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**Human Capital Development Practices and Career Success:
The moderating role of country development and income inequality**

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Summary

Employees can enhance their human capital through participation in organizationally-sponsored development activities. However, there is little research on the extent to which the effects of such practices vary depending on national context. Adopting a human capital theory perspective, we hypothesized a positive relationship between human capital development practices experienced in one's career and objective and subjective career success (salary level and perceived financial success respectively), and tested two country-level institutional factors (country development and income inequality) as moderators. Results from our multilevel analyses of a large-scale sample of over 8,800 managers and professionals from 28 countries showed that, as expected, experiencing a larger number of different human capital development practices was associated with higher salary level and greater perceived financial success. The relationship between development practices and salary level was stronger in the case of developed countries and weakly negatively affected for countries with higher income inequality. The relationship between development practices and perceived financial success was weaker for developed countries and unaffected by income inequality. Our research thus identifies boundary conditions to the application of human capital theory in different contexts and contributes to the comparative careers literature by showing that institutional factors affect the outcome of organizationally-sponsored development activities.

Keywords: human capital, career success, development practices, country development, income inequality

Introduction

The landscape in which individual careers unfold has shifted from single to multiple organizations (Barley, Bechky, & Milliken, 2017; Jung & Takeuchi, 2018; Van den Born & Van Witteloostuijn, 2013). This has caused many to ask whether *organizations* have much to gain from investing in employee development activities (Benson, Finegold, & Mohrman, 2004; Nelissen, Forrier, & Verbruggen, 2017). An equally important but comparatively overlooked issue has to do with what *employees* participating in such organizationally-sponsored activities may or may not gain in terms of their own human capital development. A related question concerns the extent to which any human capital gains are universal or dependent on country context.

Organizationally-sponsored developmental activities (henceforth referred to as human capital development practices, or HCDPs) include, amongst others, career planning, training, assessment centers, performance appraisal, mentoring, and job rotations. Employees can participate in different HCDPs as they move from job to job within and across organizations (Garavan, Morley, Gunnigle, & Collins, 2001; Jung & Takeuchi, 2018). Participating in these practices represents an opportunity for individuals to accumulate human capital. Human capital theory (Becker, 1960, 1962, 1994) has focused primarily on the effects of training and formal education on objective outcomes (Marginson, 2019; Sweetland, 1996), resulting in a somewhat narrow view of the potential benefits of human capital accumulation (Coff & Kryscynski, 2011; Wößmann, 2003). Since most individuals place great emphasis on both objective careers success (CS), such as promotions and salary (Dries, Pepermans, Hofmans, & Rypens, 2009; Judge, Klinger, & Simon, 2010), and subjective CS, such as career satisfaction (Greenhaus, Parasuraman, & Wormley, 1990), it is important to address the question if and to what extent individual (objective and subjective) CS is related to experiencing multiple HCDPs. Further, the majority of career scholars who have considered

the effects of HCDPs on both objective and/or subjective CS have examined the impact of single practices (for a review, see Bagdadli & Gianecchini, 2019). While such focus can be informative for isolating the effects of a specific practice, it cannot capture the effects of individuals being exposed to an array of varied development practices as they progress in their careers (Coff & Kruscynski, 2011; Sonnenfeld, 1989).

There is also a dearth of empirical work that examines the contextual boundaries of the human capital investments–outcomes link (Tan, 2014), despite repeated calls for attention to the role of context in human capital theory. For example, Bonal (2016, p. 100) contends that human capital theory “ignores the functioning of the institutions (both education and the labor market).” Similarly, Hayek and colleagues (2016, p. 929) conclude that the theory “does not take into account the political, socio-cultural, and institutional context in which the investments in human capital are embedded.” In addition, Ó Riain (2011) asserts that when analyzing human capital accumulation, the individual and institutional dimensions should be treated as interdependent, and calls for an examination of interactions between these dimensions. Career studies that draw on human capital theory have been placing increased attention on the role of country-level institutional factors in CS perceptions (Andresen et al., 2020; Kaše et al., 2020; Mayrhofer, Meyer, & Steyrer, 2007). However, these studies have not yet examined the moderating effects of context on individual participation in multiple HCDPs and CS.

Therefore, this paper addresses two main questions: 1) Is experiencing multiple HCDPs throughout one’s career associated with higher objective and subjective CS? 2) Is the effect of HCDPs on objective and subjective CS moderated by institutional factors? We examine these questions by developing and testing a multi-level model using a large, multi-country dataset of employees in managerial and professional positions.

We contribute to human capital theory and careers research in two main ways. First,

we extend the explanatory power of human capital theory by examining the cumulative effects of multiple different development practices, and through the addition of subjective CS. Looking at how having experienced multiple different HCDPs relates to various career outcomes not only better reflects employees' career realities, but also contributes to a better understanding of the potential return generated by a variety of HCDPs (Ployhart, Nyberg, Reilly, & Maltarich, 2014). In doing so, we advance career research beyond testing the effects of a single HCDP practice on CS (Bagdadli & Gianecchini, 2019). By considering both objective and subjective CS, we address criticism about the over-reliance on objective outcomes of human capital investments (e.g., Coff & Raffiee, 2015; Jensen, 2010), and contribute to the small body of empirical work that also includes the effects of investments in individuals' human capital on subjective outcomes (for reviews, see Botelho & Pinto, 2004; Ng, et al., 2005; Stumpf & Tymon, 2012).

Second, by examining the interactions between the individual and the country level, we identify potential boundary conditions between human capital accumulation and CS. In this way, we contribute to human capital research by addressing the limitations associated with "methodological individualism" (Tan, 2014, p. 413) that emphasizes human agency over social structures (Hayek, Thomas, Novicevic, & Montalvo, 2016). By studying factors that influence CS "from a contextual macro resource perspective" (Spurk et al., 2019, p. 61), we also contribute to the emergent stream of comparative careers research (Mayrhofer et al., 2007; Mayrhofer, Smale, Briscoe, Dickmann, & Parry, 2020; Tomlinson et al., 2018).

Theory and Hypotheses Development

Human Capital Theory and Individual Career Success

We draw on human capital theory (Becker, 1962, 1994, 2002) to explain how investments in career management enhance individual CS. Human capital is the "knowledge, information, ideas and skills of individuals" (Becker, 2002, p. 4). In particular, *knowledge and ideas* are

the cognitive prerequisite to perform a job activity; *skills* capture the individual's capabilities and proficiency to perform tasks; and *information* concerns a contextualized understanding of the business and labor market in terms of, for instance, wages and employment opportunities (Becker, 1962). Such human capital is relevant for developing one's career and achieving individual CS (Ng et al., 2005; Spurk et al., 2019; Wayne et al., 1999).

The central premise of human capital theory is that “education and training are the most important investments in human capital” (Becker, 1994, p. 17). People with more and better quality education are expected to have more advanced knowledge, skills, and information and a higher capacity to learn and build from this base (Judge et al., 2010). Through training, individuals both learn new skills and perfect old ones. Even though company training is typically interpreted as a proxy for the acquisition of firm-specific skills (Doeringer & Piore, 1971), much company training “is neither completely specific nor completely general” (Becker, 1994, p. 40), and thus it can provide knowledge, skills, and information that may be useful to many firms and across different contexts.

Human capital theory defines education and training rather broadly and thus offers the possibility to have a more fine-grained examination of development practices that nurture individual human capital (Hatch & Dyer, 2004; Wößmann, 2003), such as lateral moves, career counselling, assessment and development centers, performance appraisals (including peer and subordinate), job postings, career planning, mentoring, and networking. Human capital theory is the dominant theoretical approach, albeit not the only one, used by most studies analyzing the effects of these practices on career success (Bagdadli & Gianecchini, 2019; Spurk et al., 2019).

HCDPs are shown to increase individuals' human capital – knowledge, information, ideas and skills – in different ways. Specifically, lateral moves allow individuals to acquire new skills and business knowledge by tackling new jobs and situations (Campion, Cheraskin,

& Stevens, 1994) and “from a human capital perspective, may be viewed as an investment in general management skill and knowledge breadth” (Ellis & Heneman III, 1990, p. 7). Career counselling can be particularly effective in increasing information as counselors assist individuals in clarifying their career aspirations and occupational choices (Verbruggen, Sels, & Forrier, 2007). Assessment and development centers provide employees with information about their strengths, weaknesses and potential, and are the basis for employees’ development for future roles (Boswell & Boudreau, 2002). Similarly, performance appraisals allow employees to understand which aspects of their knowledge and skills need improvement (Oh & Lewis, 2013). Job postings and career planning contribute to individuals’ human capital and give information and insights into prospective career moves within the organization or elsewhere, while helping organizations anticipate qualitative and quantitative human capital shortages (De Vos & Dries, 2013). Finally, mentoring and networking provide information and resources that individuals can utilize to better navigate organizational culture and politics, to increase their reputation and status and to obtain visibility for their achievements (Seibert, Kraimer, & Liden, 2001). As suggested by Kammeyer-Mueller and Judge (2008), the human capital perspective is particularly relevant in describing the career functions of mentoring because mentoring includes actions aimed at providing protégés with human capital enhancement opportunities, and because mentors deliberately seek capable individuals as protégés to reciprocate their assistance.

Thus, human capital theory provides a broad explanation of the mechanisms connecting HCDPs to career success, theoretically warranting their aggregation. At the same time, HCDPs supply differentiated knowledge, skills, and information. Following Ployhart (2014), we argue that exposure to different practices will be more beneficial for an individual’s human capital than repeatedly experiencing the same practice. In addition, provided that the knowledge, skills, and information acquired through HCDPs are not

exclusively firm-specific, it is likely that individuals can accumulate human capital across their entire career (Jung & Takeuchi, 2018) and leverage it from one organization to another (Groysberg, McLean, & Nohria, 2006).

Drawing on these arguments, we hypothesize that participation in a larger number of different HCDPs throughout one's career likely generates higher levels of human capital, which are associated with greater job performance and potential to succeed in other roles (Becker, 1994; Judge et al., 2010). Since performance and promotions are key factors driving financial rewards (Barkema & Gomez-Mejia, 1998; Ferris, Buckley, & Allen, 1992), we predict as follows:

Hypothesis 1a: Having experienced a larger number of different HCDPs throughout one's career is positively related to objective career success in the form of salary level.

Human capital studies have been criticized for their over-reliance on objective outcomes of human capital investments (e.g., Coff & Raffiee, 2015; Jensen, 2010). This limitation applies to empirical research more than theoretical development (for an exception, see Botelho and Pinto (2004)). Becker (1994, p. 11) made the connection with subjective outcomes explicit when he described human capital as “activities that influence future monetary and psychic income (i.e., the nonmonetary or nonmaterial satisfactions that accompany an occupation or economic activity) by increasing resources in people”. Such “psychic income” is very closely related to the notion of subjective CS in career studies.

Subjective CS represents individual judgments on his/her own career attainments (Ng, Eby, Sorensen, & Feldman, 2005). The majority of past studies have tended to operationalize subjective CS as *general* career satisfaction (Greenhaus, Parasuraman, & Wormley, 1990). More recently, studies are distinguishing among several facets of subjective CS and argue for separate measurement of such facets (for a review, see Shockley et al., 2016), thus

recognizing more nuanced career success perceptions. We focus on one particular facet - perceived financial success - which serves as the subjective counterpoint to objective career success and is considered particularly important given its effects on many relevant behaviors including turnover, absenteeism, and job performance (Yao, Locke, & Jamal, 2018).

Several empirical studies support a positive link between specific HCDPs and general subjective CS (e.g., Allen, Eby, Poteet, Lentz, & Lima, 2004; Burke & McKeen, 1994; Nabi, 1999; Ng et al., 2005). In contrast, the absence of these practices likely reduces subjective CS (Barnett & Bradley, 2007). Employees who participate in HCDPs tend to possess positive expectations regarding their market value (De Vos, De Hauw, & Van de Heijden, 2011) and may perceive higher financial success as they foresee potential returns on these organizational investments (Berntson, Sverke, & Marklund, 2006). In addition, HCDPs likely enhance individual career self-awareness (e.g., Greenhaus & Connolly, 1982) and career effectiveness (Orpen, 1994). From a career proactivity perspective, the accompanying felt benefits of HCDPs in terms of taking control, anticipating and facilitating information retrieval, can also positively influence financial success perceptions (Smale et al., 2019). Consequently, we predict:

Hypothesis 1b: Having experienced a larger number of different HCDPs throughout one's career is positively related to subjective career success in the form of perceived financial success.

Institutional Factors and Career Success

Human capital theory is perceived as universally applicable to different contexts (Marginson, 2019). As stated by Ó Riain (2011, p. 601), studies of human capital have largely focused on the employer-employee relationship and consequently have “relatively little to say about the institutional and political contexts of human capital formation and use.” The universalistic

focus of the theory rests on its “methodological individualism”, which grounds human capital formation in individual behaviour and interests (Tan, 2014, p. 413). This methodological individualism is regarded as a limitation because the value of accumulated human capital may depend on many factors conditioned by the institutional and social context in which individuals decide and operate (Josifidis & Supic, 2019). Thus, different aspects of the economic and social environment could affect the relationship between human capital accumulation and individual returns including contextual dynamism (Crook et al., 2011) and labor market conditions, such as level of unionization, a minimum wage, level of competition and market uncertainty (Klees, 2016).

Here we focus on two core institutional factors that actually shaped the environment in which human capital theory was initially developed. The theory was developed in the US during the period between the 1950s and the 1970s, which favored its genesis and spread. During that period, economic conditions in the US were unusually favorable (Picketty, 2014) as the country was prosperous and income inequality decreased since opportunities for upward social mobility via education were available and extensively used. This expansion of opportunity and social mobility spurred human capital economists to propose that the theory will always explain the relationship between education and work (Marginson, 2019).

In line with these institutional factors, the two variables we include in our model are general country development and income inequality. These variables are key to defining the structure of opportunities (King, 2001) for individuals to move upward in society and, more generally, the level of economic opportunities in a country. Whereas the level of country development defines a country’s wealth, income inequality describes how that wealth is distributed. Thus, both variables may affect individuals’ ability to capitalize on their human capital investment. We contend that examining the influence of these two variables can

contribute to human capital theoretical development (Whetten, 2009), identifying boundary conditions but staying true to its original contextual scope.

General country development

In line with criticisms of human capital theory (Tan, 2014), a range of economic, political, social and cultural factors must be considered when examining the impact of human capital investment on outcomes, given that one's professional opportunities (and thus one's salary and career success perceptions) are influenced by the level of development and general quality of life in the country where one's career develops. In particular, research has suggested that there are differences in the private rates of return on education (typically measured in higher wages). The literature on explaining why these differences exist is rather 'thin' but shows returns are higher in more developed countries (Hartog & Oosterbeek, 2007).

In more developed countries, we expect workers' human capital to be higher on average due to better education and other developmental resources (Becker, 1994). Although no labor market functions with the perfect efficiency assumed by economists (Klees, 2016; Tan 2014), more developed economies are more likely to have job markets in which employers reward those with higher human capital (as they are presumably more productive), as employees seek better paying opportunities commensurate with their knowledge, skills and expertise (Acemoglu, 1996). In other words, more developed countries tend to have better economic and social infrastructures and a more supportive environment that not only encourages individuals to accumulate more human capital, but also creates conditions to capture the returns of such capital accumulation in higher salaries (Hall & Jones, 1999). Thus, in more economically developed countries, those that avail themselves of more HCDP will have more room to grow in terms of salary.

In contrast, in less developed economies, there is less growth potential and the returns on human capital investments will likely be lower (Tomohara & Takii, 2011). First, companies may be offering fewer HCDPs to employees and employees may have fewer incentives to avail themselves of such programs, given more limited advancement opportunities. But even when HCDPs are available, and employees participate in such programs, organizations will be less likely to reward human capital gains by increasing salaries in response to increased productivity, given the generally restricted market growth (Tomohara & Takii, 2011) and lower organizational inability to match increases in human capital with proportionate salary increases. Second, investment in HCDPs may result in an oversupply of workers with high human capital that the market cannot absorb in the face of stagnant demand (Pritchett, 2001; Tan, 2014). This does not only drive overall wage levels down, but can also weaken the relationship between human capital growth and salary, as increases in human capital do not guarantee increased salary. Related to this, organizations in developing economies may have poorer performance management systems potentially keeping those with the best skills from the highest rewards (Hayek et al., 2016).

Lastly, studies have shown that greater access to resources reduces the constraints of human choice and provides people with more autonomy over their resources (e.g., Welzel, Inglehart, & Klingemann, 2003). One valuable resource in developed economies is wider and more diverse job opportunities (Downes, Thomas, & Singley, 2002). Other resources more common in developed countries are unemployment benefits and welfare programs. These mitigate unemployment risks and may embolden individuals to take risks associated with a career move aiming at higher returns on their human capital (Hamori, 2014). In contrast, in economic insecurity, resources are fewer and people tend to be more constrained in how they use them. Fewer resources often lead to adjusting one's aspirations downward (Welzel, Inglehart, & Klingemann, 2003). Thus, individuals in countries having lower economic

development may view participation in HCDPs as providing much needed job security, making themselves more indispensable to their current employer, and thus less concerned with increases in income, or lack thereof.

All of these factors serve to attenuate the positive relationship between the experiencing of a larger number of different HCDPs and objective career success (salary level) in less developed countries compared to more developed ones. Hence, we predict:

Hypothesis 2a: In more developed countries, the positive relationship between the experience of a larger number of different HCDPs and objective career success, in the form of salary level, will be stronger than in less developed countries.

In countries with high levels of development, experiencing HCDPs may positively relate to objective success, but not necessarily perceived financial success. As suggested above, in more affluent countries, organizations are more likely to offer more HCDPs to employees. Due to the generally higher availability of these practices, individuals' access to HCDPs might be taken for granted. In contrast, in less developed countries, organizations are less likely to offer HCDPs. Due to the scarcity of such investments in human capital, individuals may attribute a higher value to the practices and thus may equate the experiencing HCDPs with perceived financial success, regardless of their objective financial success (Nicholson & De Waal-Andrews, 2005).

Also, research has suggested that when it comes to a valuable resource, it is often our relative standing to others that contributes more to our satisfaction than the absolute amount of a resource (Frey & Stutzer, 2002). Research on the relationship between income and happiness shows that an individual's perceived relative status has a significantly larger effect on subjective well-being than objective measures of relative status based on reported income. Furthermore, it has been suggested that the predictive power of perceived relative income is

stronger for subjective well-being than actual relative income among those with access to fewer resources as compared to those with access to more (Posel & Casale, 2011).

Additionally, social comparisons are more intensified among those with lower incomes compared to those with higher incomes (Clark & Senik, 2010). Reflecting such findings, we propose that individuals are more likely to perceive higher financial success, regardless of their actual salary, when they have had an opportunity to partake in more HCDPs in less developed countries. Hence, we predict the following:

Hypothesis 2b: In less developed countries, the relationship between the experience of a larger number of different HCDPs and subjective career success, in the form of perceived financial success, will be stronger than in more developed countries.

Income inequality

Since the mid-1980s, inequality in the distribution of incomes has increased in almost all OECD countries (OECD, 2011). This income inequality contributes to inequality of opportunities in two ways. From a static perspective, research shows that the return of comparable investments in human capital is not the same for people at different starting salaries. These differences are due to an earnings gap between rich and poor that can get amplified over time (Neidhöfer & Stockhausen, 2019). From a dynamic perspective, this income inequality may then persist across generations. In countries with greater income inequality, lesser educated parents generally have lower incomes and often cannot afford to invest as readily in the human capital of their children (Chiu, 1998). In turn, the children of such parents also tend to have lower endowments arising from environmental influences during childhood (Björklund & Jäntti, 2012).

Ultimately, rising income inequality in society makes it “harder for talented and hard-working people to get the rewards they deserve” (OECD, 2011, p. 40). Occupational

outcomes become more a function of existing and prior inequalities, than of individual choices about investment in human capital (Erosa, Koreshkova, & Restuccia, 2010).

Employers are then likely to attribute more negative characteristics, such as lower cognitive abilities and competence, to socially disadvantaged individuals (Fiske, Cuddy, Glick, & Xu, 2002; Joffe & Staerklé, 2007). Thus, although individuals may have participated in the same HCDPs and gained valuable human capital, research has shown that individuals from poorer backgrounds tend to be disadvantaged in achieving objective CS in organizations due to income inequality (Pitesa & Pillutla, 2019). Thus, we predict:

Hypothesis 3a: In countries with greater income inequality, the positive relationship between the experience of a larger number of different HCDPs and objective career success, in the form of salary level, will be weaker than in countries with lower income inequality.

Researchers continue to criticize the common approach in human capital theory to estimate education and development returns with earnings data only and instead suggest also incorporating people's *perceived* returns on human capital investments (e.g., Attanasio & Kaufmann, 2014; Becker, 1994; Botelho & Pinto, 2004; Coff & Raffiee, 2015; Jensen, 2010). Doing so may show that the subjective and objective estimates of returns deviate (Huntington-Klein, 2015). This implies that even if an employer grants the same salary increase to two employees who profited from the same HCDPs to compensate their human capital accumulation, the *perceived* value may differ between the two individuals. While such misalignment of individual perceptions is commonly acknowledged among researchers in the field of organizational behavior and psychology (e.g., Maltarich, Reilly, & Nyberg, 2011), this is usually not the case in human capital literature. We share Coff and Raffiee's (2015) view that the exclusion of perceptions regarding human capital is problematic.

In a country that is low in income inequality, the market is likely to fulfill human capital theory assumptions to a large extent (Dobbs, Sun, & Roberts, 2008; Erosa, Koreshkova, & Restuccia, 2010). Workers are likely to experience that investments in their human capital pay off in terms of their salary and that differences in salaries between people are justified by differences in achievement (Almås, Cappelen, Sørensen, & Tungodden, 2010). In view of their chances to economically develop, individuals are likely to experience an increased satisfaction with their financial success. However, we expect the positive relationship to be stronger in societies with higher income inequality. Research in the field of income inequality has shown that individuals' satisfaction depends not only on the objective salary they receive, but also on their estimated chances for climbing the economic ladder and their perceived relative position in the income distribution as compared to proximate others (e.g., Frey & Stutzer, 2002; Katic & Ingram, 2018).

Following human capital theory, if workers realize that they profit from HCDPs to build up their human capital and their salary increases in return (even if only slightly), they perceive the income generation process to be fair (Frey, Benz, & Stutzer, 2004). The perception that income inequality results from fair processes increases workers' tolerance of such inequality (Bjørnskov, Dreher, Fischer, Schnellenbach, & Gehring, 2013; Katic & Ingram, 2018). Thus, increases in salaries function as a source of inspiration or optimism for the future, especially for the disadvantaged and income inequality can become a signal of economic opportunity for individuals with a positive effect on their subjective CS (see Katic & Ingram, 2018; Rözer & Kraaykamp, 2013). In consequence, they may be more satisfied with their perceived financial success where income inequality is higher.

Among affluent workers – the upper end of the income distribution – social comparison is another mechanism likely to explain the positive moderation by income inequality. Affluent individuals in societies with high income inequality are likely to compare

their human capital investment return with others. For instance, research has found that income comparison and income satiation (i.e. the point at which higher income no longer produces greater happiness) rises with education level (Burchell & Yagil, 1997; Jebb, Tay, Diener & Oishi, 2018), which determines an individual's position in the labor market and society (Turcinkova & Stakova, 2012). Since there is a disproportionately higher number of potential referents who are worse-off than better-off, a downward social comparison is more likely for the rich and educated. In view of their higher salary as compared to the less wealthy, their satisfaction with financial returns from HCDP investments is likely to be high (Katic & Ingram, 2018).

In sum, given these differences in the income inequality between countries, we suggest that, in highly unequal societies, both disadvantaged and affluent individuals who profit from HCDPs will be more satisfied with their financial success, compared to individuals who live in more income equal societies. Thus, we predict:

Hypothesis 3b: In countries with greater income inequality, the positive relationship between the experience of a larger number of different HCDPs and subjective career success, in the form of perceived financial success, will be stronger than in countries with lower income inequality.

Method

Sample and data collection

The source of our data is a large, multi-country, cross-cultural research project covering most GLOBE country clusters (House, Hanges, Javidan, Dorfman, & Gupta, 2004; Komor, 2013). The data were collected through a questionnaire (either online or paper-and-pencil) that was translated and back-translated to the local languages of all participating countries (Brislin, 1970). Data were collected during 2014-2016 using pre-determined screening criteria to

achieve heterogeneous within-country samples (Cook & Campbell, 1979) with regard to relevant respondents' demographic characteristics (i.e., work experience, occupation, age). Each national sample includes individuals who have at least two years of post-educational work experience, reflects close to equal, tripartite age distribution (under 30; 30-50; over 50 years), and is gender balanced. The target was at least 400 respondents per country with 100 from each of the following occupational categories: managers, professionals, clerical/service workers, and skilled workers. Besides these quotas, the minimum number of respondents and the standardized instrument, national representatives were free to choose how to attract respondents. Survey completion was voluntary and not incentivized.

For this study, we used a subset of the data including respondents from 28 countries (Argentina, Australia, Austria, Belgium, Canada, China, Colombia, Finland, Germany, Greece, India, Ireland, Italy, Japan, Malawi, Mexico, Nigeria, Norway, Portugal, Russia, Serbia, Slovakia, Slovenia, South Korea, Switzerland, Turkey, the United Kingdom, and the United States), whose occupation was either manager or professional. The selection was based on research suggesting that these two occupational categories have more regular access to HCDPs (Cappelli & Keller, 2014). We excluded self-employed individuals from our sample for the same reason. The final sample thus included 8,817 participants. The respondents' mean age was 40.6 years and they averaged 16.2 years of work experience. Gender distribution was roughly balanced (51% women). Fifty-nine percent of respondents categorized themselves as professionals and 41% as managers. Within our sample, 2.5% had a lower secondary education or below, 22% had upper secondary, post-secondary or short-cycle tertiary education, and 75.5% had tertiary education.

Measures

Objective CS - salary level

We gathered salary data by asking respondents about their gross annual salary in local currency using salary rankings. Since countries used different income scales, a measure focusing on within-country variability was developed. For each country, we first determined the median salary rank. We then calculated the difference between an individual's salary rank and their median salary rank within the country (*relative salary rank*). Individuals that were above the median salary rank were categorized as having a high relative (within-country) salary rank. The developed measure thus represents a robust and dichotomous measure of salary level. Overall, 39.2% of respondents in our sample were categorized as having a relatively high salary. The only exception was Switzerland, due to systemic absence of salary data, which dropped the number of respondents to 7,531 individuals across 27 countries.

Subjective CS - perceived financial success

Because our research is cross-cultural, we used a recent culturally invariant scale of subjective CS (Briscoe et al., 2014) validated in cross-cultural studies (Andresen et al., 2020; Smale et al., 2019). The scale is multidimensional and captures the achievement and importance aspects of different dimensions of subjective CS (see Greenhaus et al., 1990; Gunz & Heslin, 2005). In this study, we used the achievement aspect of subjective CS. For each achievement aspect, participants were asked to report on a 5-point scale (from strongly disagree to strongly agree), "In regard to this career aspect, I have achieved a level I am happy with." Perceived financial success was measured with respect to (a) wealth, (b) receiving incentives, perks, or bonuses, and (c) steadily making more money ($\alpha = 0.74$; composite reliability [CR] = 0.75).

Human capital development practices (HCDPs) index

This is an additive index of nine practices. Among development practices proposed by the human resource and career literatures (e.g., Baruch & Peiperl, 2000; Gutteridge & Otte, 1983; Jiang et al., 2012), we selected practices particularly suited to the nurturing of individual

human capital. The nine practices are: education and training, job posting, lateral moves, career planning, performance appraisal, career counselling, assessment and development center, mentoring and networking, peer and subordinate appraisal. We asked respondents to indicate if they experienced (or not) each one of the practices during their career. In measuring the effect of HCDPs on career success, we assume equifinality among different sets of practices (Delery & Doty, 1996). The adoption of an index of practices captures both accumulation and the variety of human capital (Ployhart, 2014).

General country development

General country development was measured by the Human Development Index (HDI). The HDI is a robust index encompassing life expectancy at birth, expected years of schooling, mean years of schooling for adults aged 25, and standard of living (gross national income per capita) (UNDP, 2016). We used the 2015 HDI as it was closest in time to our data collection.

Income inequality

Income inequality was measured using the Inequality in Income (estimated using the Atkinson inequality index) (UNDP, 2016), which was available for all countries in our sample. We used the 2015 levels as they were closest to the time of our data collection.

Control variables

We included the following controls: *work experience* in years, *gender* (1=male, 0=female), *educational level* (1=primary education, 2=lower secondary, 3=upper secondary, 4=post-secondary non-tertiary or short-cycle tertiary, 5=bachelor's degree, 6=master's degree, 7=doctorate). These variables have been used as controls in studies of objective and subjective success (see meta-analysis by Ng et al., 2005). We also controlled for education level of respondent's father since individuals' socio-economic background is relevant when examining the contextualized effects of human capital development. Given the prevalence of the male breadwinner model (especially in the human capital formation period of our

respondents) (Mandel, 2009), the father's education level is salient for what is passed on from one generation to the next and is one of the most widely used measures of socio-economic status (e.g., Buchman, 2002). Since our sample includes managers and professionals, we also controlled for *managerial position* (1=manager, 0=professional) (Nabi, 1999).

Analytical procedure

In order to test our hypotheses, we needed to examine multilevel and cross-level interaction models with manifest variables. The ICC(1) levels of our dependent variables indicated that variance existed at both levels of analysis; ICC(1) was 0.099 for perceived financial success and 0.023 for high relative salary ranking (categorical variable; logit model). At the same time, we took into account that our data was skewed and had missing values along with the categorical nature of the high relative salary rank variable. We used the full information likelihood procedure (FIML) to resolve the missing data problem and robust maximum likelihood (MLR) estimator to address the skewed data issue (Mplus 8.0; Muthén & Muthén, 1998-2017). We carried out multilevel modelling by first estimating an intercept only (null) model, followed by two random intercept models to estimate the fixed effects of individual-level variables (controls and HCDPs index). For models where cross-level interactions were examined, we adopted random intercept random slope models. We country-mean centered continuous Level 1 variables and grand-mean centered Level 2 variables. In addition, country-mean HCDPs and country-mean HCDPs * HCDPs interaction effects were added to achieve higher precision in estimating cross-level interaction effects (see Aguinis, Gottfredson, & Culpepper, 2013).

Results

Table 1 presents the descriptive statistics (means, standard deviations, and bivariate correlations) of the variables used at both levels. The magnitudes of the correlation

coefficients indicated that multicollinearity was not likely to present significant statistical difficulties. The correlation coefficients revealed that older and more educated male managers are more likely to have experienced a larger number of HCDPs (the correlations were respectively $.090, p < .01$ with gender, $.045, p < .01$ with work experience, $.034, p < .01$ with education, and $.192, p < .01$ with managerial position). The average number of HCDPs experienced by the sample was 4.56, with a standard deviation of 2.42, suggesting variance in our sample in terms of level of human capital accumulated. The correlation between HCDPs index and both the CS variables was positive ($.190, p < .01$ with relative salary ranking, and $.247, p < .01$ with perceived financial success) supporting, for the general sample, the expected relationship between human capital accumulation and CS.

*** Insert Table 1 about here ***

In Hypotheses 1a and 1b we argued that an individual who has experienced a larger number of different HCDPs will demonstrate a high relative salary rank (objective CS) and will also perceive higher financial success (subjective CS). Model 3 in Table 2 shows that the relationship between HCDPs experienced and high relative salary rank was indeed positive ($\gamma = 0.141, p = .000$). An individual experiencing an additional HCDP is 1.151 times more likely to be among those receiving a relatively high salary. We should note that the control variables exhibited strong effects in comparison to HCDPs. For example, managers are 3.16 times more likely to be included in the higher salary category, and so are men and those with higher education (respectively 2.15 and 1.71 times more likely). Model 9 in Table 3 shows that the relationship between HCDPs and perceived financial success was also positive and statistically significant ($\gamma = 0.074, p = 0.000$). If we compare the standardized regression coefficients of Level 1 variables we can observe that the effect size of HCDPs for subjective CS was more than twice the size of the closest control variable ($.217$ in comparison to $.099$ for manager, $.098$ for work experience, and $.060$ for gender). Experiencing an additional

HCDP increases perceived financial success by an average of .074 points on a 5-point scale. Thus, Hypotheses 1a and 1b were supported.

*** Insert Tables 2 and 3 about here ***

In Hypotheses 2a-b and 3a-b, we proposed cross-level interactions of country institutional factors (i.e., general country development and income inequality) with HCDPs index in predicting high relative salary rank and perceived financial success.

The slope variance in Model 4 in Table 2 differed from zero and was statistically significant ($\gamma = 0.005, p = .02$), which implies that cross-level moderators affecting the relationship between HCDPs and high relative salary are likely. Therefore, we continued our analyses by estimating cross-level interaction models that included the selected contextual variables. We found a significant cross-level moderation effect of HDI on the focal relationship, see Models 5 and 5-1 in Table 2 ($\gamma = 0.395, p = .005$ and $\gamma = 0.431, p = .002$, respectively). This offers support for Hypothesis 2a. Figure 1 plots the cross-level interaction between HCDPs and HDI in predicting high relative salary rank. In countries with low HDI, the established positive relationship between HCDPs and high relative salary rank changes and the sign becomes negative (downward sloping line for low HDI countries).

In addition, as evident from Model 6 in Table 2, the cross-level moderating effect of income inequality on the focal relationship (HCDPs – high relative salary rank) was marginally statistically significant ($\gamma = -0.004, p = .090$). Thus, we found weak support for Hypothesis 3a, since the relationship between HCDPs and high relative salary rank was only marginally stronger in countries with lower income inequality.

The cross-level effects on perceived financial success is shown in Model 10 in Table 3. The slope variance random coefficient is very small, yet statistically significant ($\gamma = 0.001, p = .030$), which implies that slopes depicting the relationship between HCDPs and perceived

financial success differ between countries and therefore cross-level moderating effects of the institutional variables are likely. We thus proceeded with cross-level moderation analyses.

As we show in Model 11 (Table 3), the HDI was found to be a statistically significant moderator of the focal relationship, that is, the relationship between HCDPs and perceived financial success ($\gamma = -0.135, p = .004$). Thus, we found support for the Hypothesis 2b.

Figure 2 plots the cross-level interaction between HCDPs and HDI in predicting perceived financial success. It shows that in countries with low general level of development the relationship between HCDPs and perceived financial success is stronger (steeper slope) than in countries with higher general country development.

On the other hand, as shown in Model 12 (Table 3), the cross-level moderation of income inequality on the relationship between HCDPs and perceived financial success was not statistically significant ($\gamma = 0.001, p = .105$). Hence, Hypothesis 3b was not supported.

*** Insert Figures 1 and 2 about here ***

Discussion

Drawing on human capital theory (Becker, 1994; Coff & Kryscynski, 2012; Hatch & Dyer, 2004; Sweetland, 1996; Wößmann, 2003), the present research proposed and tested the relationship between HCDPs experienced throughout one's career to objective (salary level) and subjective (perceived financial success) CS. We also tested the moderating effect of two country-level institutional factors, general country development and income inequality, which allowed us to test the boundaries of human capital theory more broadly and beyond the economic and social conditions in US at the time when the theory was initially developed.

As far as the direct relationship between HCDPs and CS is concerned, our results showed that more and different HCDPs benefit not only individual earnings but also their perceived value (Coff & Raffiee, 2015; Jensen, 2010). Our findings thus confirm the

hypothesized cumulative effect of different HCDPs and are aligned with those studies proposing the potentially greater value of a variety of human capital resources (Ployhart, Nyberg, Reilly, & Maltarich, 2014).

With regards to the moderation effects, our findings showed that general country development moderated the relationship between HCDPs and career success in the form of salary level and perceived financial success. It influenced not only the strength but also the direction of the HCDP-career success relationships. Economic conditions can vary widely from country to country, and are unlike the circumstances characterizing the US economy when human capital theory was first developed and verified empirically. Our second contextual variable – income inequality – proved to be a less powerful boundary condition since it only marginally influenced the relationship between HCDP and salary level. The moderations suggest that whereas the level of country wealth influences career outcomes associated with experiencing HCDPs, the wealth distribution effects are less clear-cut. The results pointed in the predicted direction, but the marginal statistical significance suggests that a conservative interpretation of this finding is warranted.

Our findings support the conclusion that organizational investments in human capital are more beneficial for individuals' salaries in more developed countries. It is reasonable that individuals in more prosperous countries tend to be equipped with higher levels of education on average and are also more likely to exploit the benefit of a broader range of available development opportunities (Leana & Meuris, 2015). In addition, wealthier economies create munificent environments where individuals may have more job and career opportunities (Downes, Thomas, & Singley, 2002; King, 2001), both in internal and external labor markets, which will allow financially beneficial job mobility (Hamori, 2014). In less wealthy economies, individual human capital may grow as a result of participation in HCDPs, but

there may be much more limited opportunities for individual salaries to grow, which would weaken the relationship between HCDPs and salaries there.

Regarding the moderation of HDI on the relationship between HCDPs and perceived financial success, our research showed that in less developed countries people who have experienced more HCDPs were more likely to perceive high financial success compared to people in high HDI countries. Combined with the results on objective CS discussed above, there is a certain sense of irony that people in less developed countries may receive a smaller objective financial reward as a result of participating in HCDPs but tend to appreciate it more. This underscores the contextual nature of financial success and why it is important to consider institutional contexts to understand the value of HCDPs to different forms of CS. As argued earlier, our relative standing within a society can influence our satisfaction more so than the objective resources we have (Frey & Stutzer, 2002). Related to this, in less developed countries our perceived relative income, rather than our actual relative income, is more meaningful for our subjective success.

We also found that income inequality only marginally affects the relationship between HCDPs and salary level, but not perceived financial success. We suggest that in high income inequality countries, the experience of HCDPs is less likely to be translated into higher salary levels for two main reasons (Fiske et al., 2002; Joffe & Staerklé, 2007): first, the criteria for determining salary levels may not be transparent; second, high compensation may be available only to elites, in ways that perpetuate extant social differences. Employers may base rewards less on human capital and more on long-lasting beliefs about social origin and may pay lower salaries to those who belong to disadvantaged groups (Hällsten, 2013; Witteveen & Attewell, 2017). Finally, income inequality is negatively associated with governmental spending (e.g., health care, social security) in welfare states (OECD, 2015). We may expect that in countries with high income inequality, part of the company's financial resources will

be devoted to worker allowances and in-kind services, therefore potentially reducing the resources available for increasing the salaries of highly skilled workers. Given the marginal significance level of the moderation effect, it is possible that the above considerations may not apply to all managers and professionals similarly.

The insignificant moderation effect of income inequality on the relationship between HCDPs and perceived financial success could be interpreted as underscoring the idea that a nation's income inequality affects societal members inconsistently (Ram, 2010; Rozer & Kraaykamp, 2013; Verme, 2011). More specifically, people in disadvantaged groups may perceive the income generation process to be unfair and, thus, may feel less financially successful, perhaps viewing their career outcomes as somewhat fatalistically determined. Conversely, being in the more affluent group could lead to people attributing a greater personal influence over their financial achievements, including their subjective achievements (Gemmill & Heisler, 1972; Spurk et al., 2019). Moreover, it is possible that our assumption that people living in countries with higher income inequality report high subjective CS does not apply to all people similarly, implying that additional moderators should be considered in future research, such as social and institutional trust (Rözer & Kraaykamp, 2013).

Theoretical contributions

Our findings contribute to human capital theory and careers research in several ways. First, by considering a comprehensive set of developmental practices, we address the limitations of both human capital theory, which has typically researched education and training, and career research, which has mainly tested the effects of single practices on career success. Further research should investigate possible interaction or substitution effects among different practices (Ployahrt et al., 2014). Moreover, our adopted measure of HCDPs better reflects employees' career realities since managers and professionals are often beneficiaries of a variety of investments in their human capital, in and across organizations (Bagdadli, 2007;

Sonnenfeld, 1989). As noted, this measurement approach aligns our study with empirical research in strategic human resource management that embraced the study of configurations of practices more than two decades ago (see Delery & Doty, 1996). A further contribution to human capital theory comes from testing the effects of human capital investments on a subjective outcome and demonstrating its relevance for “psychic income” (Becker, 1994, p. 11). Our results clearly indicate that there is a correspondence between the selected dimensions of objective and subjective CS, but they are not the same because arguably “within each level of wealth and occupational status, some people view their careers as much more (or less) successful than do others” (Heslin, 2005, p. 377).

Second, we highlight the role of context in human capital theorizing (see Bonal, 2016; Hayek et al., 2016; Ó Riain, 2011) by demonstrating that the same investment in human capital development does not render the same outcome across contexts. In particular, one institutional factor – general country development – turned out to be a powerful boundary condition, bringing into doubt the universalism of human capital theorizing – a concern that has been voiced by others (see Bonal, 2016; Hayek et al., 2016; Ó Riain, 2011). We contend that, as suggested by Whetten (2009), identifying the conditions under which a theory developed in one context holds within a broader set of contexts strengthens theory development.

Our findings also underscore possible limitations of human capital theory and its emphasis of human agency over social structure (Hayek, et al., 2016; Tan, 2014). It is worth mentioning that the two institutional factors we selected largely depict the economic conditions of a society, demonstrating that career development and outcomes are not influenced exclusively by proximal factors such as job market conditions (e.g., unemployment rate) (King, 2001) or human capital specificity (Becker, 1964; Hatch & Dyer, 2004).

Finally, our findings contribute to the emergent stream of comparative careers research (Mayrhofer et al., 2007; Mayrhofer et al., 2020; Tomlinson et al., 2018) and support continued examination of a more contextualized approach to organizational behavior at large (House, Rousseau, & Thomas-Hunt, 1995; Johns, 2006; Rousseau, 1985). Institutional factors deserve more attention as they are unlikely to be equally salient for different forms of CS, and the relevance of the same factor will likely vary for objective and subjective CS (Heslin, 2005; Kaše et al., 2020). Our results build on other empirical studies showing HDI as a powerful explanatory factor of career success (Andresen et al., 2020; Kaše et al., 2020).

Limitations and future research

Although our research using multi-level data from participants from 28 countries offers several important insights, it is not without limitations. Due to our cross-sectional design, we cannot infer the causal direction of our focal variables with certainty. We therefore advise future studies to employ longitudinal research designs. Moreover, since the effects of HCDPs on human capital are likely to vary according to the organizational contexts where they are experienced (Ployhart et al., 2014), future research should introduce organizational-level variables (e.g. size, level of centralization, span of control) to capture these effects. Our HCDPs measure captured the breadth of development activities experienced during one's career by asking respondents to indicate if they experienced (or not) each one of the practices during their career. We would advise future researchers to employ a continuous Likert response scale in order to assess both the breadth and depth/intensity of organizational career support experienced by individuals (Beijer, Peccei, Van Veldhoven, & Paauwe, 2019).

We controlled for managerial and professional position, and suggest future research include specific job positions as they may have differential human capital development opportunities (McCauley, Ruderman, Ohlott, & Morrow, 1994). As for moderation variables, we acknowledge that other institutional factors or cultural variables may be relevant as

potential boundary conditions to human capital theory and encourage researchers to integrate these into future career research. For instance, we may expect individuals' ability to capitalize on their investment in human capital to be lessened in cultures with high power distance (Hofstede, 1984; House et al., 2004), since an employee's supervisor may be pivotal in determining individual outcomes. In addition, since institutional factors (e.g. inequality) might shape not only the effects but also the availability of HCDPs, future research should explicitly consider these differences in availability between countries.

To our knowledge, our study is the first to test the effects of HCDPs on both objective and subjective financial success in such a large and diverse multi-country sample, which allowed us to examine the moderating effects of country-level institutional factors. We hope that our findings will encourage more (and more nuanced) comparative careers research in order to help individuals and organizations in proactively navigating contextual and environmental complexity through sound, evidence-based suggestions. In addition, future research should consider other dimensions of career success and other potential prominent factors that may also moderate the HCDPs-CS relationship.

Since our research interest lays in investigating the accumulated effect of different HCDPs across one's entire career, we adopted an index of HCDPs as our independent variable. Nevertheless, we also performed additional analyses of the relative influence of different HCDPs on career success (see Supporting Information supplement), which provides further insights for readers. Issues worth further exploration include, for example, the identification of bundles of HCDPs and their aggregation rationale, which may be ingrained in the different components of human capital: knowledge and ideas, skills, information. In addition, researchers may want to explore the differentiated effects of different HCDPs on objective and subjective career success.

Managerial implications

Our study has important practical implications for workers experiencing HCDPs and for managers who have to take decisions on those investments, including human resource managers, supervisors and members of the top management team (Gooderham, Morley, Parry, & Stavrou, 2015). First, we demonstrate that individuals are well advised to accumulate a diversified “portfolio” of HCDPs in order to sustain their career development and prospects for future career success. We confirm that the accumulation of human capital through HCDPs in one or multiple organizations really pays off in terms of salary and perceived financial success. Second, to the extent that it is feasible, individuals may even consider moving to a different country where their accumulated human capital investments may be more likely to translate into higher salaries, as we found for countries with lower income inequality and higher levels of development. Given that moving to a different country for a job might not be feasible for most workers, for instance due to constraints on labor mobility across countries, those living in less-developed countries might increase their salaries by moving frequently from one organization to another (Hamori, 2014). This choice might bear the risk that the new company does not offer development opportunities (McCauley et al., 1994), thus potentially undermining the value of individual human capital. While employees are aware of the salary offer when deciding to move to another organization, information about HCDPs investments might not be available and/or predictable.

For managers deciding on HCDP investments, it is important to consider that, in general, those who receive company-sponsored investments will be more satisfied and this may contribute to their retention. At the same time, organizations, from local to multinational, operating in less developed countries, where the effects of HCDPs on salaries are reduced, may want to stress non-monetary rewards such as flexible work arrangements or

family-friendly practices. Even though individual salaries in those countries may be comparatively lower, organizations may still want to maintain a high level of investment in HCDPs not only to enhance satisfaction, but also, and more importantly, due to the positive effects of human capital on company competitive advantage (Ployhart et al., 2014).

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Table 1 - Descriptive statistics: means, standard deviations (SD) and bivariate correlations

Variable	Mean	SD	1	2	3	4	5	6	7
<i>Level 1</i>									
1 Gender	.49	.50							
2 Work experience	16.16	10.44	.072**						
3 Education level	5.11	1.08	.011	-.175**					
4 Education level (father)	3.49	1.70	-.026*	-.259**	.316**				
5 Managerial position	.41	.49	.163**	.175**	-.058**	-.005			
6 HCDPs	4.56	2.42	.090**	.045**	.034**	.015	.192**		
7 Relative salary rank	.39	.49	.217**	.252**	.153**	.032**	.307**	.190**	
8 Perceived financial success	3.34	.86	.108**	.135**	.001	.013	.170**	.247**	.230**
<i>Level 2</i>									
1 Income Inequality	19.95	7.54							
2 HDI	.83	.12	-.600**						
3 HCDPs (country mean)	4.68	.95	.151	-.266					

Notes. *p<.05; **p<.01; n(Level 1) = 7,752 to 8,817; n(Level 2) =28

Table 2 - Multilevel Models with Cross-Level Interactions Predicting High Relative Salary Rank

	Model 1	Model 2	Model 3 (fixed slope)	Model 4 (random slope)	Model 5 HDI (random slope)	Model 5-1 HDI (random slope)	Model 6 Income inequality (random slope)
<i>Threshold</i>	.406 (.059)***	1.435 (.119)***	2.046 (.192)***	2.035 (.181)***	1.347 (1.317)	1.823 (.493)***	2.279 (0.541)***
<i>Level 1</i>							
Managerial position		1.234 (.125)***	1.154 (.123)***	1.163 (.124)***	1.157 (.123)***	1.157 (.123)***	1.158 (.124)***
Gender		.790 (.098)***	.770 (.099)***	.781 (.096)***	.776 (.095)***	.776 (.095)***	.775 (.095)***
Education		.521 (.063)***	.513 (.062)***	.517 (.062)***	.517 (.062)***	.517 (.062)***	.516 (.061)***
Education (father)		.098 (.029)**	.101 (.029)***	.102 (.029)***	.101 (.029)***	.101 (.029)***	.102 (.029)***
Work experience		.063 (.006)***	.063 (.006)***	.064 (.006)***	.064 (.006)***	.064 (.006)***	.064 (.006)***
HCDPs index			.140 (.022)***	.137 (.022)***	-.086 (.151)	.204 (.072)**	.316 (.096)**
<i>Level 2</i>							
HCDPs (country mean)					.019 (.107)	-.039 (.104)	-.063 (.090)
Institutional factor					-.906 (1.249)	-1.180 (1.281)	.028 (.015) ⁺
<i>Cross-level interaction</i>							
HCDPs*HCDPs (country mean)					-.022 (.016)	-.015 (.016)	-.019 (.017)
HCDPs*institutional factor					.395 (.139)**	.431 (.137)**	-.004 (.003) ⁺
<i>Variance components</i>							
Residual variance (Between)	.078 (.031)*	.116 (.057)*	.141 (.061)*	.130 (.052)*	.230 (.073)**	.224 (.071)**	.191 (.070)**
Slope variance				.005 (.002)*	.006 (.003) ⁺	.005 (.003)	.007 (.003)*
Intercept-slope covariance					-.026 (.013) ⁺	-.023 (.012)	-.023 (.015)
n	7,745	7,513	7,425	7,425	7,425	7,425	7,425
R ²	-	.282	.309	-	-	-	-
AIC	10,273.5	8,295.2	8060.5	8039.8	8,029.7	8,029.8	8033.2
Deviance	10,269.5	8,281.2	8,044.5	8,021.8	8,001.7	8,001.9	8,005.2

Notes: Unstandardized coefficients; ⁺p<.10; *p<.05; **p<.01; ***p<.001; n(Level 1) = 7,425 to 7,452; n(Level 2) = 27.

Table 3 - Multilevel Models with Cross-Level Interactions Predicting Perceived Financial Success

	Model 7	Model 8	Model 9 (fixed slope)	Model 10 (random slope)	Model 11 HDI (random slope)	Model 12 Income inequality (random slope)
<i>Intercept</i>	3.338 (.052)***	2.980 (.097)***	2.727 (.089)***	2.715 (.090)***	1.762 (.703)*	2.785 (.306)***
<i>Level 1</i>						
Managerial position		.231 (.016)***	.170 (.018)***	.171 (.018)***	.173 (.018)***	.173 (.018)***
Gender		.113 (.017)***	.094 (.017)***	.095 (.018)***	.095 (.018)***	.096 (.018)***
Education level		.001 (.013)	-.007 (.013)	-.007 (.013)	-.007 (.012)	-.007 (.012)
Work experience		.009 (.001)***	.009 (.001)***	.009 (.001)***	.009 (.001)***	.009 (.001)***
Father's education		.014 (.008) ⁺	.013 (.008)	.013 (.009)	.012 (.009)	.012 (.009)
HCDPs index			.074 (.007)***	.075 (.007)***	.216 (.048)***	.063 (.030)*
<i>Level 2</i>						
HCDPs (country mean)					.081 (.083)	.065 (.079)
Institutional factor					.875 (.603)	-.011 (.010)
<i>Cross-level interaction</i>						
HCDPs*HCDPs (country mean)					-.006 (.006)	-.003 (.006)
HCDPs*institutional factor					-.135 (.047)**	.001 (.001)
<i>Variance components</i>						
Residual variance (Within)	.675 (.030)***	.641 (.029)***	.615 (.026)***	.611 (.026)***	.610 (.026)***	.610 (.026)***
Residual variance (Between)	.074 (.021)***	.069 (.019)***	.060 (.016)***	.076 (.021)***	.106 (.027)***	.110 (.024)***
Slope variance				.001 (.000)*	.001 (.000)*	.001 (.000)**
Intercept-slope covariance					-.006 (.002)**	-.007 (.002)**
n	8,575	8,267	8,159	8,159	8,159	8,159
R ²	-	.047	.092	-	-	-
AIC	21,067.6	19899.6	19,292.4	19,280.0	19,270.7	19,274.2
Deviance	21,061.6	19,883.6	19,274.4	19,260.0	19,240.7	19,244.2

Notes: Unstandardized coefficients; *p<.05; **p<.01; ***p<.001; n(Level 1) = 8,575 to 8,159; n(Level 2) = 28.

Figure 1 - Interaction plot depicting cross-level effect of HCDPs and HDI in predicting high relative salary rank

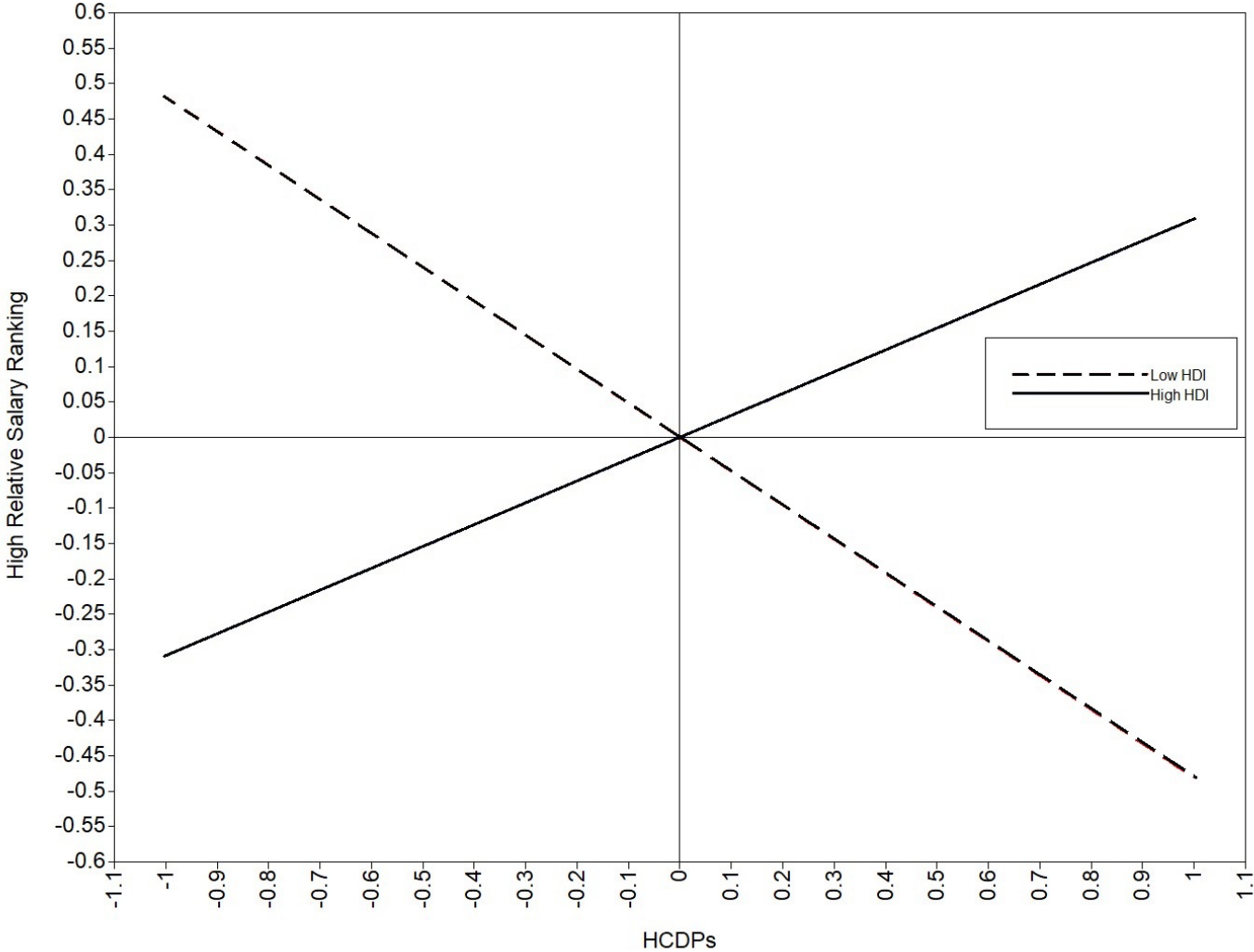


Figure 2 - Interaction plot depicting cross-level effect of HCDPs and HDI in predicting perceived financial success

