example, in lower power distance cultures, informal and self-directed HRD will be enhanced where individuals can make decisions concerning their self-development (Kim & McLean, 2012). Shipper, Hoffman and Rotondo, (2007) found that in strong collectivist cultures, developmental feedback may not be as valued because of the desire to avoid criticism. Ramburuth and McCormick (2001) found that Asian or collectivist cultures tend to show a strong preference for collaborative or group oriented development activities. In strong long-term oriented cultures, there is a strong focus on personal growth, the development of social competence and development for future roles and promotion (Zhu, Valcke, & Schellens, 2009). These findings suggest that collectively shared values help to normalize particular beliefs about HRD making it a standard part of an individual's career or as something that is an exception as well as determining the content and focus of HRD activities.

Formal and Informal Institutions. A number of scholars have highlighted dimensions of formal and informal institutions that influence an IHRD ecosystem (Zhu, Ma, Sauerwald & Peng, 2017). Institutions are "humanly devised constraints" or "the rules of the game in society" (North, 1990, p. 3). Institutions consist of two major categories: formal and informal institutions. Formal institutions represent codified laws, regulations, formal agreements and contracts within a particular country or region. Informal institutions focus on the unwritten or socially shared rules and constraints and include cognitions, beliefs, traditions, customs, sanctions and norms of behavior that are taken for granted (Sartor & Beamish, 2014; North, 2005). Scholars have pointed to a multiplicity of formal institutions

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that are important to an ecosystem. These include labour regulations (Björkman, Smale, Sumelius, Suutari, & Lu, 2008), political institutions (Bonet, Cappelli & Hamori, 2013) and national stakeholder orientations and policy making approaches (Ansah & Ernest, 2013). Examples of informal intuitions that scholars have highlighted include beliefs about how best and over what timeframe to achieve HRD goals (Brooks, Brewster & Wood, 2017), the priority attached to individual versus organisations priorities in the context of development activities (Chiang *et al.*, 2017) and the preferred ways in which development should be undertaken (Cappelli, Singh, Singh & Useem, 2010). Scholars have also highlighted in the context of international training and development and leadership development practices that both formal and informal institutions interact with each other and the informal institutions may strengthen or weaken the formal institutions (Jackson & Deeg, 2008).

Global Talent Availability and Mobility: Numerous scholars have highlighted the availability of mobility of global talent or skilled employees. Scholars highlight different aspects of talent availability that are relevant to an IHRD ecosystem including top management and senior managers (Hassi & Storti, 2011), international assignees (traditional expatriates and inpatriates (Haslberger & Brewster, 2008), self-initiated, short-term, business travelers (Cascio & Boudreau, 2016), those employed by the organization in its home country, local affiliate employees (Evans, Pucik & Björkman, 2011), and those working in cross-border teams (Dokko & Jiang, 2007).

Other dimensions of talent availability highlighted include individuals in local and regional labour markets (Farndale, Scullion & Spparrow, 2010), those employed in partner organisations (Guar, Delios & Singh., 2007), those working in cross-border partnerships (Haak-Saheem & Festing, 2018) and individuals classified as international travelers and those ion short-term assignments.

Talent mobility issues are given a particular high-level of priority amongst scholars particularly the transfer of employees from parent to subsidiary (expatriates) (Collings, 2014) and employees transferring from subsidiary operations to corporate headquarters (Reiche, 2012).

The forms of global mobility will vary and include permanent transfers, international business travelers, rotational assignments involving a significant period in another location and short term assignments. Consistent with Baruch *et al.*'s (2016) notions of talent mobility, we consider this dimension to be central to IHRD ecosystems and involves mobility across organizations, sectors and nations. The research has broadened their focus to encompass self-initiated expatriates or those who relocate to another country for work and life style reasons. Baruch *et al.* (2013) highlight examples including globetrotters, flexpatriation, expatriation, inpatriation, and secondments. In addition, there are cross-border commuters who commute daily for work in another country. An additional component of the talent mobility attribute concerns repatriation which focuses on the return of individuals from a corporate assignment (Tung, 1988). These returning employees bring new knowledge and skill that must be managed and developed by the organization. Scholars also highlight the development issues that arise from talent mobility include organizational training and career interventions, mentoring and coaching process and developing those who which to be perpetual expatriates (Ho, Seet & Jones, 2015).

Government Support for HRD: Scholars highlight the role of policy initiatives and government interventions that are supportive to an IHRD ecosystem. For example, government may create publically funded support programs designed to encourage international organizations and MNCs to train and develop employees through a variety of policy instruments including tax relief, the investment of public funds, and the creation of special training and grant schemes for HRD (Khilji, Tarique & Schuler, 2015). They may

also use training guarantee schemes, financial incentives for investment in management skills and the development of national training standards (Luo, 2006; Mendel, 2006). These standards and certification processes are an example of institutionalized normative and cultural control (Casile & Davis-Blake, 2002).

Various governments and non-governmental organizations increasingly play a role in the development of talent. Kapur and McHale (2005) suggests that official pronouncements on immigration policy are typically couched in terms of national competitiveness and countries such as Australia, Canada, Germany and the USA have implemented policies to attract particular groups of talent to bolster economic development. Khilji *et al.* (2015) highlight the example of Singapore which has implemented creative policies to attract professionals and skilled entrepreneurs from around the globe. In a similar vein, China has put significant efforts into attracting back its diaspora (Zweig, 2006) and other emerging economies have implemented similar policies, such as Mauritius and Pakistan. However, a contrasting situation may prevail where their poor skills formation processes and the state taking a hands-off role in coordinating vocational and technical education and training systems that result in significant skills mismatches. There is some debate as to whether these policies are successful; nonetheless, they are now an important attribute of IHRD ecosystems.

Governance and Regulation of IHRD. Scholars have highlighted the role of regulations and directives concerning people development. Gaur et al. (2007) suggested that the greater the legal or regulatory differences among countries, the greater the challenges and barriers to the transfer and diffusion of HRM and HRD practices. Therefore, the legal regulations of the host country represent an important institutional force shaping IHRD practice configurations in host countries. For example, Webster and Wood (2005) found that institutional policies and legal rules in Mozambique significantly hindered the implementation of HRM practices including training and development. Gunnigle, Pulignano,

Edwards, Belizon, Navrbjer, Olsen and Susaeta (2015) highlight that the success of market-driven HRM practices such as training are due to the liberalization of the industrial relations environment in countries such as Ireland, Canada, Australia, the UK and US. Local policy regulations may mandate that foreign firms invest in the development of local employees and may set levies or taxes related to training.

Meso-Level Ecosystem Dimensions

Our analysis highlights multiple actors that influence an IHRD ecosystem at the meso-level and the interactions that take place between different actors as they formulate and implement IHRD policies and practices.

Professional HRD Networks: The role of professional HRD/HR networks is highlighted as an important network resource that influences the types of IHRD practices that are implemented within an IHRD ecosystem. IHRD practices are socially established by networks of professional (Dobbin, Sutton, Meyer, & Scott, 1993) and therefore contact and interaction with HRD professional networks outside the organization can be valuable in helping to legitimize particular approaches within an organization (Subramaniam & Youndt, 2005). Scholars highlight that professional bodies play a major role in establishing a professional body of knowledge and in mandating best practice approaches to HRD (Kim, Ryu, Kim & Lepak, 2017). An important feature of the international HR landscape is the existence of a variety of people management organizations such as the Asia Pacific Federation of Human Resource Management, The Canadian Council of Human Resource Associations, the Singapore Human Resources Institute, the Society for Human Resource Management (SHRM), and the Association for Talent Development. SHRM is one of the largest HR practitioner associations and it plays a major role in in developing curriculum standards for HRD degree programs. In a similar vein, the Academy of HRD which is

primarily an academic network specifies standards for HRD education programs. The sharing of knowledge is an integral part of these organizations (Degraffe, 2010) and they play a key role in networking. Organizations such as The Conference Board enables senior executives to network and they conduct research on best practices in HR and HRD.

Certification is also a major role of professional bodies and they help to raise the standards of HRD expertise. Scholars also highlight that professional bodies have a key role to play in the development of HRD standards at an international level (Anderson, 2017). Therefore, where HRD professionals participate in these professional networks, they are able to gather information and knowledge concerning best practice IHRD approaches and to have them implemented within an organization.

Networks of Expatriates and International Workers. Scholars highlight that the use of expatriates and international employees is common place in international organizations and MNCs (O'Donnell, 1999). They play a major networking and knowledge transfer role in organizations. Ahlvik et al. (2016) argue that expatriates have both a headquarters and subsidiary perspective and as a result they operate as important boundary spanners who transmit knowledge and facilitate the development of networks between the subsidiary and headquarters. Reiche, Kraimer, and Harzing (2011) likewise conceptualized the international assignee as an information boundary spanner between multi-national units and found evidence that host—unit social capital enhanced individual intellectual capital as well as inter-unit intellectual capital. Gupta and Govindarajan (2000) suggested that expatriates can have important relationships with headquarters that are characterized by strong social ties and fewer communication problems. They, therefore, will play a major role in the transfer of HRD practices from headquarters to the subsidiary and they also articulate the transfer intentions of headquarters. Thus, there are benefits in expatriates and international employees having strong transnational social capital. Levy, Peiperl and Bouquet (2013), for example,

found that employees working in a transnational context and who undertake transnational assignments needed to both develop and possess larger and significantly more diverse social networks.

Mäkelä and Suutari (2009) found that transnational HR managers require both internal and external weak ties. Weak ties help them to bridge a number of different geographies and functions while also needing to maintain strong ties with their home base. Meijerink and Bondarouk (2018) highlight the role of social capital in particular the amount of knowledge that they can mobilize, the shared knowledge that they possess and the relationships they have with key stakeholders. The trust dimensions given particular emphasis as an important dimension of knowledge sharing and the transfer of HRD practices (Kostova & Roth, 2002).

Consultants, Directors, Outsourcers and Support Services. Scholars increasingly highlight the roles of contultants, directors, outsources and support services as a fundamental part of an ecosystem. Consultants provide important services in the context of IHRD and they may fill talent gaps found in particular regions and countries. Tkaczyk (2017) highlights the important role of external consultants in HRD knowledge transfer and in helping a global insurance company transform a rigid training function into a more agile learning and development function that fosters a knowledge creative culture. Poor, Wood, Karoliny, Kovács, Gross, Szlávicz, Berber and Szabó (2018) examined trends in the use of external consultants to manage human resource issues and found that while they decreased during the recession, their use in on the increase again.

External directors are also an important social dimension. Johnson, Daily and Ellstrand (1996), for example, highlighted the role of networks of outside directors in helping to obtain important resources and in providing important monitoring functions. Kim *et al.* (2017) emphasize the important role of outside directors in Korea and the advice they provide

that helps to strategically position HR activities. Mullins (2018) proposes that directors can facilitate access to other HRD related stakeholders, they can open channels of communication with extremal resource providers and they can enhance the legitimacy of HRD within the organization. They can also provide organizations with advice on how to deploy HRD strategies locally and maximize investment in HRD. Given that some countries do not have regulatory requirements around the operation of HRD in organizations, network of directors play an important role in ensuring, for example, that sustainable and ethical HRD practices are implemented. Outsourcers are an important component of IHRD ecosystems in that they frequently deliver important components of HRD activity. Klaas, McLendon and Gainey (2001) found that international firms adopting a strategic approach to HR issues are more likely to outsource specialist HRD activities. These activities will almost always be transactional in nature (Redman & Wilkinson, 2009). Support services will provide specialized activities including human resource experts who are accustomed to the unique challenges that organizations and IHRD specialists will face in a particular country. The availability of these supports may greatly impact the success of the function or role in a particular area and are therefore a key element of the IHRD ecosystem. Research on this important component of IHRD ecosystems is very scarce.

Competitors, Suppliers, Customers and Strategic Partners. Scholars highlight the role of competitors, customers, suppliers and strategic partners within the IHRD ecosystem (Cohen, 2015). Competitors may be a source of best practice HRD through a process of cognitive isomorphism whereby subsidiaries copy practices found in other subsidiaries within a region or country. In order to compete in the local labor market, subsidiaries may have few choices but to implement similar HRD practices to attract highly skilled employees.

Rosenzweig and Nohria (1994) found that competitors have a major influence on a variety of HRM practices including training and development practices. Customers and suppliers may

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be sources of requests for training and development as well as the source of knowledge on best practice training approaches. Holman, Lamar, Grimshaw, Holdsworth and Marchington (2012) found that during contracting with both suppliers and customers, MNCs can specify the need to adopt particular training and development practices. Similarly, strategic partners may develop HRD practices in collaboration that are then implemented in both organizations.

Educational Institutions. Educational institutions are highlighted as an important component of an IHRD ecosystem. Education institutions including universities provide important resources for IHRD ecosystems. They play a major role in the development of human capital within a country or region and developing in students a global mindset that will prepare them to work in MNCs and international organizations. They may also collaborate with MNCs to develop industry or organization specific programs that contribute to specific human capital development (Meyer, Mudambi & Narula, 2011). Universities are also an important source of knowledge on HRD and local context issues. They may develop new knowledge that enables subsidiaries to develop their human resources more effectively and they may work collaboratively with MNCs to conduct research on people development issues. These various activities help to embed the MNC or international organization in the local context and may lead to the proliferation of HRD practices that can then be transferred back to the corporate headquarters or diffused to other subsidiaries (Gooderham, Minbaeva & Pedersen, 2010). However, universities and educational institutions may prove less effective in this context. For example, Ansah and Ernest (2013) found significant mismatches between universities, MNC and labor market requirements with significant skill quality issues particularly in developing countries. MNCs operating in less developed host countries frequently complain about the need to retrain graduates to meet job requirements which significantly adds to the cost of training and development (Bawakyillenou, Akoto, Ahiadeke, Aryeetey & Agbe, 2013).

 Subsidiary-Subsidiary Headquarter Networks. Scholars have highlighted the importance of strong networks with other subsidiaries and with corporate headquarters (Moran, 2005). The relationship between the subsidiary and headquarters is important in shaping the way HRD practices are implemented. Alignment between the headquarters and its subsidiaries is important to developing local HRD practices and their implementation. In addition, headquarters may be concerned that some of the practices developed locally can be implemented in other subsidiaries. Where the headquarters has strong social capital with the subsidiary, it can send important signals as to its status and role within the organization. High levels of social capital is vital to inter-subsidiary knowledge sharing and of particular value are informal social relationships. Cross and Cummings (2004) found that greater geographic diversity resulted in enhanced external to the group knowledge sharing. In a similar vein, Hansen, Mors and Lovas (2005) found that the greater the size of the intersubsidiary network, the greater the probability of knowledge seeking across subsidiaries.

The frequency of interaction between a subsidiary and other subsidiaries and with the headquarters is important for the transfer of HRD practices within an ecosystem. Ahlvik, Smale and Sumelius (2016) define the frequency of interaction as the extent to which an individual responsible for HRD implementation at the local level communicates with headquarters through face to face meetings in addition to technology mediated communication processes. Where there is frequent interaction, it helps the subsidiary to communicate its activities and for headquarters to communicate its intentions concerning the transfer of HRD practices. Frequent interactions and networking by a subsidiary with headquarters will heighten the visibility of the IHRD role at the local level and enhance awareness of important achievements and projects. This can confer benefits for the HRD specialist such as enhanced job performance (Cross & Cummings, 2004), enhanced career

mobility, and faster access to more diverse sources of information (Nahapiet & Ghoshal, 1998; Gubbins & Garavan, 2016; Gubbins, 2017). Strong networks between subsidiaries can facilitate practice transfer as well as leveraging resources for HRD.

Family and Peers. Scholars highlight that family and peers play a particularly important role at the individual employee level. They are important for a number of reasons. First, families and spouses are particularly important in the context of expatriates and inpatriates (Lämsä, Heikkinen, Smith and Tornikoski, 2017) and they may face tensions when interacting with surrounding ecological systems and their challenges in adapting may present challenges for the expatriate. Researchers highlight that family concerns are a key challenge for employees on international assignments and they play a key role in assignment success or failure. Family influence is particularly salient in the decision of the employee to take an international assignment (Haslberger & Brewster, 2008). Similar to families, scholars highlight peer groups at work are one of the most important sources of support to employees and international assignees. Where international employees are embedded in strong peer groups, that are likely to benefit in terms of development including, identity development, and self-confidence. They are also likely to play a major role as mentors and they may contribute to the success of international assignees (Carraher, Sullivan & Crocitto, 2008). Research highlights the role of peers as mentors who contribute to both career development and knowledge creation. Harvey, Speir and Novicevic (1999) suggested that a mentor can aid an expatriate in the pre-departure, expatriate and repatriation process. Collings, Scullion and Vaiman (2011) highlight the role of support from peers as well as hierarchical mentors for international assignees.

Global and Local Actor Decision Making: An important actor dimension that we place at the meso-level concerns how both the HQ and subsidiary and local unit resolve different normative requirements. Scholars have highlighted that this potential clash of

environments, where normative pressures exist at local and corporate level that will influence discussions about IHRD practices. In particular, there may be normative pressures that exist at local or corporate level that will deviate the types of practices that will be implemented (Blumentritt & Nigh, 2002). So will they make decisions that enable them to be consistent with the local context or will the corporate priorities or context prevail (Björkman et al., 2008). Tanova and Nadiri (2005) found that large organizations were more prone to normative isomorphism when making decisions in the context of training practices in Turkey where they found large organizations were more likely to adopt more formal training approaches as these were normatively considered to be more effective. Fortwengel (2017) compared training practices in Germany and the US and found some important differences resulting from normative influences. In Germany, for example, the dominant training practice is occupational apprenticeship training because apprenticeship is a highly valued initial training route whereas in the US, the emphasis was on flexible on-the-job training because apprenticeship is viewed as a marginalized and inferior option. Research also reveals that HR and HRD as an organizational function should be closely linked to the local normative environment if it is to be effective (Rosenzweig & Singh, 1991). However, the dilemma concerns how to resolve differences arising from the local versus headquarters normative influences.

A second dimension in this context concerns the policy position of the HQ on the transfer of HRD policies and practices from the corporate level to the local subsidiary or unit. Scholars highlight that The most salient and pervasive policy consideration concerns the transfer of proven HRD practices from the headquarters to foreign subsidiaries as well as the diffusion of HRD policies and practices from the subsidiary back to the corporate headquarters or to other subsidiaries (Hocking, Brown & Harzing, 2007; Chiang *et al.*, 2017). MNCs and international organizations often have a policy objective to leverage practices

across multiple locations and countries. Each of these locations will face unique competitive and institutional complexities that make the transfer of corporate HRD practices to local units or subsidiaries difficult. The decision to transfer such practices from the headquarters to the local requires MNCs and international organizations to differentiate and segment the way that practices are transferred.

Subsidiaries or local units will vary considerably in their skills level, their strategic HRD capabilities and in the degree of trust that headquarters have in their capabilities to transfer. These policy decisions also bring into focus important questions concerning the practices to be transferred, the roles of headquarters and subsidiary HRD functions, the mechanisms that will be used to transfer, and the locations that they will be transferred to. Training and development practices may be less susceptible to contextual influences and may be easier to transfer. Myloni, Harzing and Mirza (2007), for example, found that while many practices were transferred to the subsidiaries, where they did not resonate with the local culture they were not implemented. Fu (2012) likewise found that HR practices such as training and development practices which were more explicit and codified and less industry specific could be disseminated more easily across subsidiaries.

Micro-Level Context

At this level, we envisage a direct exchange between actors, specifically between firms/subsidiary/local unit and employees/workers. This represents the traditional dyad or two-party relationship that is central to employment and work. Drawing on social exchange theory (Blau, 1964), it is at this juncture that the significant exchanges take place concerning investments in HRD, where employees and workers receive HRD in return for organizational commitment, motivation and performance.

Employees and Workers: We propose that the employee or worker is a central actor in an IHRD ecosystem (Collings, 2014). We make a distinction between employees and workers because many individuals do no longer have traditional employment relationships but may be independent contractors, international workers (Cascio & Boudreau, 2016). Increasingly the firm must consider workers as not necessarily employees (Boudreau, Jesuthasan & Creelman, 2015). They are individuals who are not employed by the organisation they work for yet they perform important roles. Employees and workers are the actor who will experience directly IHRD practices, however, they are frequently overlooked (Wright & McMahan, 2011). They are increasingly viewed as consumers of IHRD. (Meijerink, Bondarauk & Lepak, 2016; Priem, 2007). Organizations strive to ensure that employees have positive experiences of HRD practices and, therefore, the way they are perceived by employees is important. An important stream of research proposed that how employees experience these practices and their human capabilities to engage with HRD are of vital importance to explaining the effectiveness of HRD in organizations. The argument goes that where the recipients do not make use of HRD practices then their value is diminished. Meijerink and Bondarauk (2018) propose that the human capital of employees as consumers of HRD determines their utilization of the practices and services provided. They conceptualize this human capital along two dimensions: (i) the knowledge resources possessed by an employee to co-produce and use the services provided and (ii) the human capital of employees in terms of their knowledge and skill to fit services to meet their needs. They found that HR will only create high value where the employee has high levels of both aspects of human capital.

Firm, Subsidiary or Local Unit: Scholars highlight various characteristics of the subsidiary or local unit that are relevant to the operation of an IHRD ecosystem. For example, scholars have suggested that the length of time a subsidiary is in the location and the number

of subsidiaries can be influential in the provision of IHRD practices. For example, well established subsidiaries or local units may be able to provide more sophisticated practices because they can leverage local resources for HRD and have better access to knowledge resources related to IHRD. The presence of a number of subsidiaries may provide opportunities to leverage for financial support for IHRD due to bargaining power (Moon & Lado, 2000; Kuswanto, Hoen, Herman, & Holzhacker, 2017).

A second characteristic of the firm or local unit concerns the competence and capability of the HRD function (Cohen, 2015). Scholars have identified dimensions of competence and capability that are important. Tannenbaum and Dupuree-Bruno (1994) found for example that the education level of HR professionals was positively related to the extent to which an organization used innovative HR practices. Mullins (2018) highlights the importance of HR professional expertise and education in the context of the implementation of HR management practices. Keegan, Bitterling, Sylva, and Hoeksema (2017) propose that HR professionals, including those responsible for HRD, are required to respond to a variety of paradoxical tensions that have important implications for the dynamic capabilities of the HRD function. Ahlvik *et al.* (2016) also emphasized the strategic capability of the HRM function for HRD practice implementation in subsidiaries. They further suggest that a high level of HR strategic capability within a subsidiary could facilitate the development of local practices rather than only following global best practices. Strategic HR capability is also valuable in helping the local HRD function to better articulate its needs to headquarters and to convince HQ that it should allow more local flexibility in developing local practices.

A third firm dimension highlighted by scholars concerns the policy framework, processes and databases for IHRD. The policy intent may be to achieve a high level of corporate-level control or to enhance local responsiveness (Farndale, Paauwe & Hoeksema, 2009). Centralized policy oriented approaches help the organization achieve effective

governance however they are less effective in reducing local unit or subsidiary responsiveness. On the other hand, more decentralized approaches lead to duplication and/or diversification of HRD processes and policies (Janssen & Joha, 2006). The existence of robust policies, processes, databases and policy manuals around HRD represents an important component of organizational capital that will facilitate the implementation of HRD practices in the local subsidiary or unit.

Process Dimensions of an IHRD ecosystem

Our meta-synthesis points to a number of process dimensions of an IHRD eco-system characteristics. The evidence on these dimensions is more tentative.

Emergence & Boundaries of IHRD Ecosystems: The meta-synthesis indicates that many actors will operate within an ecosystem including employees and labor market participants, MNCs, government agencies, NGOs and other actors with some remit for people development. However, it is clear that a high profile MNC may play an important role in the emergence of an IHRD ecosystem in that it gives it legitimacy and it has connections with different actors (Edwards & Rees, 2006). In addition, national government training agencies or policy makers may also play a key role in the emergence of an IHRD ecosystem however no actor is said to be in control (Kenny & Kinsella, 2015). The process of emergence will be chaotic and it is therefore better to view an ecosystem as something that is ongoing where IHRD actors acquire resources, knowledge and support and increasing the sophistication of and types of HRD practices (Autio *et al.*, 2017). Moore (1993), for example, proposes that ecosystems evolve in life cycles as the interactions of the various attributes change. Therefore, each ecosystem dimension does not operate in isolation but develops in tandem, and in turn helps to influence or reproduce one another. So in a country or region where there is strong cultural value attached to development and training, this will greatly impact the

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desire and motivation of other actors in an ecosystem to support such activities. Where societal attributes are favorable, this helps to normalize and legitimize HRD activities within the wider set of MNCs and international organizations. Where such supportive conditions exist, it then helps to foster strong social networks between HRD professionals, government agencies that support HRD, external consultants and HRD support services leading to a better functioning IHRD ecosystem.

Government policies and programs designed to support the HRD activities of MNCs and international organizations are therefore more likely to flourish where there is supportive human, social, policy and societal dimensions. There is much debate as to what constitutes the boundaries of ecosystems. Scholars point to potential geographic boundaries (Cohen, 2006; Zheng, Hyland & Soosay, 2007); however, other authors highlight potential sociocultural characteristics such as values and norms as potential boundaries. For example, Hassi and Storti, (2011) highlight that cultural values may help explain the emergence of ecosystems and the roles that different actors play. Therefore, actors that are central to both developing and maintaining these values will be more influential within an ecosystem. The results of the meta-synthesis suggest that the boundaries of IHRD ecosystems will be open but distinctly defined whether it be by geographical or socio-cultural characteristics.

Diversity, coherence and resilience of IHRD Ecosystems. Ecosystem scholars and complex adaptive systems theory highlight the importance of both diversity and coherence to the resilience of an ecosystem (Manson, 2001; Roundy *et al.*, 2017). In the context of IHRD ecosystems, this could include the types of organizations that are located within the region, the demographic diversity of employees, customers and suppliers and agencies that help the development of IHRD practices. Stam (2015) highlights that while diversity is important, it is also important to have coherence where actors act in a coordinated way to enable the development of HRD practices.

Coherence in the context of an IHRD system emphasizes the extent to which HRD actors network work with each other, and the extent to which they coalesce around important practices and strategies. This may include having similar goals concerning HRD practices, the types of innovative practices that are implemented and the role of support organizations in enhancing the coherence of IHRD actors' intentions, actions and outcomes. An important implication of the ecosystems approach is that in situations where there are dense relationships between the different attributes leading to greater levels of alignment, the quality and effectiveness of IHRD is enhanced. Dense relationships between dimensions act as a trigger resulting in a strong interplay between societal and normative attributes, networks of actors involved in HRD and public programs that support and fund HRD.

Roundy (2017) highlights the role of attractiveness and attention in influencing the resilience of an ecosystem. Attractiveness is related to the density of actors within an ecosystem and attention emphasizes the extent to which actors are focused on the activities of the ecosystem. Mason and Brown (2014), amongst others, highlight that attention represents an important intangible resource that helps an ecosystem to be resilient. This attention may attract resources from outside an ecosystem as well as getting greater buy-in within then ecosystem for particular types of HRD practices. Where an ecosystem secures significant attention for external stakeholders it will facilitate the flow of resources and expertise to the IHRD ecosystem. This, in the context of an IHRD ecosystem, may include financial resources to find particular types of practices, the development of training programs to enhance HRD professional competencies and the generation of "buzz" about how successful the ecosystem is in terms of developing human resources.

Non-linearity, Adaptability and Vicarious Learning. IHRD ecosystems will involve many interdependent components that create non-linear dynamics and interactions. These interactions will be influenced by feedback loops from various actors within the

ecosystem. For example, interactions between subsidiaries of MNCs and local employment agencies and national policy organizations will help the systems to grow and flourish where the feedback is positive. Complex adaptive systems theory characterizes positive feedback loops as autocatalytic in that they help an ecosystem to grow and flourish (Morrison, 2008). There is evidence that these interactions can lead to the emergence of new IHRD practice approaches, the emergence of best practice standards and increased resources from national governments (Mendenhall, Osland, Bird, Oddou, Stevens & Maznevski, 2017). In addition to non-linearity, the interactions between IHRD actors lead to adaptability within the ecosystem. Adaptability comes about through continuous interactions resulting in greater resilience and strength. For example, there is evidence that MNC subsidiaries can be influential in helping other local organizations and domestic-owned MNCs to enhance their training practices (Brooks *et al.*, 2017). There was also evidence that local firms also impacted the practices of MNCs.

Our meta-synthesis highlighted vicarious learning is also an important process dimension. This process dimension focuses on the extent to which actors learn from each other through observing the HRD policies and practices implemented in other organizations (Baum & Ingram, 1998). Well-established organizations within an IHRD ecosystem can represent an important source of vicarious learning for more newly established organizations or organizations within particular business areas. The majority of IHRD ecosystems will contain a variety of different organizations at various stages in the life cycle. Manz and Sims Jr (1981) suggest that the diversity of firms available will allow actors to learn through observation and provide significant knowledge to enhance HRD practice implementation. These established actors have significant knowledge reserves related to practices, routines and processes related to best practice HRD. Networks of individuals and organizations, peers who act as mentors and support development, and professional organizations who mandate

best practice HRD will all contribute to the reproduction of an ecosystem's pre-existing societal attributes and help to normalize HRD practices within subsidiarity locations. It will also contribute to the transfer and diffusion of HRD practices between subsidiaries and from headquarters and a subsidiary.

DISCUSSION

The purpose of this paper is to contribute to scholarship on IHRD through the utilization of an ecosystems perspective and meta-synthesis to identify the content and process dimensions of an IHRD ecosystem. Placing IHRD in the context of an IHRD ecosystem helps researchers and pract8itioners to understand the different bottom-up and topdown actors that shape IHRD policies and practices We base our framework on an ecosystem-as-affiliation approach and we make three specific contributions to the literature. First, we identify specific content and process dimensions that constitute an IHRD ecosystem. This provides a framework for future researchers to understand the dynamics of IHRD ecosystems, to analyze and compare IHRD ecosystems and thus shed light on how they differ, how they emerge, change over time and influence IHRD policies and practices. Second, we suggest a configuration of the ecosystem content dimensions into three levels of analysis emphasizing the role of different bottom-up and top-down actors within an ecosystem. Our analysis reveals that an IHRD ecosystem is complex in that they involve the participation of many different actors including top-down institutional actors who generate formal and informal institutional requirements that influence IHRD practices and bottom-up actors such as employees and organizations. Third, our analysis draws attention to the potential complex interactions between actors. Relationships between different actors are central features of ecosystems and in particular the co-creation processes that occurs between actors. Actors do not operate in isolation and ecosystems will have multiple possible

configurations of actors. The current literature provides relatively few insights on the roles of top-down and bottom up actors interact with each other therefore future research must seek to understand how they interact with each other and help to reproduce and grow an ecosystem.

We also found it difficult to reach conclusions concerning the areas of complementarity and dissonance between and within the different bottom-up and top-down actor. For example, our analysis suggests that there are significant benefits for an IHRD ecosystem to be gained through the interplay between a supportive cultural context, strong networks of relationships between actors and strong government support and resources for HRD investment. Likewise, strong government support for HRD can play an important role in fostering HRD within individual firms. In addition, strong sets of professional networks, consultants and financial resources can help IRHD practices to flourish and be legitimized within an ecosystem. These successes for example, can create new stories concerning the success of investment in HRD as arises in the case of Singapore (Kim & McLean, 2012).

An important limitation of an ecosystems approach concerns the lack of a theory to understand their emergence, evolution, change and outcomes. While the identification of actors and how they relate to each other represents the first stage of a research agenda, it is important to go further. Specifically, there is a need to utilize theories that can provide a dynamic perspective on IHRD ecosystems and identify how their structure changes over time in response to both internal and external changes. Therefore, we suggest that the use of complex adaptive systems theory (Abbott & Hadžikadić, 2017) may have particular value. It has been used to study financial markets (Mandelbrot, 1999) and business systems (Schneider & Somers, 2006). It can add a distinctive theorization of the process dimensions of ecosystems and how content dimensions interact with each other of ecosystems due to its emphasis on actors, emergence, adaptation and non-linearity. Therefore, CAS theory suggests

a number of important avenues for future research related to why and when IHRD ecosystems emerge, how and why they evolve and change. We focus on

Emergence: Complex adaptive systems theory emphasizes the importance of emergence and the tendency of a higher-level gestalt to develop from actors interacting within the system. Spigel (2017) for example, highlights that there are significant gaps in our understanding of why ecosystems emerge. Autio *et al.* (2017) for example, likewise the need to understand the speed of emergence of ecosystems. This comment equally applies to an IHRD ecosystem. This we suggest represents an initial starting point for researchers.

Questions that can be posed related to ecosystem emergence include the following: What is the role of formal and informal mechanisms play in helping IHRD emergence? What role do particular configurations of top-down institutional actors play? What types of networks of relationships between actors support the emergence of an IHRD ecosystem? How do government policy initiatives and funding influence ecosystem emergence? What is the role of both employees and organizations as bottom up actors in emergence?

Adaptation: CAS theory proposes that given the dynamic nature of an ecosystem, they experience constant change (Stacey, 1996). Questions that can be investigated include the following: What configurations of IHRD ecosystem actors are conducive to its adaptation and evolution? How do the boundaries of an IHRD ecosystem change over time and what factors prompt these changes? Scholars have also highlight the need to understand the impact of resource deficiencies on the adaptation and growth of ecosystems (Spigel & Harrison, 2018). Questions that can be addressed in this context include the following: How does knowledge sharing and cooperation between actors influence the adaptation of an IRHD ecosystem? What role does vicarious learning play? Does extensive networking and interaction between actors enhance the success of an IHRD ecosystem? Gubbins (2017), for example, highlights the roles of networking in heling to build bridges to link actors who are

not related to each other. In a similar vein, there is scope to investigate the factors that enhance the reliance of an ecosystem.

Distributed or Networked Control: CAS theory for example, emphasizes the role of distributed or network control (Cohen & Axelrod, 2000). Jacobides *et al.* (2018) highlights in a similar fashion that ecosystems are not hierarchically controlled. Therefore, these observations raise important questions concerning the rules of engagement. Questions that arise in this context include: What factors determine the level and form of control exercised by actors within the IHRD ecosystems? What control mechanisms are used to regulate actor interactions and what factors influence their effectiveness? What impact do efforts or attempts at top-down control have on the sustainability of an IHRD ecosystem? CAS theory suggests that attempts at top-down control will hamper actors' ability to adapt (Zimmerman, Lindberg & Plsek, 1998).

Non-Linearity: CAS theory proposes that ecosystems will involve multiple levels of interactions between heterogeneous actors and not all actors are created equal. This feature raises important questions related to the functioning of IHRD ecosystems. Examples of questions include: What types of collaboration and coordination behaviors that will occur between actors within an ecosystem? What are the attributes and behaviors that facilitate interactions between ecosystem actors? What role does ecosystem actor diversity and resilience have on actor interactions? How do interaction patterns enhance the success or lead to the demise of an IHRD ecosystem? How, for example, do individual organizations derive resources for an IHRD ecosystem and do all actors benefit equally? What benefits accrue to employees? Researchers need to develop metrics or indicators that can be used to measure the presence of ecosystems, compare them in different regions and measure their success.

METHODOLOGICAL IMPLICATIONS

Given the complexity of content and process dimensions that constitute an IHRD ecosystem appropriate methodologies are required to understand its operation. Embracing an ecosystems perspective and operationalizing CAS requires that HRD scholars to move away from the traditional methodological approaches. Scholars in other disciplines have suggested for example system dynamic modelling (Apostolopoulos, Lemke, Barry & Lich, 2018) as a way of researching complex ecosystems. This approach emphasizes a top down aggregate approach to capture non-linearity, time-lagged effects and the interaction of ecosystem characteristics. Where researchers utilize more participatory bottom-up approaches these need to longitudinal capture complexity Roundy et al. (2017) propose that mixed method approaches have particular utility to capture the complex process dimensions of ecosystems. These mixed methods may involve some of the more traditional qualitative and interpretivist approaches that are found in HRD research (Torraco, 2004). These methods span a considerable spectrum and include semi-structured interviewing, document analysis, 'ethnographic observation and case studies. These methods are particularly valuable in capturing context, in understanding logics within the ecosystem and in understanding actor discourse. Roundy et al. (2017) suggest that qualitative comparative analysis may be valuable to investigate conditions within ecosystems and the content dimensions of those ecosystems. Overall, the use of ecosystems approaches and CAS and the methodologies to research them are inadequately understood within HRD research. There is little evidence of longitudinal analysis and they and do not capture the complexity and dynamics of ecosystems with too much use of cross-sectional research investigating firm level IHRD. Ecosystems emphasize macro-, meso- and micro-levels of analysis.

CONCLUSIONS

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Placing IHRD within and ecosystems perspective helps to advance theorizing and research by highlighting the interactive and dynamic nature of IHRD processes and the need to understand IHRD policies and practices in a multi-level way. We used meta-synthesis to identify both content and process dimensions of an IHRD ecosystem. Content dimensions highlight the bottom up and top down actors and processes that constitute the ecosystem whereas process dimensions' focus on how ecosystems evolve, develop and are sustained. We drew on complex adaptive systems theory to propose a research agenda. We therefore encourage researchers to build on our initial conceptual framework to understand the content and process dimensions of IHRD, the role of different bottom-up and top-down actors how they interact with each other and how IHRD ecosystems emerge, evolve, grow and decline.

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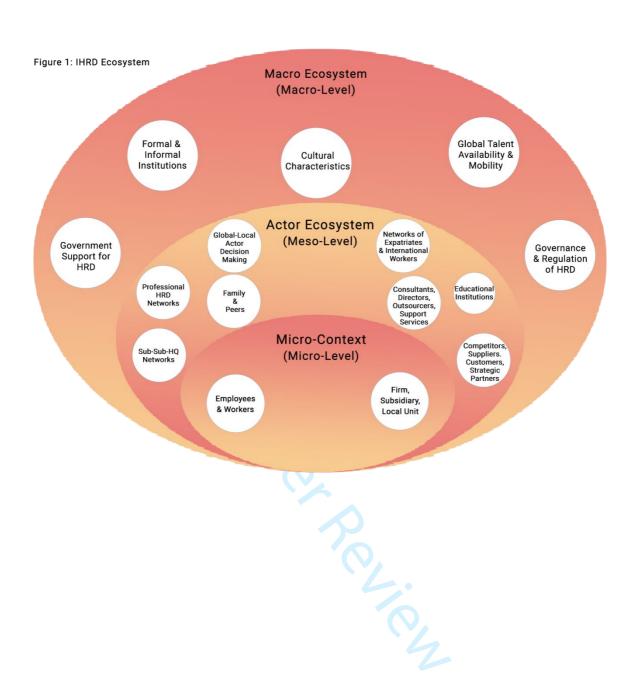


Table 1: IHRD Ecosystems: Content & Process Dimensions, and Gaps in the Literature

Level of Analysis	Dimensions	Definition	Key Findings	Gaps in the Literature
CONTENT				
Macro-Level	Cultural Characteristics	Cultural dimensions within an ecosystem that impact HRD policies and practices and their implementation	Use of Hofstede framework to evaluate the impact of cultural characteristics on IHRD practices and the implications of different cultural values on practices.	 Over reliance on the Hofstede framework Over focus on researching the impact of cultural characteristics on practices rather than actors decision-making Limited research on how actors at micro and macro level respond to cultural characteristic differences
	Formal and Informal Institutions	Consistent of formal and informal rules and rituals that are derived from institutions within an ecosystem and their impact on HRD practices and outcomes	 Some research highlights the role of formal institutions supportive of IHRD Some research highlighting how formal and informal institutions interact with each other 	 Very limited insights on the interaction of formal and informal institutions and their impact on different levels of an ecosystem Few studies have explored how meso and micro level actors respond to top down formal and informal institutions
	Global Talent Availability and Mobility	The availability and mobility of talent pools globally and their fit with the needs of an ecosystem.	 Important role of talent global talent pols and the mobility of global talent Major local, regional and country actor influence on talent mobility. 	 Limited insights on how talent shortages impact the HRD responses in terms of practice and policies Little research on development issues within ecosystems where there are surpluses and deficits of talent

	Government Support for HRD	• The extent of state and regional policies, programmes and incentives within an ecosystem and their impact on its operation	 Governments increasingly create publically funded programmes to attract MNCs that focus on talent quality Research on immigration policies and talent mobility and country specific initiatives is increasing 	 Limited macro level research exploring how different types of government support and enhance the growth of an ecosystem or lead to its demise Limited research on the linkages between meso and micro-level actors and government institutions who support HRD and the role of bottom-up and top-down processes.
	Governance and Regulation of HRD	National, state and regional regulation and governance mechanisms that mandate or restrict HRD approaches within an ecosystem	Some research on regulatory processes and barriers to the transfer of HRD practices	 Limited insights into the differences in governance and regulation of HRD across IHRD ecosystems as a top-down actor. Few insights on how governance and regulation influences the behaviour of meso and micro level actors and how bottom-up actors respond.
Meso-Level	Professional HRD Networks	The sets of networks and relationships between HRD professionals within an ecosystem and their role in knowledge sharing and dissemination	 Networks of HRD professionals are important in legitimizing HRD practices Professional bodies also legitimize specific HRD practices 	 Gaps in knowledge concerning the networking of HRD professionals as bottom-up actors and the knowledge they derive from these networks Scope to generate insights on how professional networks enhance the sustainability of an ecosystem.
	Networks of Expatriates and	The extent and strength of networks of expatriates and international	Expatriates and international employees disseminate HRD practices and transfer knowledge	Lots of research on expatriates but limited knowledge of the role of expatriates as knowledge transfer agents within an ecosystem

International Workers	workers who facilitate knowledge transfer within an ecosystem	Important role of both internal and external networks	We can develop greater insights into the roles of expatriates and international workers in strengthening an ecosystem and legitimizing particular approaches to HRD
Consultants, Directors, Outsourcers, Support Services	The presence of external consultants, directors, outsource partners and support services within an ecosystem	 Research on the roles of consultants and support services in enhancing the IHRD ecosystem Role of outsources in delivering components of HRD in mandating HRD practices 	 Gaps in knowledge concerning the impact of consultants, directors and other support services on ecosystem resilience Scope to develop insights on the networking between consultants, directors and other meso and micro level actors and their bottom-up influence
Competitors, Suppliers, Customers, Strategic Partners	The presence of competitors, suppliers, customers and strategic partners within an ecosystem	 Role of competitors in legitimizing HRD practices Influence of suppliers and customers 	Knowledge gaps around how and when competitor actions and demands of customers, suppliers and strategic partners enhance the resilience and diversity of an IRHD ecosystem
Educational Institutions	The presence of universities and other education institutions within an ecosystem and their contribution to talent availability and generation of HRD knowledge	 Educational institutions influence talent availability and global mobility Evidence of education – MNC collaboration to ensure talent availability 	 Scope to develop insights concerning the impact of universities and other educational institutions on the health of an IHRD ecosystem, its attractiveness and resilience Knowledge gaps concerning the extent to which meso and micro level ecosystem actors leverage knowledge resources and expertise form education institutions

	Subsidiary – Subsidiary Headquarter Networks	The presence and strength of networks between subsidiaries / local units and between these entities and head quarters	 Role of networks between subsidiaries in disseminating and legitimizing HRD practices Networks between subsidiary and HQ important for HRD practice transfer 	 Knowledge gaps around the value of networking between subsidiaries and HQ to the resilience and coordination of an ecosystem Scope to explore the determinants and outcomes of network development between subsidiaries and other subsidiaries and HQ within ecosystems and how they evolve over time
	Family and Peers	The role of family and peers within an IHRD ecosystem and their influence on growth and resilience of the ecosystem	 Emerging research on the role of family in influencing talent availability Research highlights the importance of peers as mentors and development support 	Under-researched area in general but specific gaps around their impact on other macro dimensions of the ecosystem such as talent availability and mobility
	Global and Local Actor Decision- Making	The dynamics of global HQ – local subsidiary or unit decision-making and the issues related to transfer of practices and local responsiveness	 Research on how global HQ and subsidiaries resolve normative conflicts Research on policy and practice transfer from HQ to subsidiaries 	 Scope to develop insights on how sensitive HRD practices are to be informal/formal institutional requirements and cultural characteristics Limited understanding of the dynamics of practice transfer and the emergence of localized practices within an ecosystem
Micro-Level	Employees and Workers	Employees and workers as a focal actor within an IHRD ecosystem and the expectations	 Research is primarily on employees rather than workers Research on employees experience of HRD 	Scope to shift our focus away from employees and towards workers within an IHRD ecosystem and their role as consumers of HRD. What is their

	of employees and workers as consumers of HRD		 emergent influence on an IHRD ecosystem? Knowledge gaps around the role played by employees and workers in developing novel HRD practices within an IHRD ecosystem.
Firm, Subsidiary and Local Unit PROCESS	Characteristics of the firm, subsidiary or local unit in terms of reputation, HRD capabilities, skills, policies and practices	 Some research on how characteristics of subsidiary or local unit influence HRD Research on the competence and capability of HRD professionals and the role of HRD processes and databases 	 Scope to understand the contribution of local subsidiaries to the strength and resilience of an IRHD ecosystem Knowledge gaps around the relationships between local firms and employees and their impact on the development of HRD practices within an ecosystem
Emergence and Boundaries of IRHD Ecosystems	Processes related to the emergence of and IHRD ecosystem and its boundaries	 Ecosystems research highlights the role of emergence and factors that facilitate emergence Important role played by government actors and policy in facilitating emergence Process of emergence is chaotic 	 Knowledge gaps around the role of dissonance or tension within the components of an IHRD ecosystem Knowledge gaps around the nature of the boundaries of an IHRD ecosystem and how they evolve / change over time
Diversity, Coherence and Resilience of IHRD Ecosystems	The diversity, coherence and resilience of an IHRD ecosystem, the variety of actors within an	 Significant diversity in the types and numbers of actors that make up an ecosystem The importance of coherence is highlighted in influencing 	Knowledge gaps around the role of diversity of actors within an ecosystem and how they contribute to resilience and sustainability

	ecosystem, the heterogeneity and coordination of an ecosystem	how actors work with each other • Reliance of ecosystem influenced attractiveness of the ecosystem and the attention it receives from outside its boundaries	Scope to understand the role of coordination and governance processes within an IHRD ecosystem
Non-Linearity, Adaptability and Vicarious Learning	 Process dimensions related to the non- linearity of ecosystem dynamics, the adaptive nature of ecosystems and the role of vicarious learning 	 Ecosystems research highlights that they contain multiple interdependent components that create non- linear dynamics and interactions Vicarious learning important to the health and viability of an ecosystem 	 Gaps in knowledge concerning the configurations of actors that contribute to adaption of learning Scope to understand how interactions between IRHD ecosystem actors ensure adaptability and survival
		Review	