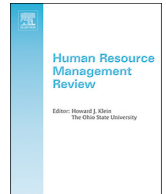




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Organizational career management practices and objective career success: A systematic review and framework

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ABSTRACT

The theorization of the relationship between organizational investments in career development and individual success remains underdeveloped, and empirical tests of this relationship, which have been dispersed among several disciplinary areas, have produced inconsistent results. Addressing these issues, the purpose of this article is to propose a theoretical framework that illustrates *why* and *how* organizational career management practices translate into career success and under *what* circumstances the relationship is effective. Using a systematic review of empirical studies on career management practices and objective success, we identify three theoretical mechanisms - developmental, informational, and relational - and two groups of contingency factors that explain this relationship. Our framework advances the extant literature on organizational career management and provides suggestions to companies for designing effective career management systems.

1. Introduction

Organizational career management (OCM) refers to the activities companies carry out to sustain their employees' career development (Baruch & Peiperl, 2000), helping them obtain promotions and pay raises, and assisting their transition into leadership positions (Vinkenburg & Weber, 2012). Over the last twenty-five years, the career literature has conceptualized “new” career models (e.g., boundaryless career, protean career) centered on individuals' proactivity (Arthur & Rousseau, 2001; Hall, 1996; Tomlinson, Baird, Berg, & Cooper, 2018) and it has acknowledged that career success has evolved into a concept broader than pay and status alone (Ng, Eby, Sorensen, & Feldman, 2005). Notwithstanding, research and practice have continued to place organizational career management, which aims at feeding the “talent pipeline”, among the most important challenges for organizations' human resources (HR) function (Clarke, 2013; De Vos & Cambré, 2017; Koch, Forgues, & Monties, 2017).

Theoretical research on OCM, which dates back to the 1970s (e.g., Bowen & Hall, 1977; Walker, 1978), initially focused on providing companies with guidelines and advice on the design of effective succession plans and later on the definition of OCM practices that either individually (Baruch, 1996, 1999) or as systems (Gunz, 1989; Lepak & Snell, 1999; Sonnenfeld & Peiperl, 1988) can support employees in reaching their career goals. However, with the exception of Rosenbaum's (1984) seminal work, which subsequent career studies have substantially overlooked, no authors have proposed a theoretical explanation of the relationship between organizational investments in career management and career success. The empirical research on career management is fragmented, since studies have been published in a variety of disciplinary areas (e.g., vocational psychology, labor economics, HR

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management), have tested OCM practices (e.g., mentoring, training, assessment centers) in isolation (e.g., *Dreher & Ash, 1990; *Georgakakis, Dauth, & Ruigrok, 2016; *Jansen & Vinkenburg, 2006) and have achieved ambiguous results (e.g., *Fagenson, 1989; *Whitely & Coetsier, 1993). Thus, no consolidated empirical research has stated the effectiveness of OCM practices either as single practices or as a system of practices (De Vos, Dewettinck, & Buyens, 2008).

We contribute to the theoretical and empirical career literature by proposing a theoretical framework that illustrates the relationship between OCM practices and individuals' objective career success (OCS). In developing this framework, we perform a systematic review (Denyer & Tranfield, 2009) of the empirical research that tests the effectiveness of OCM practices on OCS. This review approach is particularly appropriate for our research purpose since it can help us ascertain *why* and *how* a relationship between two variables occurs and under *what* circumstances it is most effective (Denyer & Tranfield, 2009, p. 682). In addition, the systematic review is useful in research on topics such as career development and success, which are characterized by interdisciplinary literature and empirical studies that adopt various definitions, measurements, and participants (Arthur, Hall, & Lawrence, 1989; Gunz & Peiperl, 2007).

Our theoretical framework makes two primary contributions to the career literature. First, it defines three theoretical mechanisms - developmental, informational, and relational - that explain *how* and *why* organizational investments in career development translate into individual career success, a topic that the literature has largely overlooked (e.g., Rosenbaum, 1984). The framework also advances the career literature that measures the diffusion of OCM practices (e.g., Baruch, 1996; Gutteridge & Otte, 1983) but does not explain how they produce their effects. This process must be described and understood both if career theory is to overcome a purely descriptive and "atheoretical" approach to career development (Baruch & Peiperl, 2000) and if companies and HR departments are to make well-guided investments in employees' development (Cappelli & Keller, 2014). These benefits are possible because the proposed framework offers a theoretically sound and evidence-based (Gill, 2018) explanation of the effects of OCM practices on individual career success. Second, since our review focuses on empirical studies, we provide an overview of OCM practices' efficacy in affecting OCS. In doing so, we identify and include in our framework two sets of contingency factors that can affect the relationship between OCM practices and individual career success - that is, factors that explain under *what* circumstances this relationship holds. This effort can also guide HR departments in identifying career development practices that can be effective in organizations, given their specific contingencies.

1.1. The role of organizations in managing individual careers

According to Orpen (1994, p. 28), OCM refers to "practices deliberately established by organizations, to improve the career effectiveness of their employee, establishing what employees want from their careers, providing appropriate career opportunities for employees, identifying which employees deserve these opportunities and then providing them". These practices include a wide range of programs and interventions (De Vos et al., 2008) that companies design "to promote and contribute to business goals [while giving individuals] the opportunity to fulfill their personal needs and aspirations" (Doyle, 2000, p. 229). In an analysis of the evolution of the organizational career models, Clarke (2013) showed that in many companies, employees take responsibility for their career management, but the organization continues to support their professional development through career management initiatives.

Rosenbaum's (1984) seminal work explained the theoretical rationale that relates organizational investment to individual career development. Building on Turner's (1960) contribution, Rosenbaum applied to organizational career management the notion of "sponsored mobility", as opposed to the predictions of human capital theory (Becker, 1964), which posits that individual achievements are the result of individuals' abilities and investments in education and training and that there are no barriers to career mobility, as individuals control the investments that determine their careers. Rosenbaum (1984) suggested instead that individual investments in developmental actions are lower and not comparable to those made by organizations, which invest primarily in "chosen" individuals who have the potential to grow into leadership positions (Spence, 1973). Given the difficulty and the costs involved in obtaining information about employees' abilities and potential, employers use information such as their past jobs, when they have advanced, and the rate at which they have advanced (Rosenbaum, 1984) as signals of their abilities and potential. In a dynamic process that occurs over time, organizational investments convert into individual achievements, which are both the starting point for further career development and the basis for selecting those who will advance in the corporate hierarchy.

The process Rosenbaum (1984) sketched is one of the rare efforts to define theoretically the organizational mechanisms through which companies sustain individual career development. Studies published in the 1970s focused primarily on career planning (e.g., Bowen & Hall, 1977; Walker, 1978) and offered companies practical solutions for the design of their succession plans. Since most studies published after the beginning of the 1980s (e.g., Baruch, 1996, 1999) were concerned with the diffusion and implementation of OCM practices in companies, the mechanisms Rosenbaum (1984) outlined remained substantially implicit and neglected in most of the subsequent career studies (Baruch, Szűcs, & Gunz, 2015).

1.2. Organizational career management practices and career success

While the definitions of OCM converge in identifying it as a set of practices, there is little consensus on the specific practices involved, which number anywhere from nine (Gutteridge & Otte, 1983) to thirty-two (Gutteridge, 1993). Table 1 compares the lists of practices proposed by the literature, which repeat several activities but differ with respect to labels, content, and the number of practices.

The practices most frequently included in these lists are (see Baruch, 2003 for a larger set of definitions): career counselling, which is the process of discussing with employees their current job activities and performance, personal skills, and career

Table 1
OCM practices: relevant literature.

Gutteridge and Orte (1983)	Gutteridge (1993)	Baruch (1996)	Baruch (1999)	Baruch and Peiperl (2000)	Eby et al. (2005)	De Vos, Dewettinck, and Buyens (2009)
<i>Job posting</i>						
Career counselling/discussion	Career planning workshops	<i>Performance appraisal as a basis for career planning</i>	<i>Posting (advertising) internal job openings</i>	<i>Performance appraisal as a basis for career planning</i>	Career planning workshops	<i>Performance evaluation as a basis for career planning</i>
Succession planning	<i>Pre-retirement workshops</i>	Career counselling by direct supervisor	<i>Formal education</i>	<i>Assessment centers</i>	<i>Formal mentoring programs</i>	Feedback about performance by manager
<i>Career pathing</i>	Computer software	HRM unit	<i>Lateral moves</i>	Peer appraisal	Succession planning	Formal career discussions with line manager
Career planning workshops	Promotability forecasts	<i>Books and/or pamphlets on career issues.</i>	<i>Retirement preparation programs</i>	Upward (subordinate) appraisal	<i>Outplacement</i>	<i>Mentoring</i>
<i>Career resource centers</i>	Psychological testing	<i>Common career paths</i>	<i>Booklets and/or pamphlets on career issues</i>	Career counselling by direct supervisor	<i>Career ladders and paths</i>	Job enrichment
<i>Outplacement</i>	Assessment centers	<i>Assessment centre</i>	<i>Dual ladder</i>	HR Department	<i>Job posting</i>	Developmental task
<i>Skills inventory</i>	Interview process	<i>Dual ladder</i>	<i>Induction</i>	<i>Formal mentoring</i>	Individual counselling	Career discussions with HR professionals
	Job assignment	<i>Postings regarding internal job openings</i>	<i>Assessment and development centers</i>	<i>Career workshops</i>	External training	Workshops on career opportunities within the organization
	<i>Career ladders or dual-career ladder</i>	<i>Appraisal committees</i>	<i>Mentoring</i>	<i>Common career paths</i>	Tuition reimbursement	<i>Personal development plan</i>
	<i>Career resource center</i>	<i>Formal education</i>	<i>Career workshops</i>	<i>Dual ladder</i>	<i>In-house training</i>	<i>Skill inventory</i>
	Individual counselling or career discussion with supervisor or line manager	<i>Written personal career planning programmes</i>	Career counselling by direct manager and by the HRM unit	<i>Written personal career planning</i>	Promotability forecasting	
	Individual counselling or career discussion with senior career adviser	<i>Retirement preparation programmes</i>	Succession planning	<i>Retirement preparation programs</i>	Job rotation	
	Individual counselling or career discussion with personnel staff	<i>Mentoring</i>	<i>Special programs for ethnic minorities, women, disabled, dual career couples</i>	<i>Succession planning</i>	Developmental assessment centers	
	Individual counselling or career discussion with specialised counsellor	Performance appraisal as a basis for salary review	<i>Special programs for expatriates and re-patriates</i>	<i>Books and/or pamphlets on career issues</i>	<i>Career resource systems</i>	
	Informal canvassing	Succession planning	<i>Special programs for high flyers</i>	<i>Postings regarding internal job openings</i>	<i>Career planning workbook</i>	
	<i>Job posting</i>	<i>Quality circles</i>	<i>Building psychological contracts</i>	<i>Formal education</i>		
	Skills inventories or skills audit	<i>Training programmes for managers</i>	Secondments			
	Replacement or succession planning					
	Staffing committee					
	Internal placement system					
	Job enrichment or job design					
	Job rotation					
	<i>In-house training and development programs</i>					
	External seminars or workshops					
	Tuition reimbursement					
	Supervisor training in career discussion					
	Dual-career couple programs					
	<i>Mentoring system</i>					
	Employee orientation program					

Practices in **bold** are present in all the lists (even with different labels). Practices in *italic* are present in at least three lists but not in all of them (even with different labels).

development objectives; succession planning, which supports the identification and development of key individuals for executive positions; and career-planning workshops that help employees make career decisions and set goals through the discussion with other people in similar situations and/or human resources professionals. Other practices frequently included in these lists are job postings, an internal recruitment channel that gives employees the opportunity to apply to fill vacancies in the organization; outplacement and preretirement programs that help sustain workers during job transitions; assessment centers for the evaluation of workers' competences and potential; dual-ladder systems, which provide promotions and rewards to employees based on their career orientation (i.e., technical/scientific versus managerial); and mentoring programs that support workers with the personal and professional insights of experienced individuals.

Although organizations tend to offer OCM practices in combination (Baruch, 1999), there is no “generally accepted typology of OCM practices” (De Vos et al., 2008, p. 162). A few theoretical and empirical studies have suggested how OCM practices work as groups, but they have had a limited impact on the later career literature. The major theoretical effort in this case is represented by the career systems models, which are frameworks that link the organizational structure's characteristics (Gunz, 1989), organizational strategy (Sonnenfeld & Peiperl, 1988), and individual competencies (Lepak & Snell, 1999) to the investments organizations should devote to employees to support their career development. On the empirical side, building on exploratory studies, a few authors (i.e., Baruch & Peiperl, 2000; De Vos et al., 2008; Eby, Allen, & Brinley, 2005) have proposed categorizations of OCM practices based on their adoption by companies and how they support individual professional development.

One of the main limitations of these studies is that they do not consider the effect of the proposed OCM typologies or taxonomies on OCS, so they neglect OCM activities' original goal. We know from the career literature that career success can be both subjective, referring to an individual's satisfaction with all aspects of his or her career (Greenhaus, Parasuraman, & Wormley, 1990), and objective, referring to tangible professional achievement as evaluated by others (Judge, Cable, Boudreau, & Bretz, 1995). The primary purpose of OCM practices is to support employees' professional achievements based on organizational goals by rewarding them with promotions (e.g., *Campion, Cheraskin, & Stevens, 1994; *Cannings, 1988; *Wakabayashi & Graen, 1984), salary (e.g., *Dohmen, Kriechel, & Pfann, 2004; *Suutari & Brewster, 2003; *Turban & Dougherty, 1994), and movement to the upper echelons (e.g., *Bozionelos, 2003; *Kirchmeyer, 1998; *Tharenou, Latimer, & Conroy, 1994). In other words, companies provide OCM activities with the primary purpose of increasing the individual's productivity and professional development, so subjective career success is, from the organization's point of view, a byproduct of this process.

Moving from the limitations of the theoretical and empirical OCM literature, we use a systemic literature review to develop an overarching framework (the “OCM-OCS framework” hereafter) that explains the theoretical rationale (the *why*) and the mechanisms (the *how*) that underlie the relationship between OCM practices and OCS.

We make two primary contributions to the career literature. First, we contribute to the “thin” (Baruch & Peiperl, 2000, p. 348) theoretical basis of OCM that, with the notable exception of Rosenbaum (1984), has not explained the relationship between OCM practices and career success. The purpose of our framework is to develop Rosenbaum's (1984) career process, which did not describe which OCM practices are involved in individuals' career development and their effects on career attainment. In this way, we also add to the career literature that has proposed various classifications of OCM practices but has never considered their effects on OCS as a criterion for grouping them. Second, our theoretical framework includes the contingency factors (under *what* circumstances) that affect the main relationship. Drawing on the results of the empirical studies that are included in the systematic review, we identify the conditions under which OCM practices can be more or less effective in increasing individual career success, thereby contributing to the empirical literature on OCM practices and providing managerial implications. Finally, our framework and its functioning inform the formulation of a set of research propositions that can guide future empirical research.

2. Method

Denyer and Tranfield (2009, p. 671) defined the systematic review as “a specific methodology that locates existing studies, selects and evaluates contributions, analyses and synthesizes data, and reports the evidence in such a way that allows reasonably clear conclusions to be reached about what is and is not known”. Unlike narrative approaches, systematic reviews are based on replicable methods that minimize bias related to the identification, selection, and analysis of studies. In reviewing and synthesizing the literature, we followed the stages Tranfield, Denyer, and Smart (2003) proposed for a systematic review: planning, executing, and reporting.

2.1. Planning

The first stage of a systematic review consists of identifying the key data sources that are consistent with the research's purpose. We limited our sources to articles published in scholarly (peer-reviewed) journals written in English. We chose a set of electronic databases that are among the most comprehensive databases in the social sciences: EconLit, Psychology and Behavioral Sciences Collection, Business Source Premier, SocINDEX with Full Text (EBSCO), and Web of Science (ISI). We also focused on empirical articles because, as evidence-based management suggests (Briner, Denyer, & Rousseau, 2009; Gill, 2018; Pfeffer & Sutton, 2006), studies on organizational practices (e.g., OCM) that seek to support management processes and decision-making should be based on evidence. In the academic literature, evidence is produced by empirical research that, as in our case, tests the efficacy of a practice in delivering its expected outcomes. We reviewed all articles independently to determine whether they met our predefined criteria, which are illustrated in the following paragraph, and then discussed ambiguous cases to achieve agreement.

2.2. Executing

To identify and select the academic studies that are relevant to our research, we conducted our search in two steps. First, we performed a literature search for studies that listed OCM practices among their key words. To identify these key words, we referred to studies that listed OCM practices (Table 1), creating a list of twenty-six key terms, some of which refer to an OCM practice (e.g., training) and others that can be combined to define one or more OCM practices (e.g., “dual*” as a part of “dual ladder” or “dual career couple”). The twenty-six key terms used in the analysis are: job posting*, education, appraisal, counselling, counselling, lateral, job rotation*, *retirement, succession, mentor*, path*, dual*, book*, written, assessment, development*, workshop*, induction, orientation, network*, training, plan*, inventory, talent, *potential, and OCM. Next, we followed the same steps to find articles on OCS. After reading studies on the measures of OCS (Dries, Pepermans, Hofmans, & Rypens, 2009; Ng et al., 2005), we identified eight key terms (career, success, advancement*, promotion*, salary, top, pay, hierarch*) that reflect the three measures that are usually used to measure OCS (Dries et al., 2009): salary, promotions, and hierarchical level.

We ran our search in the electronic databases with multiple search strings that combined the eight key terms related to OCS (e.g., success AND advancement) with each of the twenty-six key terms related to OCM practices (e.g., success AND training). We extracted all the articles (as of May 2017) whose abstracts and/or titles contained combinations of the keywords, without restricting the date of publication. This primary search produced more than 100,000 articles, some of which were not relevant to our study (e.g., articles on students' academic achievement). We used the filter Subject Thesaurus Term (in EBSCO databases) and Research Areas (in Web of Science) to restrict the sample to 5331 articles, selecting terms (e.g., personnel management) and areas (e.g., business economics) that were consistent with our research.

Next, we read the selected articles' titles and abstracts and excluded studies that did not focus on OCM practices' effect on OCS. We considered only empirical studies that collected and analyzed primary data, so literature reviews, meta-analyses, and theoretical articles were excluded. While these articles are not included in the review, we consulted some of them in developing the OCM-OCS framework to conceptualize the process and the links in the framework. Then, we excluded articles that analyzed the career success of professional groups, such as academics (Dowd & Kaplan, 2005), which are strongly regulated by country-level institutional rules that constrain organizations (i.e., universities) in their efforts to manage individuals' career development. Finally, we excluded articles that analyze informal practices, as OCM refers to “practices deliberately established by organizations” (Orpen, 1994, p. 28). This procedure produced 73 journal articles that contain 128 empirical tests of the relationship between an OCM practice and one or more indicators of career success.

2.3. Reporting

The final step of a systematic review produces a synthetic description of the studies and then reports the results of the analysis. Most of the seventy-three studies selected were conducted in North America ($n = 39$), but some were conducted in Europe ($n = 16$), Asia ($n = 7$), Australia ($n = 6$), and other parts of the world ($n = 5$).

Most of the studies adopted a cross-sectional approach ($n = 44$), while others were longitudinal analyses ($n = 29$). Most of the studies' data were collected through surveys ($n = 48$) of managers and professionals, and the sizes of the samples the articles analyzed varied from thirty to thousands. Twenty-four studies focused on individuals who worked for one company only, but the company sizes and industries varied.

The selected articles were published between 1969 and 2017, with forty-five studies published after 2000 and fourteen after 2010. The articles were published in thirty-five journals, but twenty-five of the articles appeared in just three journals (*Journal of Applied Psychology*, *The International Journal of Human Resource Management*, and *Academy of Management Journal*).

Table 2 provides information about the 128 empirical analyses (labeled “a” to distinguish them from the number of articles, labeled “n”) in the seventy-three articles. We found empirical tests for only eight out of the more than thirty OCM practices defined in the literature (Table 1). The empirical analyses used promotion ($a = 56$), salary ($a = 53$), and hierarchical level ($a = 19$) as measures of OCS. Most of the empirical analyses verified a positive relationship between OCM practices and OCS ($a = 73$), but approximately

Table 2
Summary of the results.

	N. of empirical analyses (a)	Objective career success measure (as % of a)			Effect on career success (as % of a)			
		Salary	Hierarchical position	Promotion	Positive	Negative	Null	Mixed
Training	18	27,8%	22,2%	50,0%	61,1%	–	22,2%	16,7%
International assignment	16	43,8%	6,3%	50,0%	50,0%	12,4%	18,8%	18,8%
Developmental assignment	9	44,4%	–	55,6%	55,6%	–	22,2%	22,2%
Assessment and development centre	11	45,4%	36,4%	18,2%	100,0%	–	–	–
Performance appraisal	14	35,7%	14,3%	50,0%	57,1%	–	42,9%	–
Mentoring	51	47,1%	9,8%	43,1%	51,0%	2,0%	47,0%	–
Networking	9	33,4%	33,3%	33,3%	44,4%	0,0%	55,6%	–
Total	128	41,4%	14,8%	43,8%	57,0%	2,3%	34,4%	6,3%

Table 3
Results of the review.

Reference theory	Studies	OCM practice	Research method*	Research setting	Effect on OCS**	Journal
Human capital	*De Luis Carnicer, Martinez Sanchez, Perez Perez, & Vela Jimenez, 2004 *Fang et al., 2009 *Metz, 2004 *Benson & Pattie, 2008	Training Training Training International assignment	CS – Survey on a sample of companies CS – Administrative data on a sample of companies CS – Survey on a sample of companies CS – Administrative data one company	1132 Spanish employees across industries 4105 Canadian professionals across industries 848 Australian employees from banking sector 365 American employees of a professional service firm company	Promotion = 0 Salary = 0/+ Promotion = 0/+ Hierarchical position = + Promotion = – Salary = 0	Personnel Review International Journal of Manpower Journal of Managerial Psychology The International Journal of Human Resource Management
	*Ramaswami, Carter, & Dreher, 2016 *Kraimer et al., 2009	International assignment International assignment	CS – Administrative data on a sample of companies CS – Survey on a sample of companies	440 young employees across countries and industries 84 American employees across industries	Salary = + Promotion = –/+	Human Relations Human Resource Management
	*Campion et al., 1994	Developmental assignment Developmental assignment	CS – Survey on a sample of companies CS – Survey on one company	84 American employees across industries 138 American managers and professional of a pharma company	Promotion = + Promotion = + Salary = +	Human Resource Management Academy of Management Journal
Human capital / Signaling theory	*Dekker et al., 2002	Training	L – Administrative data on a sample of companies	1343 Dutch employees across industries	Promotion = 0	International Journal of Manpower
Human capital / Signaling theory / Social capital theory	*Biemann & Braakmann, 2013	International assignment	CS – Administrative data on a sample of companies	3521 German employees across industries	Salary = +	The International Journal of Human Resource Management
Human capital / Social network theory	*Georgakakis et al., 2016	International assignment	CS – Administrative data on a sample of companies	163 Managers across countries and industries	Promotion = –/+	Journal of World Business
Human capital / Tournament model	*Melero, 2010 *Wayne et al., 1999	Training Training	L – Administrative data on a sample of companies L – Survey on one company	7894 UK employees across industries 245 American employees of a chemical company	Salary = + Promotion = + Salary = 0	Industrial Relations Journal of Organizational Behavior
Human capital / Tournament model / Credentialist theory	*Sheridan et al., 1997	Training	L – Administrative data one company	338 American managers from a public utility company	Promotion = +/0	Journal of Business and Psychology
Tournament model	*Cannings, 1988 *Hurlley, Wally, Segrest, Scandura, & Sonnenfeld, 2003 *Pema & Mehay, 2010	Performance appraisal Performance appraisal Performance appraisal	CS – Survey on one company CS – Administrative data one company L – Administrative data one company	648 Canadian managers of a service company 502 American managers of a service company 27,965 American employees of a public administration	Promotion = + Promotion = + Promotion = +	Industrial and Labour Relations Review Personnel Review Labour Economics
Signaling theory	*Campbell & Bray, 1993 *Grant & Bray, 1969 *Hinrichs, 1978 *Jansen & Stoop, 2001 *Jansen & Vinkenburg, 2006 *Mitchel, 1975	Assessment center Assessment center Assessment center Assessment center Assessment center Assessment center	L – Administrative data on a sample of companies L – Administrative data on a sample of companies L – Administrative data one company L – Administrative data one company L – Administrative data one company	509 American middle managers from ICT industry 348 American middle managers from ICT industry 30 American managers from a manufacturing company 679 Dutch managers from a postal company 456 Dutch managers from a postal company	Promotion = + Salary = + Hierarchical position = + Salary = + Salary = + Salary = +	Personnel Psychology Journal of Applied Psychology Journal of Applied Psychology Journal of Applied Psychology Journal of Vocational Behavior Journal of Applied Psychology (continued on next page)

Table 3 (continued)

Reference theory	Studies	OCM practice	Research method*	Research setting	Effect on OCS**	Journal
Career development theory		Assessment center	L – Administrative data one company L – Administrative data one company	254 American managers from an oil company 4846 American managers from an ICT company	Hierarchical position = + Hierarchical position = +	Journal of Applied Psychology Journal of Applied Psychology
	*Moses & Boehm, 1975	Assessment center	L – Administrative data one company	1097 American managers from a telephone company	Hierarchical position = +	Journal of Applied Psychology
	*Ritchie & Moses, 1983	Assessment center	L – Administrative data one company	94 American middle managers from electronics company	Hierarchical position = +	Journal of Applied Psychology
	*Wollock & McNamara, 1969	Assessment center	CS – Survey on one company	72 Japanese employees of a retail company	Promotion = + Salary = +	Journal of Applied Psychology
	*Wakabayashi & Graen, 1984	Assessment center	CS – Survey on a sample of companies	432 Hong Kong middle managers across industries	Promotion = + Salary = 0	Journal of Management Studies
	*Aryee et al., 1996	Mentoring	CS – Survey on a sample of companies	552 American managers and professionals across industries	Salary = 0	Personnel Psychology
	*Chao, Walz, & Gardner, 1992	Mentoring	CS – Survey on one company	249 American managers of health-care company	Promotion = +	Journal of Organizational Behavior
	*Fagenson, 1989	Mentoring	CS – Survey on one company	292 American managers across industries	Hierarchical position = 0	Journal of Management
	*Kirchmeyer, 1998	Mentoring	CS – Survey on a sample of companies	292 American managers across industries	Hierarchical position = + Salary = +	Journal of Management
		Networking	CS – Survey on a sample of companies	864 American professionals across industries	Salary = 0	Journal of Management
		Mentoring	CS – Survey on a sample of companies	269 American professionals of an education company	Promotion = +	Industrial Relations
	*Johnson & Scandura, 1994	Mentoring	CS – Survey on one company	848 Australian managers of banking industry	Promotion = +	Journal of Career Development
	*Lee & Nolan, 1998	Mentoring	L – Survey on a sample of companies	97 UK employees across industries	Promotion = +	Applied Psychology
	*Meitz, 2009	Mentoring	L – Survey on a sample of companies	1162 American employees across industries	Promotion = + Salary = +	The Journal of Social Psychology
*Orpen, 1995	Mentoring	CS – Survey on a sample of companies	236 Australian employees across industries	Promotion = 0	Journal of Applied Psychology	
*Ragins & Cotton, 1999	Mentoring	L – Survey on a sample of companies	2431 Australian employees across industries	Promotion = + Salary = 0	Journal of Vocational Behavior	
*Singh et al., 2009	Mentoring	L – Survey on a sample of companies	3434 Australian employees across industries	Promotion = 0	Academy of Management Journal	
*Tharenou, 2001	Mentoring	L – Survey on a sample of companies	245 American employees of a chemical company	Hierarchical position = – Promotion = 0	Australian Journal of Management	
*Tharenou, 2005	Mentoring	L – Survey on one company	404 American employees across industries	Salary = 0	Journal of Organizational Behavior	
*Wayne et al., 1999	Mentoring	CS – Survey on a sample of companies	148 Belgian employees across industries	Promotion = + Salary = +	Academy of Management Journal	
*Whiteley, Dougherty, & Dreher, 1991	Mentoring	CS – Survey on a sample of companies	264 UK employees of a sample of universities	Promotion = + Salary = 0	Organization Studies	
*Whiteley & Coetsier, 1993	Mentoring	CS – Survey on a sample of companies	264 UK employees of a sample of universities	Hierarchical position = 0	International Journal of Organizational Analysis	
*Bozionelos, 2003	Mentoring	CS – Survey on a sample of companies	264 UK employees of a sample of universities	Hierarchical position = +	International Journal of Organizational Analysis	
Social capital theory		Networking	CS – Survey on a sample of companies			Organizational Analysis

(continued on next page)

Table 3 (continued)

Reference theory	Studies	OCM practice	Research method*	Research setting	Effect on OCS**	Journal
	*Bozionelos & Wang, 2006	Mentoring	CS – Survey on one company	113 Chinese employees of a food company	Promotion = 0	Journal of Human Resource Management
	*Seibert et al., 2001	Networking	CS – Survey on one company	113 Chinese employees of a food company	Promotion = 0	Journal of Human Resource Management
	*Turban, Moake, Wu, & Cheung, 2017	Mentoring	CS – Survey on a sample of companies	448 American employees across industries	Promotion = + Salary = +	Academy of Management Journal
	*Eddleston et al., 2004	Mentoring	CS – Survey on a sample of companies	330 American employees across industries	Promotion = + Salary = +	Journal of Career Development
Social network theory	*Gong, Chen, & Yang, 2014	Networking	CS – Survey on a sample of companies	676 American managers and professionals across industries	Hierarchical position = 0 Salary = 0	Journal of Managerial Psychology
	*Higgins & Thomas, 2001	Mentoring	CS – Survey on a sample of companies	246 Taiwanese employees across industries	Promotion = +	Social Behavior and Personality
	*Metz, 2009	Networking	L – Survey on a sample of companies	130 American professionals across industries	Promotion = +	Journal of Organizational Behavior
	*Bozionelos, Bozionelos, Kostopoulos, & Polychroniou, 2011	Mentoring	CS – Survey on a sample of companies	848 Australian managers of banking industry	Promotion = 0	Applied Psychology
Social learning theory	*Kay, Hagan, & Parker, 2009	Mentoring	CS – Survey on a sample of companies	194 UK middle managers across industries	Promotion = 0 Salary = +	Career Development International
Social capital theory / Social learning theory	*Dreher & Ash, 1990	Mentoring	CS – Survey on a sample of companies	320 American employees across industries	Promotion = + Salary = +	Journal of Applied Psychology
Social exchange theory / Social learning theory / social network theory	*Carpenter et al., 2001	Mentoring	CS – Survey on a sample of companies	603 Canadian professionals across industries	Salary = +	Law and Policy
Resource-based view	*Magnusson & Boggs, 2006	International assignment	L – Administrative data on a sample of companies	245 American CEOs across industries	Salary = 0	Academy of Management Journal
Career capital	*Singh et al., 2009	International assignment	CS – Survey on a sample of companies	78 American CEOs across industries	Promotion = +	Journal of International Management
		Training	L – Survey on a sample of companies	236 Australian employees across industries	Salary = + Promotion = 0	Journal of Vocational Behavior
Internal Labour Market	*Dohmen et al., 2004	Developmental assignment	L – Survey on a sample of companies	236 Australian employees across industries	Salary = + Promotion = 0	Journal of Vocational Behavior
Person-job fit	*Lyness & Heilman, 2006	Developmental assignment	L – Administrative data one company	17,610 Dutch employees from an aircraft company	Salary = + Promotion = +/0	Journal of Population Economics
Equity theory / Expectancy theory	*Oh & Lewis, 2013	Performance appraisal	L – Administrative data one company	502 American managers of a financial service company	Promotion = +	Journal of Applied Psychology
No reference theory	*Metz, 2009; *Rowley, Kang, & Lim, 2016; *Tharenou, 2001, 2005; *Tharenou et al., 1994	Performance appraisal	L – Administrative data on a sample of companies	120,598 American employees of public administrations	Promotion = + Salary = +	Public Management Review
	*Doherty & Dickmann, 2012; *Hamori & Koyuncu, 2011; *Lyness & Thompson, 2000; *Sutari & Brewster, 2003	International assignment	L – Administrative data on a sample of companies	78 American CEOs across industries	Salary = 0	Journal of International Management
	*Cox & Harquail, 1991; *Noback et al., 2016; *Wakabayashi & Graen, 1984	Performance appraisal	L – Administrative data one company	502 American managers of a financial service company	Promotion = +	Journal of Applied Psychology
	*Blake-Beard, 1999; *Blickle, Witzki, & Schneider, 2009; *Bozionelos, 2006, 2008; *Chang, Feng, & Shyu, 2014; *Gubbins & Garavan, 2016; *Kirchmeyer, 2002; *Koyuncu et al., 2014; *Turban & Dougherty, 1994	Mentoring	L – Survey on a sample of companies	194 UK middle managers across industries	Promotion = 0 Salary = +	Career Development International

Note: * CS = cross-sectional research, ** Effect on the measure of career success ('+' positive, '0' null or mixed, '-' negative).

one-third ($a = 44$) found no statistically significant relationship. Only three analyses showed a negative relationship, while the results were mixed in eight cases (e.g., curvilinear relationship or different results for different samples).

The final phase of the systematic review concerns the reporting of “what is known and unknown about the questions addressed in the review” (Denyer & Tranfield, 2009, p. 688). We report these results in the next section.

3. Results

Our review reveals the theoretical underpinnings of the relationship between OCM practice and OCS (the results of this analysis and the main characteristics of the reviewed articles are in Table 3). Our study confirms the theoretical fragmentation of the literature and shows that more than a third of the studies (25 out of 73) are “atheoretical”, as the hypothesized relationship between OCM practice and OCS is not explicitly sustained by any theory. In some cases, the lack of a theoretical framing relates to the fact that the relationship between the OCM practice and OCS was not the study's core analysis, while in other cases the authors referred to the results of previous empirical studies to sustain the hypothesized relationship.

Our analysis of the various theories adopted by the studies in depicting the relationship between OCM practices and OCS identified three main mechanisms - developmental, informational, and relational - that affect three outcomes - competencies, information, and relationships - respectively. Such outcomes lead to career success either directly or indirectly through mediating factors (e.g., individual performance). In addition, most OCM practices can influence more than one outcome. The next sections describe the three mechanisms that relate OCM practices to OCS and the contingency factors that affect these relationships.

3.1. The developmental mechanism: OCM practices that enhance competencies

The developmental mechanism originates from OCM practices that increase the individual competencies (knowledge, skills, and abilities) that are necessary to job performance, which is an input for promotion and compensation decisions. As the review of the studies reveals, two main theories - human capital theory and social learning theory - underpin this mechanism.

Human capital theory (Becker, 1964) posits that the labor market offers opportunities and that individuals' abilities, education, and effort lead to productivity and performance, which is the basis for promotions and compensation. Human capital theory is the reference theory in most of the studies that test the effects of practices such as training, developmental assignments, and international assignments on career success. Since training improves employees' skills, it enhances their job performance and consequently, their compensation. Training should also increase the likelihood of promotion when it improves the skills that are required to be productive at higher-level jobs. International assignments increase workers' - particularly managers' - human capital because they expose them to new organizational contexts, languages, and institutional environments (*Benson & Pattie, 2008) and give them a chance to gain important general-management skills. Such expertise may be particularly relevant to career advancement in global companies, as the resource-based view also suggests (*Carpenter, Sanders, & Gregersen, 2001; *Magnusson & Boggs, 2006). Developmental assignments and lateral moves (or job rotation) require individuals to accomplish tasks for which they may not yet be fully qualified (*Lyness & Thompson, 2000). Challenging situations provide them with the opportunity to acquire new knowledge when they face dynamic and problematic settings in which they must make decisions under uncertainty. Such challenges reveal deficiencies in their current competencies, resulting in their desire to close these gaps through learning and experience (McCauley, Eastman, & Ohlott, 1995).

The second theory that underpins the developmental mechanism is social learning theory (Bandura, 1977), which posits that individuals may acquire new skills and/or change their behaviors by observing others (“models”), a process referred to as vicarious learning or modeling. The OCM practice of mentoring offers a fertile ground for modeling, as mentoring is embedded in the relationship between a mentor and a protégé, who acquires important skills by observing the model (Malhotra & Singh, 2016).

3.2. The informational mechanism: OCM practices that provide information

The informational mechanism originates from OCM practices that provide career-related information to the organization and its employees. These mechanisms offer organizations information that can be used in promotion and compensation decisions and individuals the feedback they need for their professional development. Our review reveals one main theoretical perspective: the signaling theory that underpins this mechanism.

As originally proposed, signaling theory (Arrow, 1973; Spence, 1973) acknowledges that it can be costly for managers who are recruiting new employees to obtain accurate information about a candidate's potential to benefit the organization, so they often use formal education as a signal of future success. Since information asymmetry continues after employees are hired, as individuals often occupy a variety of jobs with differing and seldom comparable requirements and are evaluated by various supervisors, organizations base promotions on job attainments such as past performance and results, which are considered signals of individual ability (Rosenbaum, 1984). Rosenbaum (1984, p. 287) observed that “employees who can exhibit short-term performance, perhaps even to the detriment of long-term outcomes, will be promoted in this system”. Our review reveals that articles that test the effect of practices such as assessment centers, performance management, training, and international assignment on career success often explicitly or implicitly adopt signaling theory as the explicative theory (often together with other theoretical models). Assessment centers use situational exercises to identify individuals who have managerial and leadership potential and who will contribute to organizational performance by obtaining reliable information about individuals' skills that are useful in upper-level positions (Huck, 1973). Training can also serve as a screening device because firms learn about workers' abilities and skills during training activities and can promote

the workers who best fit the requirements to the next jobs in the hierarchy (*Dekker, De Grip, & Heijke, 2002). International assignments also provide a signal regarding employees' managerial potential. Since employees in these jobs go through a selection process to obtain the assignment, those who succeed tend to be motivated and competent and to seize the opportunity to increase their competencies and experience while they work abroad (*Biemann & Braakmann, 2013). Finally, and more intuitively, information gathered through the performance management process provides the organization with useful signals for promotion decisions, according to a career system that Rosenbaum (1984, p. 25) refers to as the "tournament model". The tournament model of careers contends that organizations' career management systems operate similar to sports tournaments, with a set number of rounds and with only the winners of each round allowed to compete at the next level. Performance appraisals that compare employees to one another or to certain standards (Boswell & Boudreau, 2002) offer a basis on which to decide who wins each tournament round. Organizations then usually base promotion decisions on a combination of performance and information about potential (Cappelli & Keller, 2014).

The informative purpose of performance management is directed toward the organization, but it can also motivate individuals. Both equity theory (Adams, 1965) and expectancy theory (Vroom, 1964) argue that employees' motivation increases when their performance is recognized by the appraisal system, and higher motivation can improve future performance (*Oh & Lewis, 2013). Because the motivational aspects of OCM practices are as critical to explaining the process that leads to career success as they are under-considered by the articles we reviewed, we elaborate on this issue when we present the complete OCM-OCS framework.

3.3. The relational mechanism: OCM practices that affect relationships

The relational mechanism originates from OCM practices that provide employees the support and visibility of their managers and peers. Our review reveals that two main theoretical perspectives - development career theory (Moore, Gunz, & Hall, 2007) and social capital theories - underpin this mechanism.

The seminal work of Levinson, Darrow, Klein, Levinson, and McKee (1978) is one of the most useful theoretical bases for studies that address individual career development. The central thesis of Levinson and colleagues' model was that people, no matter their occupation or background, grow through four life stages, each requiring the completion of several activities and psychological adjustments. These life stages - preadulthood, early adulthood, middle adulthood, and late adulthood - are closely associated with biological age. According to Levinson (1986), one of the key factors in supporting the individual in accomplishing the personal and professional challenges of each life stage is the person's relationships with significant others, such as friends, lovers, bosses, teachers, and mentors. Kram's (1983, 1985) influential studies on mentoring translated Levinson's (1986) intuition about the role of external actors in supporting the individual's life cycles into the field of organizational career development.

Mentoring is an interpersonal relationship between a less-experienced individual (the protégé or mentee) and a more-experienced individual (the mentor), whose goal is to advance the protégé's personal and professional development. Mentors exert their support through career-related functions and psychosocial functions (Kram, 1985), the former of which (i.e., sponsorship, exposure and visibility, coaching and challenging assignments) are strong predictors of compensation and advancement (Allen, Eby, Poteet, Lentz, & Lima, 2004). Mentors offer advice and "inside" information about the organizational culture and protocols that enable protégés to adapt rapidly to performance expectations (*Aryee, Wyatt, & Stone, 1996; *Orpen, 1995; *Singh, Ragins, & Tharenou, 2009). In addition, mentors advocate on their protégés' behalf, recommending them for leadership positions and communicating their accomplishments to senior management (*Kirchmeyer, 2002; *Lee & Nolan, 1998). Consequently, a mentor's sponsorship opens doors to promotions and salary increases (*Bozionelos, 2008; *Eddleston, Baldrige, & Veiga, 2004) and increases protégés' visibility, which is especially important in organizational tournaments, where there might be incomplete or biased information (Longenecker, Sims Jr, & Gioia, 1987).

Social capital theories provide the second perspective on the role of relationships in fostering career success. Social capital is defined as any aspect of social structure that creates value and facilitates the actions of those who are in that social structure (Coleman, 1990). In proposing a social capital model of career success, *Seibert, Kraimer, and Liden (2001), p. 221 suggested combining the extant theories of social capital (i.e., weak tie theory [Granovetter, 1973], structural holes theory [Burt, 1992], and social resource theory [Lin, Ensel, & Vaughn, 1981]) into an overarching construct that defines social capital as "both the different network structures that facilitate (or impede) access to social resources and the nature of the social resources embedded in the network". Social capital can support individuals in their efforts to achieve career success by providing access to new information, resources, and opportunities through a social network of friends, family, colleagues, and acquaintances. For instance, individuals can use their social capital to obtain information on job openings or to influence a promotion decision in their favor (*Metz, 2009). Higgins and Kram (2001) adopted social capital theory in reconsidering the role of the mentor, one of the many actors who constitute the individual's developmental network. However, networking differs from mentoring because it encompasses many contacts (versus one or few mentors) whose status can be lower, higher, or equal to that of the individual, whereas the mentor usually has a higher status. Companies support formal networks of employees (e.g., women's leadership networks, expatriate networks) so they can share experiences, learn from each other, and increase their familiarity with other business units across the company. Such relationships support career success because they provide resources such as status, the information required to perform one's job, information on promotion opportunities, and advice on organizational norms (*Kirchmeyer, 1998). A similar effect to that depicted in the studies on networking is also described regarding international and developmental assignments. International assignments help individuals build international social networks that may provide future employment opportunities (*Carpenter et al., 2001; *Kraimer, Shaffer, & Bolino, 2009). Developmental assignments enlarge an individual's visibility and increase the availability of career-related resources when he or she contacts new coworkers and supervisors and extends his or her reach into new social circles (*Campion et al., 1994).

3.4. Contingency factors that affect the three mechanisms

As Table 2 shows, not all of the empirical analyses supported the hypothesized relationship between OCM practices and OCS. Whereas most of the articles that tested OCM practices whose primary purpose is to provide information (i.e., assessment centers and performance appraisals) confirmed these practices' efficacy in predicting career success, a minority of the analyses that related networking to career success demonstrated a statistically significant relationship. The group of practices that leverage the developmental mechanism (i.e., training, international assignments and developmental assignments) had mixed effects (positive, negative or null) on career success. When an empirical study's findings did not support its theoretical expectations, the authors suggested contingency factors that could have affected the relationship between OCM practice and OCS. Drawing on the explanations proposed in the studies, we identified two groups of contingency factors that work as moderators in the two-step process through which OCM practices affect their direct outcomes (i.e., enhancing competencies, providing information, and creating relationships) and in turn, increase individual success.

The first group of contingency factors, *Individual and organizational contingency factors*, affects the initial part of the process and either strengthens or hinders how OCM practices create competencies, information, and relationships. These factors comprise both individual characteristics (e.g., personality traits, learning styles, nationality, career stage and experience, age, gender) and organizational characteristics (e.g., informal HR practices, organizational procedures, communication processes, supervisor/managerial support, organizational structure, international scope).

Individual characteristics can affect the efficacy of OCM practices in creating individual competencies. For instance, age plays a role, as training activities have more of an effect on career success for young employees and new entrants, while developmental assignments are more effective for older employees (*Tharenou, 2001). Individual attitudinal factors (e.g., an individual's learning style, readiness to learn and motivation) can also affect the effectiveness of OCM practices in creating useful competencies (*Metz, 2004). Gender is relevant to OCM practices that create relationships and provide information. For instance, studies that have discussed the effect of mentoring on women have demonstrated that although mentor support may be particularly valuable in overcoming stereotyping and discrimination (*Ragins & Cotton, 1999), senior managers who provide mentoring tend to be male, and the nature of their relationships with female protégés may impair the benefits of mentoring (*Kirchmeyer, 1998, 2002). The evaluation of performance and potential may also be affected by gender biases, as women are expected to interrupt their careers to take responsibility for children and aging parents, and assessments of their career potential are influenced by this expectation (*Cox & Harquail, 1991).

Organizational characteristics can affect the creation of useful competencies; for example, international assignments are offered only by organizations that have an international scope, since these companies can exploit the knowledge the individuals accumulate abroad (*Kraimer et al., 2009). Organizational procedures and policies may also affect OCM practices' ability to provide valuable information. As attribution theory suggests (Igbaria & Baroudi, 1995), performance appraisals (*Wakabayashi & Graen, 1984; Nathan, Mohrman, & Milliman, 1991) and assessment centers (Klimosky & Brickner, 1987) suffer from a subjectivity bias that is reinforced both by the relationship between the supervisor and the employee and by organizational policies. Regarding the creation of relationships, the relative power of one gender (i.e., male) over another (i.e., female) in the organization may impair networking's effect in supporting career advancement (*Kirchmeyer, 2002). Similarly, if organizations do a poor job of placing and supporting expatriates, the "out of sight, out of mind" syndrome (Tung, 1988) can result in expatriates' being overlooked for promotion opportunities.

The second group of contingency factors, *Institutional contingency factors*, affects the direct and indirect links between each of the three outcomes of OCM practices (i.e., competencies, information, relationships) and career success. Institutions are rules, norms, and collective meanings (Scott, 2014) that operate at both the organizational and the societal level. Internal labor market rules determine, for instance, whether the organization rewards a certain level of competence with career advancement (*Meler, 2010). Similarly, the competencies acquired during an international assignment will not lead to career advancement if the company does not have career-planning rules to ensure that these assignments fit into the employee's professional development (Pattie, White, & Tansky, 2010). Concerning the effect of information on success, studies of female managers have demonstrated that career promotion opportunities are more likely to be offered to men regardless of their performance ratings because of organizational norms holding lower-status individuals (i.e., women) to stricter standards than those to which higher-status individuals (i.e., men) are held (*Lyness & Heilman, 2006). Similarly, national level factors such as "seniority rules" in collective contracts, labor laws, the level of unemployment, and the country's rate of growth can affect compensation and promotions regardless of individuals' performance (*Sheridan, Slocum, & Buda, 1997; *Wayne, Liden, Kraimer, & Graf, 1999). Concerning the effect of relationships on individual career success, since organizational rules can define who the mentors are, and the mentors' hierarchical positions are key to whether the mentors can affect their protégés' career success (*Kirchmeyer, 1998), the efficacy of mentoring relationships is affected by company policies. As far as networking is concerned, since personalized relationships with coworkers are parts of collectivist societies, such relationships are often not differential factors in these cultural contexts (*Bozionelos & Wang, 2006; *Koyuncu, Burke, Alayoglu, & Wolpin, 2014).

4. Framework development and propositions

Our systematic review identified three mechanisms - developmental, informational, and relational - through which OCM practices increase the individual's competencies, provide the organization with information for promotion decisions, give individuals feedback they can use for development, and create relationships that enhance the individual's visibility and promotion chances. Each of the

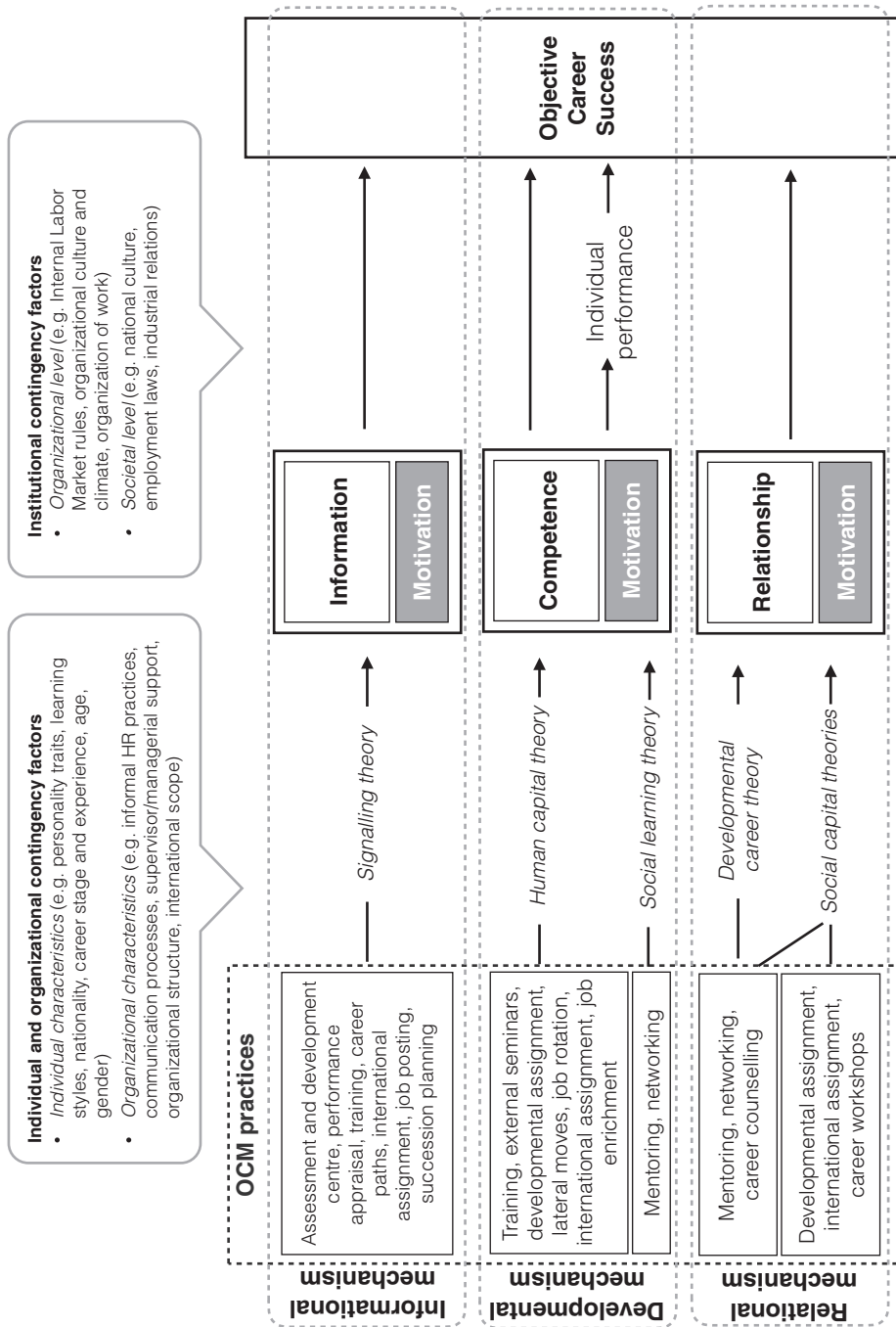


Fig. 1. The OCM-OCS framework.

papers we reviewed presented a partial view of the process that leads to career success. By recombining, integrating, and interpreting these fragments of information, we develop our *OCM-OCS framework* (Fig. 1), which offers a comprehensive view of the mechanisms that lead to career success and the theories that explain them. We complement this comprehensive view with propositions to guide future research in testing the mechanisms and how they function.

Our framework shows how OCM practices can affect one or more intermediate outcomes (competence, information, relationship) through various mechanisms and a variety of explanatory theories. For instance, training primarily enhances competencies (*developmental mechanism*), but it also provides the organization with information about the individual (*informational mechanism*). Developmental and international assignments increase competencies (*developmental mechanism*) and enlarge workers' relationships (*relational mechanism*). Mentoring and networking create relationships (*relational mechanism*) but also develop the competencies required for promotion (*developmental mechanism*). These elements suggest our first proposition:

Proposition 1. Competencies, information, and relationships mediate the relationship between OCM practices and objective career success. Each OCM practice can affect objective career success through more than one mediator.

The empirical papers in our review tested only a limited number of the OCM practices proposed in the literature, but the same types of mechanisms and effects can be described for most of the practices listed in Table 1. For instance, OCM practices that rely on the developmental mechanism include external seminars or workshops and job enrichment. For the informational mechanism, practices such as development centers and 360-degree appraisals offer organizations the information they need to make developmental decisions about their employees. Other practices, such as job posting, information on career ladders and paths, career counselling, and career planning workshops give employees the information they need to plan their professional development. Some of the same practices (e.g., career workshops, counselling) can also provide useful relationships for career advancement. Therefore, we propose a second set of propositions regarding the mechanisms activated by the OCM practices.

Proposition 2. a) OCM practices that offer opportunities to improve human capital and/or to observe more experienced individuals enhance career success by increasing individual competencies. b) OCM practices that 1) allow the company to collect signals about the performance and individuals' potential and 2) allow individuals to collect advice about the company's career policies and about their own potential and performance enhance career success by providing information. c) OCM practices that offer opportunities to interact with more experienced individuals and with peers increase career success by creating relationships.

Our framework shows that an OCM practice can activate various mechanisms in influencing OCS and that since many practices can activate the same mechanism, these practices are likely to interact when they are implemented. This result is in line with the rich theoretical and empirical strategic human resource management (SHRM) literature, which demonstrated decades ago that human resource management (HRM) practices do not work in isolation but only as sets of self-reinforcing activities or bundles (Delery & Doty, 1996; MacDuffie, 1995). Building on this literature, we expect a similar effect for groups of OCM practices. In addition, since the goal of all OCM practices is to enhance career success through a variety of mechanisms, we expect that individuals who experience more OCM practices reach a higher level of success than do those who experience fewer OCM activities. Therefore, we propose a set of propositions concerning how OCM practices work as a system.

Proposition 3. a) The more OCM practices an individual experiences, the greater his or her career success. b) OCM practices that activate more than one mechanism (developmental, informational, or relational) are more effective in increasing the individual's career success than are OCM practices that activate only one mechanism. c) OCM practices that leverage the same mechanism (developmental, informational, or relational) reinforce each other in enhancing the individual's career success.

As our OCM-OCS framework shows, in some cases, the relationships between performance and the three outcomes of OCM practices are not only direct ones. In the case of the developmental mechanism, enhanced competencies can directly increase salary when the organization has a skill based-pay system in place (Armstrong & Stephens, 2005), but more often they improve job performance, which gives companies the information they need for promotion decisions and salary increases (particularly incentives). Similarly, as suggested in illustrating the informational mechanisms, many OCM practices can be sources of motivation, an element neglected in Rosenbaum's (1984) model and discussed in only one of the papers we reviewed (Oh & Lewis, 2013). Several theories provide the theoretical rationale for what sustains OCM practices' motivational effect on workers. Equity theory (Adams, 1965), expectancy theory (Vroom, 1964), and the job characteristics model (Hackman & Oldham, 1976) argue that employees' motivation increases when the appraisal system recognizes their performance. Motivation is a strong driver of increased employee effort (and their performance in turn). More recently, the ability-motivation-opportunity (AMO) framework developed in the SHRM literature (Boxall & Purcell, 2016; Jiang, Lepak, Hu, & Baer, 2012) demonstrates that career development practices affect motivation, while motivation and enhanced competencies (affected by training) impact individual performance (Boxall & Purcell, 2016). Even though only one of the papers we reviewed mentioned this motivational effect, we draw on the extensive theoretical and empirical literature on the topic to argue that motivation plays an important role in the process we analyze. Therefore, we added motivation to our OCM-OCS framework as a direct effect of OCM practices.

Proposition 4. a) Motivation interacts with OCM practices' outcomes (i.e., competencies, information, and relationships) in affecting career success. b) Individual performance mediates the relationship between OCM practices' outcomes (i.e., competencies, information, and relationships) and career success.

Finally, as described in the section about contingency factors, the processes that relate OCM practices to OCS are affected by many individual, organizational, and institutional characteristics. Only a few empirical studies (e.g., Ferris, Buckley, & Allen, 1992; Stumpf

& London, 1981) have tried to identify the factors affecting the performance of a promotion system. Our OCM-OCS framework not only identifies groups of contingency factors but also suggests how they are likely to affect the steps of the process.

Proposition 5. *a) Individual and organizational contingency factors moderate the relationship between OCM practices and their proximal outcomes (i.e., competencies, information, relationships). b) Institutional factors at the organizational and societal levels affect the relationship between objective career success and the accumulation of competencies, information, and relationships.*

5. Discussion and conclusion

Despite the steady managerial and academic interest in OCM, this field of study remains theoretically underdeveloped and empirically fragmented. Our systematic review of the research on the relationship between OCM practices and OCS addresses these issues by proposing a theoretical framework.

Building on the results of the review, the OCM-OCS framework offers a comprehensive view of the theoretical reasons (*why*) and mechanisms (*how*) through which OCM practices affect career success, and it illustrates the circumstances (*what*) under which these relationships work. In addition, we formulated a set of propositions that provide useful guidelines for testing the framework and how it functions.

As a first theoretical contribution, this framework advances and extends the embryonic career process that Rosenbaum (1984) proposed by illustrating the developmental, informational, and relational mechanisms through which OCM practices affect career success. Confirming the interdisciplinarity of career studies (e.g., Gunz & Peiperl, 2007), the OCM-OCS framework highlights which theories underpin the three mechanisms, showing that in some cases, more than one theory can explain why OCM practices favor the accumulation of competencies, the provision of information, or the creation of relationships. By grouping practices according to the main mechanisms to which they refer and considering the practices that have been tested empirically on OCS (Briner et al., 2009), we add to the studies in the career literature that have proposed a variety of classifications for OCM practices without grounding them theoretically (e.g., Baruch & Peiperl, 2000; De Vos et al., 2008; Eby et al., 2005). With respect to the studies on career systems (Gunz, 1989; Lepak & Snell, 1999; Sonnenfeld & Peiperl, 1988) that have suggested using any one OCM practice only in certain circumstances or with certain employees, we contribute to clarifying *why* and *how* these practices can result in individuals' success.

As a second theoretical contribution, our framework includes two sets of contingency factors that are likely to affect the process related to OCM and OCS. Thus, we add to the theoretical (e.g., Mayrhofer, Meyer, & Steyrer, 2007) and empirical career literature (e.g., Ferris et al., 1992) that has suggested the relevance of contextual factors to career development but has not defined which are relevant to the relationship between OCM practices and individual OCS.

The empirical studies we reviewed provide tests for only eight practices out of more than thirty listed in the literature. These few tests suggest a detachment between the theoretical and the empirical literature on OCM since many practices are described but not tested for their effect on career success, which should be the primary hypothesized outcome. In addition, our analysis demonstrates that the lists of OCM practices that the literature has proposed are not complete and current. For example, organizational work-life balance policies (e.g., flexible work hours, working from home) should be included; such policies support workers' efforts to maintain effective performance in the face of competing family demands (Beauregard & Henry, 2009), so they could support individual career success. We found four articles - Glass (2004), Hall, Lee, Kossek, and Las Heras (2012), Konrad and Yang (2012), and Noback, Broersma, and Dijk (2016) - that discussed the role of work-life balance practices in supporting career development and success, but these practices may not be included among the traditional OCM practices because some may be mandatory in some national contexts (e.g., parental leave), while others help to reduce discrimination at work (e.g., equal opportunity interventions). Future research should also investigate the OCM practices that companies have developed recently in response to Millennials' career demands (Ng, Schweitzer, & Lyons, 2010), the needs of aging employees (Hall & Mirvis, 1995), and culturally diverse workers (Dheer & Lenartowicz, 2017).

The results of our systematic review and the development of our framework offer practical implications for companies and individuals. The three mechanisms identified in the framework show how OCM practices work as groups. This result cannot be defined as new because of the SHRM literature that demonstrated decades ago that HRM practices do not work in isolation but only as sets of self-reinforcing activities or bundles (Delery & Doty, 1996; MacDuffie, 1995). Similarly, in the career literature, studies on organization career systems (e.g., Bagdadli, 2007; Baruch, 2006; Sonnenfeld, 1989) have suggested the theoretical relevance of a comprehensive approach to OCM. However, fifty-nine of the seventy-three articles we reviewed measured the effects of single practices on career success, and many of them did not find the expected effects, suggesting that the empirical studies neglected the literature's indication. Drawing on our framework, we reinforce the call for an integrated approach to career management and suggest that companies should group OCM according to the mechanisms they leverage to benefit from their interaction.

Other practical implications concern the design and the implementation of OCM practices. Because OCM practices can exert their effect over differing time horizons, companies should consider the temporal perspective when they design and test systems of OCM practices. For instance, while assessment centers have long-term effects (Jansen & Vinkenburg, 2006), performance appraisals have short-term effects (Oh & Lewis, 2013), and training can have both short- and long-term effects, depending on its content and the recipients' characteristics (Fang, Zikic, & Novicevic, 2009; Sheridan et al., 1997). In addition, as several studies have suggested, companies should also consider the curvilinear relationship between OCM practices and career success. For instance, the positive effect of a career development activity can change over time, as Sheridan et al. (1997) demonstrated for on-the-job training, which has a positive influence on promotion rates for the first job that diminishes in subsequent jobs. In addition, a greater investment in an OCM practice might not always be related to a higher return in terms of career success; for instance, Kraimer et al. (2009) found that

the number of international assignments had a U-shaped relationship with career advancement upon repatriation. Together with the role of time, the rich set of contingency factors included in our framework suggests that companies should consider customizing their OCM practices according to individual and institutional characteristics. As the comparative career and HRM literature suggests (e.g., Mayrhofer, Meyer, Iellatchitch, & Schiffinger, 2004), local culture affects management practices at the national level, so multinational companies should customize their career management activities at the local level.

6. Limitations and future research

Our framework has several limitations. First, although our research focuses on organizational careers, the social and political changes that have become particularly evident since the 1990s (Baruch et al., 2015) have favored the diffusion of flexible and adaptive careers. These new career models (e.g., boundaryless, protean) are generally characterized by individuals' increased centrality in their career management by means of career self-management activities, a desire for mobility and voluntary turnover, and a focus on subjective career success (Arthur & Rousseau, 2001; Hall, 1996; Tomlinson et al., 2018). We acknowledge that our framework has low explanatory power in depicting the career development of individuals who are not interested in climbing the organizational hierarchy. Companies are unlikely to be interested in investing in such employees' development (i.e., OCM practices) since they are not sure they can retain them, and these individuals are unlikely to be interested in creating competencies, receiving information, and establishing relationships that are mostly firm-specific. However, since the organizational career has not completely disappeared (Vinkenburg & Weber, 2012), our framework should be extended to include the features of the "new organizational career" model (Clarke, 2013, p. 684) that combines the characteristics of the traditional organization career, the boundaryless career, and the protean career. As the organization and the individual jointly manage the new organizational career, our framework might include career self-management practices such as self-promotion, networking, consultation with mentors, and extended job involvement (Gould & Penley, 1984) to verify the validity of the three theoretical mechanisms we identified.

Second, we followed rigorous coding procedures for our literature review, but we acknowledge the limitations inherent in setting the key words and their combinations. Our intention was to adopt a comprehensive approach to gathering the empirical studies that measure the effects of OCM practices, but we may have excluded articles on new and/or emerging OCM practices, the key words for which were not included in the list we compiled, along with articles published in journals that do not have a management focus (e.g., medical journals). Extending the research to new OCM practices and/or testing the OCM-OCS framework in certain professional groups (e.g., teachers, nurses) is a potentially fruitful path forward.

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