FRAMEWORK OF MACRO TALENT MANAGEMENT:

EXAMPLE OF THE UNITED STATES

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Interest in talent management (TM) in the business context and the macro (global) context increased significantly in the 1990s when a group of McKinsey consultants coined the phrase, 'war for talent' in late 1990s to emphasize the critical importance of employees to the success of top performing companies (Michaels, Hanfield-Jones, & Axelford, 2001; Scullion & Collings, 2016). While certainly important, it tends to focus mainly on the individual and organizational levels, and minimizes several macro or country factors of the global environment that are proving to be invaluable for TM at the individual and organizational levels (Khilji & Schuler, 2017; Khilji, Tarique & Schuler, 2015; *Oxford Economics*, 2014; Strack, et al., 2011). This is despite the long-standing interest in talent management in the global context, or the macro (country) level. In particular, non-governmental organizations such as the World Economic Forum (WEF), IMD's World Competitiveness Center, and the Organization for Economic Cooperation and Development began publishing reports about the importance of talent, education and quality of a country's workforce in the 1980s.

Since then several studies have highlighted the macro, country, view of talent management (Khilji and Schuler, 2017; Sparrow, Brewster & Chung, 2017; Cooke, Saini & Wang, 2014; *The Economist*, 2013; Heidrick & Struggles, 2007; 2011; Khilji et. al, 2015; *Oxford Economics*, 2014; WEF, *Human Capital Reports*, 2013; 2015; 2016; Lanvin and Evans, 2014; 2015). These studies and reports showed that many governments have joined the hunt for global talent by developing immigrant friendly policies. Some governments have also been luring back skilled

diaspora, and many others have been making serious investments in education and human development of their own citizens with the purpose of spurring economic growth by upgrading local capabilities and building innovative capacities for the firms in their countries (Lanvin & Evans, 2014; 2015; Evans & Lanvin, 2015; Khilji et. al., 2015; Ragazzi, 2014).

Active involvement of various governmental and nongovernmental organizations (NGOs), and several consulting firms, in attracting and developing talent makes TM truly a global issue, which reaches beyond a single organization and its talent management activities. It draws attention to complexity of the macro environment within which organizations develop their talent management systems, and individuals make career choices (Khilji & Schuler, 2016; Khilji et. al., 2015; Khilji & Keilson, 2014). It incorporates cross border flow of talent, diaspora mobility, and government policies to attract, grow, develop and retain the talent nationally for innovation, productivity and competitiveness, which facilitates talent management activities within organizations.

It is, therefore, important that the scope of talent management (TM) extend beyond an individual and organizational analysis to incorporate the macro level in order to fully comprehend the complexities of managing talent in today's globalized world, where organizations are not only competing with each other but where governments, organizations and their societies have also joined the race (Sparrow, et al., 2017; Lanvin & Evans, 2014; 2015; Ragazzi, 2014; *The Economist*, 2011;). As such, we propose definition of macro TM (MTM) as:

> *Factors such as the demographics, the economic, educational, social and political conditions of countries and the policies, programs and activities that are systematically developed by governmental and non-governmental organizations expressly for the purpose of enhancing the quality and quantity of talent within and across countries and regions to facilitate productivity, innovation and competitiveness of their domestic and multinational enterprises for the benefit of their citizens, organizations, and societies for long term advantage.*

By promoting the macro perspective, we want to broaden the scope of TM beyond its current main focus (on the individual and organizational levels). What we are describing, therefore, is not "global talent management" (which is focused on the individual and organizational levels), but talent management in the global context, which is focused on the macro level, or country level (it is both within a single country and/or across countries). At this macro level, talent is defined to include a large majority of a country's population, similar to companies that pursue an inclusive approach in their talent management activities. However, research has also shown that many countries also pursue an exclusive approach to target a small portion of the portion (such as youth programs and assistance for high performing citizens in Bangladesh and Pakistan-Khilji & Keilson, 2014).

To help facilitate our discussion in this chapter, we utilize a framework of MTM that encapsulates macro environmental factors, processes and outcomes that are our definition of MTM. Because this framework is relatively new, we briefly describe the components of this framework and offer applicable data primarily from the United States. As such, this chapter offers a further expansion and development of the Khilji and Schuler framework (2016) as shown in Figure 1.

Insert Figure 1 about here

While Figure 1 is our framework of MTM, it reflects the underlying frameworks that are being used by several NGOs (such as the WEF, the ILO, INSEAD, IMD and the World Bank) and consulting firms (such as McKinsey and BCG) to similarly describe a country's level of talent

management capability (infrastructure) as it endeavors to be more competitive and productive vis-à-vis other countries of the world. The headlines of reports from these organizations and firms typically report the overall rankings of talent management success and/or country level competitiveness and productivity based upon its talent management infrastructure. But these overall rankings can be thought of as the outcomes of a country's macro environmental factors and the MTM processes as shown in Figure 1. Fortunately, the reports from these organizations and firms also provide the extensive details behind these overall rankings. Thus, using Figure 1, the reports essentially obtain the detailed country information from a wide variety of sources that measure the macro environmental factors and the MTM processes shown in Figure 1. Then the reports combine that information and construct rankings of the countries around the world on the MTM outcomes/consequences, also shown in Figure 1. While some of these reports, notably from the World Economic Forum, gather and report on more information than related to solely talent management, our focus in this chapter is on that information related to talent management at the country level (including local levels such as cities and states). More specifically, the information used here to illustrate our framework in Figure 1 is largely based on the reports from:

- The World Economic Forum and its Global Competitiveness Index
- The World Economic Forum and LinkedIn and their Human Capital Report
- The Global Talent Index from the Economist Intelligence Unit and Heidrick & Struggles
- INSEAD and its Global Talent Competitiveness Index
- IMD and its World Talent Ranking Factors
- OECD and its Performance Indicators of Student Assessment (PISA)
- The World Bank and its indicators of Doing Business

While the talent management contributions of consulting firms are often more focused on the company and individual levels, some do relate to the country level as well. Notable examples of consulting firms including McKinsey, the Boston Consulting Group (BCG) and its Global Leadership and Talent Index (GLTI), the BCG Perspectives Reports, Deloitte, PWC, the Economist Intelligence Unit, Heidrick & Struggles and Adecco. Professional associations also contribute significantly to our understanding of macro talent management such at the World Federation of People Management (WFPMA), Society of Human Resource Management (US), CIPD (UK), and SHRI (Singapore).

So this chapter is organized to enable the reader to begin to understand how well countries are doing on many factors associated with the macro talent management namely, the macro environmental factors, the MTM processes and the MTM outcomes/consequences as depicted in Figure 1. And through the references and links provided in the references, hopefully this chapter can enable the reader to find many more relevant and specific details associated with Figure 1 than can be reported in this short chapter. In addition, we hope that these references and links can be used by others to describe others countries in addition to the United States being described here. Thus what is described here should be regarded as only the "tip of the iceberg."

The Macro Talent Management (MTM) Environment Factors

We begin with a general description of the macro environmental factors, which are captured in Figure 1 and offer data from the United States and occasional references to other countries for context and comparison.

<u>Governmental Policies, Programs and Activities and Non-Governmental Organizations</u>

We have mentioned previously that many national governments have been pursuing policies that focus upon upgrading and/or maintaining local capabilities and developing innovative capacities through their human talent. Perhaps those most directly associated with country level talent management are associated with educating and developing their populations and making it attractive for individuals from other countries to migrate to them (Martin, 2015). There are, however, more broadly focused characteristics of countries that are also important in making a country an attractive and welcoming place for talent and for MNEs seeking to locate their operations in a particular country. The same can be said for similar activities at the state and local governmental levels. Indeed, the INSEAD report on the *Global Talent Competitiveness Index* (2015) provides numerous examples of what state and local governments are doing.

Education Focused. Many organizations and consulting firms have been tracking and measuring just how well countries do in this regard, making it easy for countries to see how well they are doing and compare themselves to others. Their work can be found in yearly and bi-yearly reports from the World Economic Forum, INSEAD, the IMD, the OECD, the ILO, the World Bank and the Economist Intelligence Unit.

For example, the World Economic Forum (WEF) publishes the *Global Competitiveness Index* that compares and ranks more than 180 countries on 14 separate country-level pillars. Not all pillars relate directly to education and talent management, but four do: the 4th Pillar (Health and Primary Education); the 5th Pillar (High Education and Training); the 7th Pillar (Labor Market Efficiency); and the 12th Pillar (R&D Innovation). The details of these four are shown in Table 1. Details about the entire set of 14 country-level pillars are provided under our discussion of country competitiveness on social, economic, educational and political conditions, the more

broadly focused country characteristics mentioned above and are described in detail elsewhere (WEF: *The World Competitiveness Report 2016-2017*: 1-50).

Insert Table 1 About Here

The IMD publishes a *World Talent Ranking* report that compares and ranks countries on three education-focused factors, namely: investment, development, and appeal and readiness shown in Table 2. Each of these factors is comprised of several more specific sub-factors. For example and most relevant here, the investment and development factor reflects: total public expenditure on education; total public expenditure per pupil; pupil-teacher ratio (primary and secondary); apprenticeship; employee training; and female labor force (See pages 7-8 for a complete description of these three factors and sub-factors in the *IMD World Talent Report 2015*). A country is able to increase its overall country ranking by doing better on these sub-factors while doing the same or better on the other two factors.

Insert Table 2 About Here

The World Bank has its *Doing Business Index* that ranks countries on several broadly focused characteristics of a country for doing business, from ease of starting a company and tax rates to employability of the workforce, including its skill levels (*Doing Business 2016*). The broadly focused characteristics are shown in Table 3 and describe in detail elsewhere (*Doing Business 2016:* 264-265).

Insert Table 3 About Here

A more detailed ranking specifically relevant to talent management are the labor market regulations associated with hiring, working hours, redundancy rules, redundancy costs, and job quality as shown in Table 4 and described in detail elsewhere (*Doing Business 2016*: 266-67).

Insert Table 4 About Here

The Economist Intelligence Unit and the consulting firm of Heidrick & Struggles (2007; 2011) compile an index they call the *Global Talent Index*. And as the title suggests, all seven of its dimensions capture some aspect of talent and talent management, to include: 1) demographics, 2) compulsory education, 3) university education, 4) quality of the labor force, 5) talent environment, 6) openness; and 7) proclivity to attracting talent (Heidrick & Struggles, 2007; 2011). The education-focused dimensions are described and their scores for the US are shown in Table 5 and are described in detail elsewhere (*The Global Talent Index Report: The Outlook to 2015*: 19).

Insert Table 5 About Here

Schools and Universities. Overlapping with the above section entitled "Education Focused," this section focuses on a slightly different aspect of macro talent management. Within the current global environment of more knowledge-based economies and job opportunities, educational institutions have also emerged as important players in MTM. They play a rather significant role

in developing the human capital base throughout the early life of youth and young adults. This can be measured in the quantity and quality of primary, secondary and tertiary education that countries offer. This is described in more detail in the section of MTM processes.

For this discussion the focus is on providing educational opportunities to individuals of other countries to become attractive destinations for attaining further education. So for example, developed countries are forging global partnerships with other universities and exchange programs worldwide to train talent and obtain greater access to global talent pool (Wildavsky, 2010). Currently, in the United States there are approximately 1 million foreign students enrolled in a variety of higher educational institutions in 2013-2014 (*Institute of International Education*, 2015). These international students gain valuable global experience and often fill important positions upon returning to their home countries, or they may remain in the country of higher education such as the United States (Gareis, 2012). This can depend in part on the immigration policies in place to facilitate this.

Immigration Policies. It is clear from the above examples that talent development has been adopted as a national agenda by many countries (Guo & Al Ariss, 2015; Khilji et. al. 2015). Several countries have also been competing for the world's most skilled and qualified workers in an increasingly global labor market via their immigration policies. Kapur & McHale (2005) state, "official pronouncement on immigration policy has been couched in the language of 'national competitiveness', especially in knowledge-intensive sectors" (p. 37). This is clearly apparent in the immigration strategies adopted by countries such as Germany and Canada as well as the United States (Martin, 2013).

The United States is a popular destination attracting about 20 percent of the world's international migrants. Immigrants account for almost 15 percent of the total 324 million U.S. residents. Adding the U.S.-born children (of all ages) of immigrants means that approximately 80 million people, or one-quarter of the overall U.S. population, is either of the first or second generation (Zong and Batalova, 2015).

Overall, immigration is widely considered to be in the national interest, especially when done legally, since it permits individuals to better themselves as it strengthens the United States. (Martin 2013). The US specifically regulates talent-related immigration with various types of "visas", including the H1-B, the L-1 and T—1 visa categories as well as the use of "green cards". The quota limits in these visas may vary subject to Congressional action. Companies in the U.S. are often trying to get Congress to expand these visa categories in order to have the opportunity to hire highly educated students graduating from some of the best universities in country While visas are given for specific reasons and limited periods of time (with the individual still remaining a citizen of another country), "green cards" represent a more permanent form of admission to the United States and can lead to full status of citizenship. As with visas, the number of individuals able to obtain green cards for employment-based preferences is relatively small, about 15% (Patel, 2016). Future actions by the federal government could include making it easier for MNEs to bring in talented immigrants for longer assignments, although requires Congressional action that is not always assured.

Demographics and Mobility

In addition to the quality of the talent pool of countries that the country rankings introduced above provide, sheer quantity of the talent/population pool is also important for talent management in the global context (Chand & Tung, 2014; Khilji, 2012).

A majority of the future growth in the world population is expected to occur in developing or emerging economies (*Population Reference Bureau*, 2015). As a matter of fact, nearly half of the increment to the world population is estimated to come from only six countries; India (22%), China (11%), Pakistan, Nigeria, Bangladesh and the US (17% at approx. 4% each). This presents an interesting paradox because on one hand some countries in Asia Pacific, and Europe (including France, Spain, Japan and Germany) are aging fast and the proportion of the working-age people in the population is shrinking (McDonnell, Collings & Burgess, 2012). On other hand, in countries like India, Bangladesh and Pakistan, 31- 36% of the workforce is 14 years of age or below (Khilji, 2012; Khilji & Keilson, 2014). These countries are faced with the crisis of making them employable for an increasingly complex and global environment. By 2050, developed countries will not have enough workers to support the higher cost of their ageing populations. Developing countries with younger population will not have enough jobs. Khilji & Keilson (2014) argue that a global generational divide is likely to emerge as a workforce issue, where a majority of the young will be based or come from developing countries, and aging from the developed countries. As a developed country, Japan is already providing lessons in managing an aging talented workforce for other developed countries, such as those in Western Europe (Adachi, Ishida & Oka, 2015). As a developed country the United States appears to be an exception to population slowdown or actual decline. More specifically,

- Over the next four decades, as fertility rates are projected to continue to fall and modest increases are projected for the overall level of net legal international migration, the U.S. population is projected to grow, albeit more slowly in previous decades.

- Overall, the percentage of the total population that is under the age of 18 is projected to decrease from 23 percent to 20 percent between 2014 and 2060. Similarly, the working-age population is projected to decrease from 62 percent to 57 percent of the total population over the same interval. In contrast, the percentage of the population that is aged 65 and over is expected to grow from 15 percent to 24 percent, an increase of 9 percentage points. That said, approximately 25,000 new workers will enter the labor market in the developing world every day until 2020, and more than 200 million people globally will be out of jobs; yet, simultaneously, there is an expected shortage of 50 million high-talented job applicants over the coming decade. Overall the population is projected to continue aging, reflected in the growth of the percentage of the population that is in the older ages. Because MNEs are not required to retire employees at a certain age, e.g., 65 years, they can continue to employ older workers who are some of their most talented employees.

- Growth of the foreign-born population is projected to exceed that of locals, resulting in an increasing share of the future U.S. population that is foreign born. Specifically, the foreign-born population in the US is currently at about 14% and is expected to increase to 18% by 2065. It had be as low as 4% in 1965 before the passage of the *Immigration Act of 1965* (Patel, 2016). According to some, immigrants and their children are likely to be the major source for the growth in the US labor market: "The growth that comes from

(first-generation) immigrants and the second generation are going to be the only source of growth in working-age people," said Audrey Singer, an immigration and labor force expert at the Urban Institute. "We don't have a choice right now. We're depending on these two groups to be part of the next generation of workers" (Patel, 2016).

- Consequently, the US population is projected to become more diverse, as seen in the projected increases in the percentage of the population that is a minority—groups other than non-Hispanic White alone. By 2044, the United States is projected to become a plurality nation (US Census.gov). More specific information about the U.S. labor market is described below.

Diaspora and Returnees

Two other important factors in the global context of talent management are brain circulation and the efforts to maximize the diaspora effect (Saxenian, 2005; Tung & Lazarova, 2006). Both of these phenomena can have a big impact on governmental programs. For example, those countries with a large population that emigrated elsewhere (mostly to the United States and other developed countries) for better opportunities decades earlier, are luring back talented diaspora in order to benefit from their expertise and connections and develop younger talent effectively (such as China, Pakistan and India with their policies to bring back their diaspora for shorter to longer durations (Ragazzi, 2014; Khilji & Keilson, 2014). Because significant numbers of companies in the Silicon Valley depend up immigrants, continued success in the high tech industry, as well as other industries, could benefit from supportive immigration policies. Thus

while this discussion could be placed under governmental activities, it is placed here because of its singular importance.

Global and U.S. Labor Markets

A central factor in the global context of TM is the development of global labor markets over the past thirty years. Global labor markets have been created in part due to government-led initiatives that prioritize talent acquisition, retention, and development. These have been facilitated by technological advancements and ease of global communication. In turn, greater workforce mobility, extensive developments of diaspora and international migration (along with the brain circulation and knowledge flows) has exposed the macro implications and country effects of MTM. It is to be expected that both of these macro aspects of MTM will continue to evolve and transform over the next decade based on the characteristics and desires of the large generation of millennials (Generation Y, born 1981-1994) who are now in the position of having and wanting international assignments (PWC, 2015). As we continue to adopt a macro perspective in global talent management, it is important to review how global markets are evolving, particularly in view of a likely 'global generational divide" (Khilji & Keilson, 2014). That said, we also need to know the numbers of individuals who are entering the global labor market. Right now, it is estimated that approximately 25,000 new workers will enter the labor market in the developing world every day until 2020, and more than 200 million people globally will be out of jobs; yet, simultaneously, there is expected to be a shortage of around 50 million high-talented job applicants over the coming decade (*The Human Captial Report 2016*: 1).

It is also important to understand the unique labor market of each country. In the United States, while the labor market is growing, the labor force participation rate of 25-54 olds has

declined slightly in recent decades, particularly for American men. This has been due in part to an increasing number of men who have dropped out (reduced their participation rate) of the labor force (Applebaum, 2014). More than 20% of American men, about 20 million people between the ages of 20 and 65, had no paid work in 2015 (Chira, 2016). In addition, it has become harder and harder for men to find high-paying jobs, in part to the increased technology and automation, globalization and more jobs requiring higher levels of training and education (Appplebaum, 2014; Chira, 2016). And as a consequence, job loss appears to result in declining health that is now becoming a major reason prime-age men are working less and less (Krueger, 2016), thus creating a vicious circle that cries out for massive intervention and remediation.

In addition to knowing labor force participation rates and causes, it is important to be aware of the generation differences in the U.S. labor force. Yes, the U.S. has its share of millennials, but it also has a large number of traditionalists (born before 1946), baby boomers (born 1946-1964), baby busters (Generation X, born 1965-1980), and digital natives (Generation Z, born after 1994). Each of these generational groups is different in many ways and brings substantially different talent to the workplace (PWC, 2015).

National Culture

While having these data described above indicate where talent pools are likely to be found, additional information about the national culture of a country can be important in establishing a country's reputation as a good place for doing business. For example, culture characteristics such as work orientation, work ethics, comfort with uncertainty and the need for structure at work have been shown to be importance characteristics of a country's labor force, that is, its talent (Hofstede, 1980). There is also a plethora of evidence to suggest that national culture can help

determine the appropriateness of the many possible talent management policies and practices a company can use in a particular country. For example, talent management policies and practices by companies in the United States tend to reflect country culture characteristics of individualism, tolerance for uncertainty, achievement, relative egalitarianism for all to reach higher levels of success (Cooke, et al., 2014; Lanvin & Evans, 2014; 2015).

While the degree to which a strong relationship between country culture and a company's TM practices is linked to the effectiveness of specific TM practices remain to be explored, companies may still to choose to tailor their programs for managing talent with sensitivity to local country culture conditions, especially those that would be supportive of learning, knowledge, innovation, education and achievement (Cooke, et al, 2014).

Country Competitiveness on Social, Economic, Educational, and Political Conditions

Country competitiveness is the set of institutions, policies and factors that determine the level of productivity of a country and its level of talent management as indicated by our earlier discussion of the four pillars of the *Global Competitiveness Index* (WEF, 2016). The level of productivity in turns sets the level of prosperity that can be reached by the society. The WEF ranks these institutions (i.e., pillars) in over 150 countries. And while four pillars directly measure *indicators* of talent management, eight of the twelve pillars measure broader aspects of a country's institutional environment including social, economic and political ones. Hence the premise is that the country that scores the best on all 12 pillars is the most competitive and thus the most likely to be productive and provide prosperity for its citizens (Thus these are also used in our discussion of Outcomes in Figure 1). So efforts to boost the talent management pillars are in vain if not also accompanied by similar efforts to boost all the other pillars. Thus companies

that depend upon being able to develop the quality of the labor force in a country, such as the US, may hesitate to enter the country if it does not score well on the ten pillars of the WEF that describe the country's social, political, and economic conditions, in addition to the four additional pillars more related to talent management.. These eight pillars and their relative competitiveness scores are shown in Table 6.

Insert Table 6 About Here

A more specific analysis of country-level talent conditions is a study conducted by the WEF in conjunction with the LinkedIn Corporation (now a part of the Microsoft Corporation). It originally began in 2013 in a joint effort between the WEF and Mercer Consulting. The latest result of this collaboration is called *The Human Capital Report 2016.* The results of these reports for the United States are shown in Table 7. Together these reports highlight several aspects of country-level talent management (referred to also as "human capital"). First they indicate short term and longer term aspects of a country's policies and practices that exist to develop its human capital such as primary, secondary and tertiary education, and training programs in place at the workplace level. In capturing these, the reports reflect how well a country is developing and training its population for current jobs and for future, and relatively unknown jobs. So the reports help to measure how well a country has prepared and is preparing its population to in turn help its workforce and economy to be productive. Please note that the four pillars (also referred to in Table 7 as *Human Capital Index*) of education, learning and development are similar (both have the involvement of the WEF), but somewhat different from the four pillars described above that are part of the twelve pillars of the *Global Competitiveness*

Index. The *Human Capital Index* rank 130 countries on how well they are developing and deploying their human capital potential. The *HCIndex* assesses Learning and Employment outcomes across five distinct age groups to capture the full demographic profile of a country' human capital and talent (*The Human Capital Report 2016*: 2). The *Global Competitiveness Index* (GCI) ranks almost 150 countries on workforce health and primary education, high education and training, labor market efficiency and innovation for the country's workforce and economy. So while the *GCI* focuses on the country's economy, the *HCIndex* focuses more on the country's human capital development and potential for further development. As consequence, the rankings can be different: the U.S. ranked #3 on the overall *GCI* and #39 on health and primary education, #8 on higher education, #7 on labor market efficiency and #4 on innovation, but ranked #24 on the overall *HCI.*

Insert Table 7 About Here

MTM Functions and Processes

Now we move through our Conceptual Framework of MTM shown in Figure 1 to look more closely at what is important at the macro level of MNEs for TM. Broadly speaking, there are two broad categories of activities: Core functions and MTM Processes.

Core Functions

Here we include the essential functions of MTM at the country (also at the state and local) level as:

- talent planning,
- talent acquisition,
- talent development, and
- talent retention

Not surprisingly, these four functions flow rather easily from the macro environmental factors described in the preceding paragraphs. A plethora of research indicates that these core functions transfer/mediate/shape/modify the impact of the macro environmental factors on the MTM outcomes/consequences (Sparrow, et al., 2017; Tarique & Schuler, 2010; Scullion, Collings, & Caligiuri, 2010; Khilij, et al., 2015). For example, the diaspora effect (mentioned previously) at the country level is associated with a country's ability to plan, attract, and retain talent; and education-led initiatives are focused upon developing the human talent. And of course, the quality and quantity of a country's primary, secondary and tertiary educational institutions provide a good indication of the readiness and capability of its current and future workforce.

In addition, a country can add its talent pool by making itself an attractive place for talent from other countries to come and stay through such activities as its visa and immigration policies, and the quality of its governmental system and infrastructure, all characteristics of its institutions as described by the twelve pillars of the WEF shown in Table 6. Based on these results of the ranking of the WEF, the United States has an overall ranking of #3 in the world, although the specific four pillars for human capital are less favorably ranked as stated above. This ranking alone helps explain the ability of United States to develop, attract and retain talented employees from around the world. Of course, there are other activities that assist in making countries attract places for talent. These are described under the next section of Core MTM processes.

Core MTM Processes

Core MTM processes are the activities that influence how, when, why and if the environmental factors transfer/mediate/shape/modify the impact of the macro environmental factors on the MTM outcomes/consequences. These events might include:

- Knowledge spillovers
- Learning and knowledge sharing
- Institutional support
- Health and wellness
- Educational leadership
- Corporate strategy and leadership

Scholars have argued that talent produces knowledge flows, causes spillovers, and can be used for knowledge sharing as well as (organizational and national) learning. As discussed previously, it is clear that macro institutional (both governmental and nongovernmental) support, educational leadership, and corporate strategy and leadership can facilitate and/or hinder MTM in an environment. We present these aspects as MTM processes because they describe how talent relates to organizational and country level changes over time, identify patterns of activities and explain an observed relationship between talent and the desired outcomes of (for example) national competitiveness, innovation and economic development (Cooke et al., 2014; Liu, et al., 2011; Oettl & Agrawal, 2008).

It is worth repeating that both governmental/ NGO programs and organizational-level activities influence MTM processes. For example, greater global talent mobility stimulates international transmission of ideas (Agarwal, McHale, Kapur & Oettl, 2011; Kapur & McHale, 2005; Liu, et al., 2011), produces knowledge flows (Di Maria & Lazarova, 2009; Carr, Inkson, & Thorn, 2005), enhances learning (Furuya, Stevens, Bird, Oddou. & Mendenhall, 2009) and improves efficiency of the innovation process (Oettl & Agrawal, 2008). As people move and interact across organizations and societies, they provide greater access to knowledge and reduce

the need to recreate knowledge that already exists elsewhere. They also gain diverse experiences hence serve as a prime source of learning for organizations and societies (Di Maria & Lazarova, 2009). The US seems to do well in facilitating the flow of individuals across the world, especially through the facilitation of expatriates around the world.

Helping to quantify some of these characteristics of the Core MTM Processes are the *Human Capital Reports*. As described above, the WEF publishes the *Human Capital Reports* which focus exclusively on country-level talent management. In these reports, introduced in the discussion on "Country Competitiveness on Social, Economic, Educational and Political Conditions," the WEF ranks countries on four pillars including: education, health and wellness, workforce and employment, and enabling environment. These reports also describe the talent management capabilities in four separate age categories. These four pillars and four age categories are shown in Table 7. They help measure the Core MTM Processes and suggest how countries including the United States, can improve on its talent management rankings.

Insert Table 7 About Here

MTM Outcomes: Evaluations and Rankings

The outcomes/consequences of MTM, as shown in Figure 1, are many. Sparrow, Scullion and Tarique (2014) suggest that it is possible to think of them of occurring over time, or in sequence. For example, the outcomes of educational attainment, jobs, talent mobility, immigration flows and diaspora utilization can be considered first level outcomes that result from the macro

environmental factors and the MTM processes. These outcomes are directly related to talent within the country (in terms of its development, retention and utilization). In addition, there are several second level outcomes including, talent rankings, country attractiveness, productivity, innovation, economic development and competitiveness. These second level outcomes are more cumulative in nature, are associated with the strengthened economies, and are the direct result of effective first level outcomes. In other words, if a country has managed to enhance educational attainment of its people, create jobs and capitalize on human capital global mobility, these can have a positive impact on enhancing its national innovative capacities, productivity and country competitiveness, indicators of a country's level of talent management (Lanvin & Evans, 2014; 2015).

Some relevant material is the exhaustive work of INSEAD in the *Global Talent Competitiveness Index (GTCI)* which focuses exclusively on country-level talent management. As mentioned previously, the *GTCI* ranks countries on 6 pillars including: enabling, attracting, growing, retaining, vocational and global knowledge. The items from the *GTCI* most specifically related to education are contained in the pillars for vocational education and global knowledge. As shown in Figure 1, we use these two pillars as outcomes as shown in Table 8, specifically educational attainment. For each of these two pillars there are almost ten sub-pillars. It is worth taking a look at both *GTCI* reports in full to appreciate the educational information in these two pillars (Lanvin & Evans, 2014; 2015)

Insert Table 8 About Here

The remaining four of these pillars have been discussed as characteristics of the macro environment under the heading of "Country competitiveness on social, economic, educational and political conditions", but we have also included them here under the "second-level outcomes," specifically as "talent rankings" and "competitiveness" (shown in Table 9).

Insert Table 9 About here

In another measure of first-level outcomes, the OECD ranks countries on their levels of educational attainment for many age categories of their citizens. One of its most famous rankings is the *Program for International Student Assessment (PISA)*, which ranks 15-year students on the basis of the achievement in math, sciences and reading. The United States does relatively poorly on the PISA scores as shown in Table 10. This collaborates the relatively low ranking that the United States receives on its primary and secondary education. Many attempts are being made to improve these two levels of education. Presidents Bush and Obama have had national campaigns with their "No Child Left Behind" and "Race to the Top", but thus far the achievements are slow in coming. Attempts are also being made closer to where this education is delivered, namely at the state and local levels (www.ed.gov; *New York Times*, 2016: 10).

Insert Table 10 About Here

As referenced earlier in this chapter (Tables 3 and 4), The World Bank has its *Doing Business Index* that ranks countries on several aspects of doing business, from ease of starting a company and tax rates to employability of the workforce, including its skill levels (*Doing Business 2016*). Thus the Index can be regarded as a good measure of the second-level outcomes shown in Figure 1.

The Economist Intelligence Unit and the consulting firm of Heidrick & Struggles (2007; 2011) compile an index they call the *Global Talent Index.* And as the title suggests, all seven of its dimensions capture some aspect of talent and talent management, to include: 1) demographics, 2) compulsory education, 3) university education, 4) quality of the labor force, 5) talent environment, 6) openness; and 7) proclivity to attracting talent as illustrated in Table 5 (Heidrick & Struggles, 2015). As described, these dimensions can also be placed in earlier in our Framework, specifically under the "macro environmental factors". These dimensions also appear to overlap with some of the early measures of a country's talent/human capital, such as the *Human Capital Report* pillars (Table 7). Thus, the authors of the following chapters in this book might choose to interpret and utilize these dimensions and reports slightly differently.

Implications/Applications of Figure 1

So why potentially interesting, may we ask what is the evidence that any of aspects of Figure 1 actually have practical implications/applications? Absolutely! In fact the summer 2015 issue of the *New European Economy* contains many examples of how countries, states, cities and regions in the United States and elsewhere have become magnets for foreign companies and international organizations to set up base. An example of one consequence of the rankings such as the GTGI

Index and the GCI Index of having an innovative and flexible workforce, is that the United States is the top destination for foreign investment (*Organization for International Investment,* 2016). Of course, this result does not occur in isolation of other macro factors such as a strong institutional framework, a high level of business sophistication and an investment-friendly legal system and financial market. And as a consequence of these factors within the United States, individual states and localities can further enhance their specific situations to entire foreign investors to locate in their areas. For example, Ohio is one of the top ten most competitive states. More than 3,400 organizations from 42 countries have set up global headquarters in Ohio. And Licking County that surrounds the capital area of Columbus is widely recognized as a leading center for manufacturing and technology-enabled expansion (Cullen, 2015). More than 50 of the *Fortune* 500 companies has a presence in Licking County, in the processing gaining access to a highly educated workforce. Licking County is focused on STEM-related employers and a willing workforce with developed technical skills developed in part through cutting-edge training and development programs offered through the Career and Technology Center of the county, the Central Ohio Technical College, the Ohio State University and Denison University (Cullen, 2015). Further examples of what specific regions, countries, cities, provinces and towns are doing can be accessed through Lanvin and Evans (2013; 2014; 2015) and Evans and Lanvin (2015).

While this example of Ohio and Licking County are brief, they are offered here to illustrate the implications of the MTM Framework shown in Figure 1 This example also support the broader implication of the various ranking results for the US regarding education, particularly primary and secondary education. Whether measured by the PISA scores (rankings) the HCIndex scores, the GTCI scores, or the GCI scores, the US needs to improve its quality of

primary and secondary education. The US Department of Education has just recently released it "Final Teacher Preparation Regulations" that outlines a variety of initiatives to encourage state and local governments to improve secondary and primary education. Of course even more specific initiatives can be very helpful as well. Work by the consulting firm Accenture and the non-profit group Girls Who Code, is aimed at identifying and improving the factors that make it more attractive for young girls to go into computer programs in primary and secondary schools and then to higher education (Guynn, 2016). And as these various initiatives expand, it is more likely that success in higher education, technical education and continuous education will also improve (Chira, 2016). While perhaps not likely to improve it to the level of Finland, Switzerland or Singapore in the near term because of the complexity, it signals a start (*New York Times*, 2016: 10). Without these educational changes, the US will continue to fall short of rightfully developing and utilizing its talent. And over the longer term the US may lose its level of competitiveness.

In addition to major improvements in education, it is argued by many that prime working-age men's health now needs to get more attention (Krueger, 2016). Surveys indicate that 40% of these men not in the labor force have pain that prevents them from returning to work, in contrast to only 19% of the men who are in the workforce (Krueger, 2016).

But making significant improvements in primary and secondary education and individual health is a complex undertaking requiring the contributions and engagement of many. This quote from Klaus Schwab, Founder of Executive Chairman of the World Economic Forum perhaps captures the essence of the situation facing the US:

> "Talent, not capital, will be the key factor linking innovation, competitiveness and growth in the 21st century. To make any of the changes necessary to unlock the world's

> talent --- and hence its growth potential--- we must look beyond campaign cycles and quarterly reports. Dialogue, collaboration and partnerships between all sectors are crucial for the adaptation of educational institutions, governments, and businesses." *Human Capital Report 2015*: 2.

Future Research Directions

We would like to offer a word of caution here. The conceptual framework presented in Figure 1 should not be viewed as being linear or simple relationships. Scholars argue that societies and organizations are complex social systems (Anderson, 1999). A rapid pace of globalization has also added new elements of complexity to the human dynamics (Lane, Mazenvski, Mendenhall, & McNett, 2004). Accordingly, the MTM model should be viewed as being made up of large number of parts that interact in a non-simple and linear manner (Phene & Tallman, 2012; Simon, 1962). Applying this understanding to macro MTM presents it as a system that requires interactions between different partners on a number of issues and levels, representing varying level of complexity. We would also like to mention that the proposed framework doesn't capture an exhaustive list of trends, outcomes and processes (Sparrow, et al., 2017). As scholars continue to explore the multiple aspects of macro MTM as a phenomenon, they are likely to unravel and add other issues to this framework, for example, country levels of engagement (e.g., Blessing & White, 2013).

What we have tried to do here is offer a framework that represents a large number of aspects of what many authors consider the macro MTM and illustrate as many of these aspects as possible from growing body of country level research, using the United States as an example of how this could be done (Khilji & Schuler, 2017; Evans & Lanvin, 2015). We admit that this is an early

attempt to do this and as such suggest to other authors to take countries and try to fill in as much relevant country specific information related to Figure 1 from the many established secondary sources used here, as others that the authors may uncover, that might be unique to their countries and also general to all. A large set of websites several used in this chapter, and several not referenced here, but that could be useful, are found at the end of this chapter under "Website Links".

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Figure 1

Talent Management in Global Context: A Conceptual Framework of Macro Talent Management (MTM)

Adapted from S.E. Khilji and R. S. Schuler, "Talent Management in the Global Context," a chapter in D. Collings, K. Mellahi, and W. Cascio (eds.) *Oxford Handbook of Talent Management*, Oxford Press (Oxford, England, 2017).

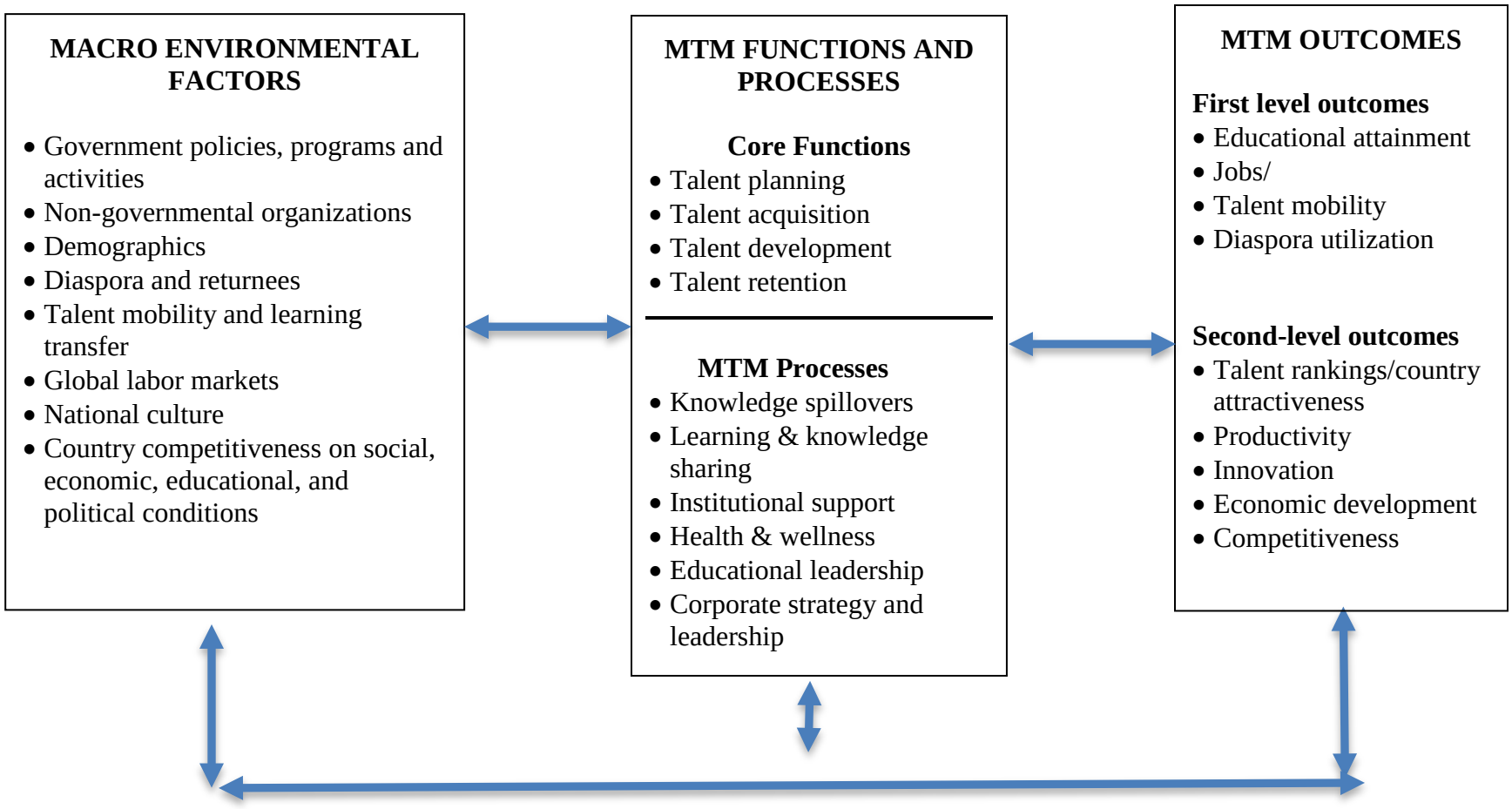

Table 1: Global Competitiveness Index Pillars related to Education and Talent management.

This index looks at the effect of several macro level factors which create the conditions for competitiveness. The overall US Ranking is 3/140 (economies).

Pillar	Description	US Rank
Health and Primary Education	This pillar examines the investments in the provision of health services, and the quantity and quality of the basic education	46/140
High Education and Training	This pillar measures secondary and tertiary enrollment rates, and the quality of education	6/140
Labor Market Efficiency	This pillar looks at the efficiency and flexibility of the labor market	4/140
Innovation	This pillar focuses on technological innovation	4/140

Source: Schwab, Klaus, et al., 2016-2017. *The Global Competitiveness Report 2016-2017.* World Economic Forum: Davos, Switzerland.

https://www.weforum.org/reports/the-global-competitiveness-report-2016-2017-1/

Table 2: IMD World Talent Ranking.

This ranking compares and ranks countries on three factors: investment, development, and appeal and readiness. Overall US Ranking is 14/61 economies

Factor	Description	US Ranking
Investment and development	This factor examines the investment in and development of home-grown talent	23/61
Appeal	This factor focuses on the ability of a country to tap into the overseas talent pool	2/61
Readiness	This factor inspects the context of the talent pool (e.g., the growth of the labor force and the quality of the skills available)	55/61

Source: IMD World Talent Report by the IMD World Competitiveness Center (2015). Institute of Management Development.
http://www.imd.org/wcc/news-talent-report/

Table 3: World Bank's Doing Business Index

This index looks at 10 areas and examines the extent for local entrepreneurs to start and run a small to medium-size business when complying with relevant regulations. Countries are ranked on their ease of doing business. A high score suggests that the regulatory environment is supportive of establishing a new business. Overall US Ranking is 6/189 Economies

Area	US Ranking
• Starting a Business	17/189
• Dealing with Construction Permits	23/189
• Getting Electricity	15/189
• Registering Property	45/189
• Getting Credit	19/189
• Protecting Minority Investors	4/189
• Paying Taxes	15/189
• Trading Across Borders	38/189
• Enforcing Contracts	33/189
• Resolving Insolvency	13/189

Source: Doing Business, Measuring Business Regulations (2016), World Bank Group. (http://www.doingbusiness.org/rankings)

Table 4 –Items from the Doing Business Ranking Index specifically relevant to "labor market regulations" are grouped into 5 categories as shown below. Within each category are many specific dimensions. There are 37 dimensions in total in these 5 categories.

http://www.doingbusiness.org/data/exploretopics/labor-market-regulation

http://www.doingbusiness.org/reports/global-reports/~/media/GIAWB/Doing%20Business/Documents/Annual-Reports/English/DB16-Chapters/DB16-Labor-Market-Regulation.pdf

See this website to see all the details for the 5 categories of labor regulations listed below.

Hiring: 5 dimensions of hiring, including existence of fixed term contracts; length of those contracts; minimum wage; value added per worker; and incentives
Working hours: 9 dimensions of hours, including maximum working days/week; premium for night work; premium for weekly rest; premium for overtime; restrictions on night work; etc.
Redundancy rules: 9 dimensions of rules, including legal dismissal; third party notification of dismissal; priority rules for redundancy; rules for re-employment, etc.
Redundancy costs: 2 dimensions of costs, including weeks of pay for dismissal; notice period for dismissal
Job quality: 12 dimensions of quality, including equal pay for equal work, on-the-job training, paid/unpaid maternity leave, sick leave days, gender nondiscrimination in hiring, etc.

Table 5: Global Talent Index
This index benchmarks countries on their capacity for developing, attracting and retaining talent. This is based on data indicators from various thematic categories: Demographics, Compulsory education, University education, Quality of the labor force, Talent environment, Openness, and Proclivity to attracting talent. The US is ranked # 1 in both time periods

Global Talent Index 2011 *Top 5 Countries with overall rank*	*Global Talent Index 2015* *Top 5 Countries with overall rank*
United States	United States
Denmark	Denmark
Finland	Finland
Norway	Sweden
Singapore	Norway

Source: The Global Talent Index Report: The Outlook to 2015. Heidrick & Struggles and The Economist Intelligence Unit.
http://www.economistinsights.com/sites/default/files/downloads/GTI%20FINAL%20REPORT%205.4.11.pdf
http://www.globaltalentindex.com/pdf/Heidrick_Struggles_Global_Talent_Report.pdf

Table 6: Global Competitiveness Index Pillars

This index looks at the effect of several macro level factors which create the conditions for competitiveness. The overall US Ranking is 3/140 (economies).

Pillar	Description	US Rank
Institutions	This pillar examines the institutional environment which includes the legal and administrative framework.	30/140
Infrastructure	This pillar looks at the infrastructure of an economy	12/140
Macroeconomic environment	This pillar examines the stability of the macroeconomic environment of a country	113/140
Goods market efficiency	This pillar analyzes efficiency of the goods markets	16/140
Financial market development	This pillar examines the well-being of the financial and economic activities.	9/140
Technological readiness	This pillar looks at the agility with which an economy adopts existing technologies	16/140
Market size	This Pillar inspects the size of the markets	1/140
Business sophistication	This pillar looks at the sophistication of business practices	4/140

Source: Schwab, Klaus & Sala-i-Martin, Xavier. (2015-2016). The Global Competitiveness Report 2015-2016. World Economic Forum. http://www3.weforum.org/docs/gcr/2015-2016/Global_Competitiveness_Report_2015-2016.pdf

Table 7: Human Capital Indicies Using Four Pillars and Five Age Categories

This index looks at the effect of several macro level factors which create the conditions for human capital development and utilization. The overall US Ranking is 17th out of 130 countries.

Pillar	Description	US Rank
Education	This pillar has indicators relating to qualitative/quantitative aspects of primary, secondary, tertiary levels for present and future workforce.	11/130
Health and Wellness	This pillar contains indicators of a population's physical/mental health.	43/130
Workforce and Employment	This pillar is designed to quantify the experience, talent, knowledge and training of the country's people.	4/130
Enabling Environment	This pillar captures the legal framework and infrastructure.	16/130
0-14 year olds	This pillar captures the enrolment rates, educational attainment, quality of education, rate of child labor.	40/130
15-24 year olds	This pillar looks at educational attainment rate and quality, unemployment rate and skills	7/140
25-64 year olds	This Pillar captures educational attainment rates, workplace learning, skills and ease of finding skilled jobs.	15/140
65 years old and over	This pillar looks at educational attainment rates, unemployment rates and healthy life years beyond 65.	16/140

Source: A combination of *The Human Capital Reports* from 2013, 2015 and 2016 (See website references listed below). First four pillars from the 2013 report.

Table 8: The Global Talent Competitiveness Index. Two Pillars more applicable for Education

This annual index benchmarks over 100 countries to examine each country's ability to compete for talent. More specifically, these two pillars seem to reflect outcomes of a country's macro-environment, function and processes.

Pillar	US Rank
Labor and Vocational Skills	22/109
Global Knowledge skills	3/109
Grow	We have included this in Table 8, the input side because of the *opportunities* a country provides learning rather than an outcome.

Source: Lanvin, Bruno and Evans Paul (2015). The Global Talent Competitiveness Index. Talent Attraction and International Mobility 2015-16. INSEAD, Adecco Group, and the human Capital Leadership Institute.
http://global-indices.insead.edu/gtci/documents/INSEAD_2015-16_Full_Book_Ebook.pdf

Table 9: The Global Talent Competitiveness Index (GTCI) Four Pillars more applicable for MTM

This annual index benchmarks over 100 countries to examine each country's ability to compete for talent. More specifically, the index looks at each country's ability to grow, attract and retain talent. The overall US Ranking is 4/109 (economies). Please note that these four pillars refer to the input side of the GTCI. There are two pillars (vocational education; and global knowledge) that seem more applicable in our description of outcomes and are presented in Table 9.

Pillar	Description	US Ranking
Enable	This pillar examines the regulatory landscape, market landscape and the business-labor landscape.	9/109
Attract	This pillar focuses on external openness and internal openness.	14/109
Grow	This pillar describes *opportunities* for formal education, lifelong learning and access to growth.	3/109
Retain	This pillar evaluates sustainability and lifestyle.	2/109

Source: Lanvin, Bruno and Evans Paul (2015). *The Global Talent Competitiveness Index. Talent Attraction and International Mobility 2015-16.* INSEAD, Adecco Group, and the Human Capital Leadership Institute of Singapore.
http://global-indices.insead.edu/gtci/documents/INSEAD_2015-16_Full_Book_Ebook.pdf

Table 10: Programme for International Student Assessment (PISA)

This metric examines the extent to which 15-year-old students have acquired important knowledge and skills that are essential for full participation in modern societies.

Pillar	Mean Score in PISA 2012 (Mathematics)	Mean Score in PISA 2012 (Reading)	Mean Score in PISA 2012 (Science)
OECD Average	494	496	501
USA	481	498	497
Shanghai – China Highest Ranked Country	613	570	501
Peru Lowest Ranked Country	368	384	373

Source: PISA 2012 Results in Focus: What 15-year-olds know and what they can do with what they know. OECD
http://www.oecd.org/pisa/keyfindings/pisa-2012-results-overview.pdf

WEBSITE LINKS REFERRED TO IN THIS CHAPTER

http://knowledge.insead.edu/talent-management/global-talent-competitiveness-index-2932

This site is for the Global Talent Competitiveness Index (GTCI) of INSEAD. This has six pillars (enabling, attracting, growing, retaining, vocational knowledge and global knowledge) and approx. indicators per pillar. Covers 103 countries.

http://www.imd.org/wcc

This site is for the World Talent Report and Rankings from IMD. It has descriptions of three country-level talent factors, namely investment and development, appeal and readiness.

https://www.weforum.org/reports/the-global-competitiveness-report-2016-2017-1/

This site is for the World Competitiveness Index that ranks 183 countries of the world on various factors for competitiveness on 14 pillars, 4 of which are directly related to country level talent management. The other 10 factors are supportive, macro level factors at the country level.

https://www.weforum.org/reports/the-human-capital-report-2016/

This site is from the World Economic Forum in conjunction with LinkenIn. The first report was in 2013, and then 2015. It is an excellent source of information about how 130 countries teach, train and develop their human capital. It provides many example of what countries are doing to help improve the extent to which they use and develop their human capital potential for the future .

http://www.globaltalentindex.com/pdf/Heidrick_Struggles_Global_Talent_Report.pdf

This report provides benchmark information on the capacity of countries for developing, attracting and retaining talent. These aspects of countries overlap with those from the

WEF and INSEAD and IMD. But each is unique and warrants inclusion here so that the researcher can delve more deeply in each of them.

Also see the reports for 2013 and 2015:

http://www3.weforum.org/docs/WEF_HumanCapitalReport_2013.pdf

http://www.mercer.com/content/dam/mercer/attachments/global/Talent/WEF_2013_Human_Capital_Report.pdf

These sites provide a nice description of the development of the Human Capital Talent Report. Over these reports the focus and coverage varies, but remains very complementary and useful. So it is good to review all three of these reports. The examples that are provided vary and thus provide additional insights.

https://www.bcgperspectives.com/content/articles/leadership_talent_human_resources_global_leadership_talent_index/

This site has the Boston Consulting Group's (BCG) Global Leadership and Talent Index (GLTI). This looks at the relationship between firm financial performance and talent and HR management activities (so one level below the country-level analysis).

http://www.ilo.org/global/statistics-and-databases/lang--en/index.htm

This site has a great deal of data and statistics on the nature and quality of jobs being created and the talent needed for them across more than 140 countries. Good information on migration across countries as well.

http://www.oecd.org/pisa/keyfindings/

This site has the educational attainment levels of countries on three major categories: math, science and reading.

http://www.doingbusiness.org/reports/global-reports/~/media/GIAWB/Doing%20Business/Documents/Annual-Reports/English/DB16-Chapters/DB16-Labor-Market-Regulation.pdf

This site provides information related to a country's regulations that impact how companies can utilize its human capital/talent if they wish to operate in their country.

Additional websites for further country-level data not used in this chapter but of potential relevance to MTM:

- The corruption perception index: http://www.transparency.org/cpi2015
- The global cities index: https://www.atkearney.com/research-studies/global-cities-index/2015
- Foreign Direct Investment (FDI) Confidence Index: https://www.atkearney.com/research-studies/foreign-direct-investment-confidence-index/2015
- The commitment to Development Index? See http://www.cgdev.org/cdi-2015
- Global Connectedness Index 2014: http://www.dhl.com/en/about_us/logistics_insights/studies_research/global_connectedness_index/global_connectedness_index.html#.VvgijfkrJ1N
- Best Countries for Business: http://www.forbes.com/best-countries-for-business/list/
- Country Brand Index: http://www.futurebrand.com/foresight/cbi
- Happy Planet Index: http://www.happyplanetindex.org/data/

- OECD Indicators of Employment Protection:

  http://www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection.htm

- Web Index: http://thewebindex.org/