



Talent identification and development tools

Two to tango?

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Abstract

Purpose – This paper aims to contribute to talent management literature by examining empirically the relationship between talent identification and development tools.

Design/methodology/approach – The study sample consisted of 112 Argentina-based companies. All participants completed an online survey containing a list of identification and development practices. Responses were analyzed with SPSS 19.

Findings – Results show that companies running more talent identification processes (performance management and potential identification) make use of a greater number of development tools. Significant differences were observed in the use of all development tools analyzed, with the exception of formal education and job rotation. Results indicate that the presence of a Development Department encourages the implementation of identification and development tools.

Practical implications – The study suggests that the better the quality of the information involved during the identification stage, the higher the contribution to development investment decisions. Companies should do well to rely on higher-quality diagnostic information to facilitate a better selection of development tools to fulfill specific objectives. The existence of a Development Department favors the implementation of a greater number of identification and development tools.

Originality/value – This paper adds to fill a perceived gap in the literature investigating, empirically, the relationship between talent identification processes and development tools.

Keywords Performance management, Potential identification, Development tools

Paper type Research paper

Resumen

Objetivo – El estudio tiene por objetivo contribuir a la literatura de gestión del talento explorando empíricamente la relación entre las herramientas de identificación del talento y las herramientas de desarrollo.

Metodología – La muestra del estudio está compuesta de 112 empresas localizadas en Argentina. Los participantes completaron una encuesta on-line sobre las herramientas de identificación y de desarrollo utilizadas en sus empresas. Las respuestas fueron analizadas con SPSS version 19.

Resultados – Los resultados muestran que las compañías que implementan más procesos de identificación del talento (gestión del desempeño e identificación del talento) utilizan un número mayor de herramientas de desarrollo. Se observaron diferencias significativas en todas las herramientas de desarrollo analizadas, a excepción de programas de educación formal y rotaciones. Asimismo, los resultados demuestran que la presencia de un departamento de desarrollo favorece la implementación de herramientas de identificación y de desarrollo.



Implicaciones prácticas – El estudio sugiere que una información de mejor calidad obtenida en la etapa de identificación del talento, genera una contribución mayor en el proceso de toma de decisiones en materia de desarrollo. Las compañías deberían apoyarse en información diagnóstica de mayor calidad para posibilitar una mejor selección de las diferentes herramientas de desarrollo que permita dar respuesta a objetivos específicos. La existencia de un Departamento de Desarrollo favorece la implementación de un mayor número de herramientas de identificación y de desarrollo.

Originalidad – El estudio contribuye a cubrir un vacío identificado en la literatura investigando empíricamente la relación entre procesos de identificación del talento y herramientas de desarrollo.

Palabras clave gestión del desempeño, identificación del potencial, herramientas de desarrollo

Clasificación del artículo trabajo de investigación

Resumo

Objetivo – O artigo tem como objetivo, contribuir para a literatura de gerenciamento de talento através da análise empírica do relacionamento entre as ferramentas de identificação de talentos e as ferramentas de desenvolvimento.

Abordagem metodológica – A amostragem do estudo foi baseada em 112 companhias sediadas na Argentina. Todos os participantes responderam a pesquisa online contendo uma lista de práticas de identificação e práticas de desenvolvimento. As repostas foram analisadas utilizando o SPSS19.

Resultados – Os resultados mostram que as empresas que executam mais processos de identificação de talentos (gestão do desempenho e identificação de potencial) usam um grande número de ferramentas de desenvolvimento. Foram observadas diferenças significativas no uso de todas as ferramentas de desenvolvimentos que foram analisadas, com exceção da educação formal e troca de funções. Os resultados indicam que a presença de um Depto. de Desenvolvimento favorece a implementação de ferramentas de identificação e desenvolvimento.

Implicações práticas – O estudo sugere que quanto maior a qualidade da informação envolvida durante a fase de identificação, maior a contribuição nas decisões de investimento em desenvolvimento dos funcionários. As empresas devem confiar em informações de diagnóstico de maior qualidade para facilitar uma melhor seleção de ferramentas de desenvolvimento para cumprir objetivos específicos. O desenho organizacional da área de RH (Desenvolvimento) favorece a implementação de uma quantidade maior de ferramentas tanto de identificação quanto de desenvolvimento.

Originalidade/valor – Este artigo contribui para preencher uma lacuna percebida na literatura investigando, de forma empírica, a relação entre os processos de identificação de talentos e ferramentas de desenvolvimento.

Palavras-chaves gestão do desempenho, identificação de potencial, ferramentas de desenvolvimento

Classificação do artigo trabalho de pesquisa

Introduction

In a competitive environment, talent management is a primary driver for organizational success. Attracting, developing and retaining key talent is a challenge faced nowadays by all companies (Coy and Ewing, 2007). However, there is considerable debate among researchers with respect to their understanding of the meaning of talent management (Farndale *et al.*, 2010; Vaiman *et al.*, 2012). Furthermore, there is neither consensus regarding the activities that should be included under the umbrella of the term (Lewis and Heckman, 2006; Tarique and Schuler, 2010) nor about its scope and main objectives. In the present study, we adopt the talent management definition proposed by Collings and Mellahi (2009, p. 304):

[...] activities and processes that involve the systematic identification of key positions which differentially contribute to the organization's sustainable competitive advantage, the development of a talent pool of high potential and high performing incumbents to fill these roles, and the development of a differentiated human resource (HR) architecture to facilitate filling these positions with competent incumbents and to ensure their continued commitment to the organization.

Scholars and researchers describe a variety of approaches to talent management, suggesting several steps or phases for its implementation (Ashton and Morton, 2005; Smilansky, 2006; Stahl *et al.*, 2007; Silzer and Dowell, 2010; Berger and Berger, 2011; Cannon and McGee, 2011). Having reviewed them, we consider that there seems to be no clear sequence of steps to its execution. Nor the manner in which these steps relate to each other is addressed by the literature. Previous studies of talent management practices have not explicitly investigated whether the presence of talent identification processes encourages the use of talent development tools. To fill this gap, this study examines the aforementioned relationships in 112 companies.

This paper aims to answer the following questions:

- Do talent identification processes influence the use of talent development tools?
- How does the use of development tools differ among companies with different talent identification processes in place?

Theoretical framework

This study relies on an integrated approach consisting of different talent management elements, proposed by Groves (2007), Collings and Scullion (2007), Iles (2007) and Hartmann *et al.* (2010). According to it, talent management involves the identification, development, appraisal, deployment and retention of high-performing and high-potential employees.

McDonnell and Collings (2011) identify three key aspects of talent management. First, ensuring that corporate and talent strategies are intrinsically linked. Second, talent needs to be identified. Third, talent needs to be effectively managed. We will concentrate, in this paper, on two key aspects of talent management: identification/appraisal and development/deployment processes.

Talent identification process

The foundation for an integrated talent management system is the identification process. This stage includes several practices: one of them is performance management. This strategic process is composed of goal setting, performance evaluation and development within a coherent unified framework aiming to align individual and group objectives with organizational ones (DeNisi, 2000; Hartog *et al.*, 2004).

Although performance appraisals are likely to be incorporated in most talent management systems, they only provide information on past performance (top performers). In fact, they do not identify the employee's potential to take on more important strategic roles (high potentials) (Silzer and Davis, 2010; McDonnell and Collings, 2011). Performance management constitutes a first step toward talent identification; however, a comprehensive talent identification process requires as well, potential identification. This is a systematic process of determining whether individuals have what it takes to advance to positions of greater management responsibility or

positions demanding greater technical knowledge sometime in the future (Cecil and Rothwell, 2007).

An effective assessment provides the insight needed to design development assignments that will challenge leaders' capabilities and appropriately stretch them into new leadership territory without putting the organization's investment at risk (Paese, 2010). Without valid information on performance and potential, the development programs may not fulfill the intended objectives.

Talent development processes

According to McCauley *et al.* (2010), development methods can be organized into five broad categories: developmental relationships, developmental assignments, feedback processes, formal programs and self-development activities. For the purpose of this study, we will focus on.

Developmental relationships. Relationships can be particularly powerful drivers of learning and development because they are a rich source of assessment, challenge and support (McCauley and Douglas, 2004). We will concentrate, in this study, on "one to one" developmental relationships: mentoring and coaching.

Developmental assignments. Job rotations, project assignments and international/national transfers offer leaders the opportunity to learn by doing – by working on real problems and dilemmas. In fact, research has consistently shown that challenging assignments result in on-the-job learning (McCauley *et al.*, 1994; DeRue and Wellman, 2009; Dragoni *et al.*, 2009), and that managers consider these job experiences as *the* primary source of learning (Morrison *et al.*, 1987; McCall *et al.*, 1988).

Formal programs. This development method includes attendance to corporate programs, executive education and formal education. Analyzing its objectives, Rothwell and Kazanas (2003) offer a distinction between *employee education* which focuses on changing individuals to help them prepare for career advancement *vertically* (up the chain of command) or *horizontally* (across a continuum of professional competence) and *employee training* which is a short-term, individually focused change effort that is intended to improve job performance.

Considering the absence of empirical studies on the interweaving of the talent management phases and according to the concepts previously offered, we suggest the following propositions:

- H1. Companies making use of performance management and potential identification processes (talent identification processes) (PMP companies) will use a greater number of development tools than companies making use of only the performance management process (OPM companies) and companies without performance management and potential identification (NONE companies).
- H2. Companies with different talent identification processes in place (PMP vs OPM and NONE companies) will show different percentages in the use of development tools.

Based on McCauley *et al.*'s (2010) classification of development tools, the following hypotheses were developed:

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- H2.1.* Companies with different talent identification processes in place (PMP vs OPM and NONE companies) will show different percentages in the use of *one to one developmental relationships* (mentoring and coaching).
- H2.2.* Companies with different talent identification processes in place (PMP vs OPM and NONE companies) will show different percentages in the use of *developmental assignments* (project assignments, job moves, international or national assignments and job rotations).
- H2.3.* Companies with different talent identification processes in place (PMP vs OPM and NONE companies) will show different percentages in the use of *formal programs* (executive education, corporate programs and formal education).

To implement these different talent management processes, senior management support is required, as well as expertise on development subjects from HR professionals. In the first case, it was shown that organizations that report greater levels of top leader engagement in talent management efforts also indicate more effective outcomes than organizations with lower levels of senior leader involvement (Lamoureux *et al.*, 2009).

In the second case, according to Farndale *et al.* (2010), HR function will need to fulfill four key roles to effectively run the talent management initiatives. These roles are *guardians of culture*, overseeing the implementation of values and systems when it comes to developing a talent management culture and employer brand across the organization, Ulrich and Smallwood (2007); *champions of processes*, striving for better horizontal coordination of tools, techniques and processes for talent management across internal functions; *network leadership and intelligence*, awareness of leading edge trends and developments in the internal and external labor market, the ability to mobilize the appropriate HR and a sense of timing and context, sensitivity to what is going on at both local and global levels, Evans *et al.* (2002); and *managers of internal receptivity*, role in the career management of international employees, encouraging mobility but also ensuring individuals are looked after in the process.

Following the approach proposed by Farndale *et al.* (2010), we assume that the presence of a Development Department will favor the launching and continuous monitoring of development processes. Therefore, the following hypothesis is suggested:

- H3.* The presence of a Development Department encourages the implementation of identification and development tools.

Methodology

Research design

To test our hypothesis, a survey – distributed via email – was carried out between November 2010 and March 2011. In all, 1,600 companies, members of the Argentine Association of Human Resource Management (ADRHA), were invited to participate.

A standardized questionnaire was designed to be completed using tick boxes. It was organized as follows:

The first part collected company data: name, subsidiary or home office, age, number of employees and industry sector (six items).

The second part included questions to explore governance on the development function (two items). We asked companies if they had in place a development function and if the answer was negative, who was accountable for the development processes (HR area, Training and Development Department, line managers or others).

Finally, participants were given a list of identification and development practices to choose from and asked to include any omitted one:

- performance management (four items); and
- potential identification (six items).

Development practices were generated according to the literature and were grouped following [McCauley et al. \(2010\)](#) classification:

- developmental relationships (mentoring and coaching) (two items);
- developmental assignments (job rotations, job moves and special assignments) (three items); and
- formal programs (formal education, executive education and corporate programs) (three items) ([Table I](#)).

The questionnaire was pre-tested on a sub-sample of 20 HR practitioners and three HR professors. As a result, no significant additions or changes to the list of practices were needed and the spread of responses on all items was satisfactory. Responses were analyzed with SPSS version 19.

Sample and procedure

The organization was the unit of analysis. From a total of 155 respondents (response rate of 9.7 per cent), 43 were discarded, as they provided incomplete data or did not comply with basic requirements. The final sample, hence, was composed of 112 companies. Main characteristics of participating organizations are shown in [Table II](#).

Assessment

Performance appraisal – [Baruch and Peiperl \(2000\)](#), [Armstrong \(2006\)](#)

Potential identification – [Baruch and Peiperl \(2000\)](#), [Russell \(1991\)](#)

Developmental relationships

Formal mentoring – [Baruch and Peiperl \(2000\)](#), [Gutteridge \(1986\)](#), [McCauley et al. \(1998\)](#), [Groves \(2007\)](#), [Caplan \(2011\)](#)

Coaching programs – [Gutteridge \(1986\)](#), [McCauley et al. \(1998\)](#), [Groves \(2007\)](#), [Caplan \(2011\)](#)

Developmental assignments

Stretch assignments/project assignments – [Bersin \(2010\)](#), [McCauley et al. \(1998\)](#), [Groves \(2007\)](#)

Job moves – International assignments or national transfers – [Gutteridge \(1986\)](#), [McCauley et al. \(1998\)](#)

Job rotations – [Gutteridge \(1986\)](#), [Caplan \(2011\)](#)

Formal programs

Executive education – [Bersin \(2010\)](#)

Attendance to corporate programs – [Gutteridge \(1986\)](#)

Formal education – [Baruch and Peiperl \(2000\)](#), [Caplan \(2011\)](#)

Table I.

Assessment and development tools included in the survey

Results

From the 112 participants, 41 companies confirmed they only had performance management process in place (OPM – Only Performance Management), while 43 of them had both identification processes (PMP – Performance Management and Potential). Finally, 28 companies had NONE of these processes in place (NONE).

Hypotheses testing

Hypothesis 1. According to unadjusted analysis of variance (ANOVA), PMP group showed the highest presence of development tools (mean = 5.79), while OPM and NONE groups exhibited significantly lower scores (mean = 4.22 and 2.32, respectively). An overall statistically significant difference emerged, $F = 24.401, p < 0.0001$. Intergroup analysis showed that the number of development tools was significantly higher among PMP versus OPM companies ($p = 0.0007$), versus NONE group ($p < 0.0001$) and OPM companies versus the latter ($p = 0.0003$).

Thus, our first hypothesis was fully supported.

Control variables.

Hypothesis 1 according to company size. Having stratified the sample according to company size (≤ 500 , 501-2,000 and $\geq 2,001$ employees), differences were statistically significant.

In companies with ≤ 500 employees, PMP group showed the greatest number of development tools (mean = 5.15), while OPM and NONE groups exhibited significantly lower amounts (mean = 3.85 and 2.00, respectively). An overall statistically significant difference emerged, $F = 10.255, p < 0.000$.

Considering companies with 501-2,000 employees, the PMP group once again showed the greatest number of development tools (mean = 6.33), while OPM and NONE groups exhibited significantly lower amounts (mean = 5.40 and 2.86, respectively), $F = 9.727, p = 0.001$.

Finally, in the same vein, results for companies with $\geq 2,001$ employees indicated that PMP group showed the greatest number of development tools (mean = 6.36), while OPM and NONE groups exhibited significantly lower amounts (mean = 3.75 and 3.00, respectively). An overall statistically significant difference emerged, $F = 4.125, p = 0.039$.

Hypothesis 1 according to capital origin. An ANOVA was performed to assess whether capital origin had an impact on the relationship between talent identification processes (OPM, PMP and NONE) and the use of development tools. Findings showed that our first hypothesis remains true. Considering Latin American companies, PMP

Size (number of employees)	Up to 500 58.6 (per cent)	501-2,000 26.1 (per cent)	> 2001 15.3 (per cent)		
Primary function	Manufacturing 38.1	Services 34.8	Transport and communications 7.1	Health care 5.4	Others 14.6
Capital origin	Latin America and Mexican 61.6	European 18.7	North American (USA and Canada) 19.7		

Table II.
Organizational characteristics of the sample

group showed the greatest number of development tools (mean = 5.18), while OPM and NONE groups exhibited significantly lower amounts (mean = 3.86 and 2.42, respectively), $F = 8.985, p < 0.0001$. Among American and European companies, the PMP group also showed the greatest number of development tools (mean = 6.19), while OPM and NONE groups exhibited significantly lower amounts (mean = 5.00 and 1.75, respectively). An overall statistically significant difference emerged, $F = 9.507, p < 0.0001$ Table III.

Hypothesis 2. We analyzed the percentage of use of all development tools in PMP, OPM and NONE companies and, consistent with our expectations, it increased in PMP companies in comparison with the other groups. Significant differences in the use of all development tools were observed, with the exception of formal education and job rotation (Table IV).

Considering developmental relationships, NONE companies used no mentoring programs. If we compare PMP against OPM companies, the former showed five times more mentoring programs than the latter ones. Furthermore, PMP companies more than doubled the use of coaching programs in comparison with OPM firms.

If we analyze developmental assignments, specifically, project assignments, even if statistically significant differences could be observed, these are minor considering PMP and OPM firms. On the other hand, these differences were more significant in the case of job moves, where OPM doubled its presence against NONE companies and PMP duplicated in percentage its use against OPM firms.

Talent identification	N	Mean	SD	SE	Number of development tools 95 per cent CI		F	p
					Lower limit	Upper limit		
OPM	41	4.22	2.080	0.325	3.56	4.88	24.401	< 0.0001
PMP	43	5.79	2.231	0.340	5.10	6.48		
None	28	2.32	1.679	0.317	1.67	2.97		
Total	112	4.35	2.445	0.231	3.89	4.81		

Table III.
Hypothesis 1 – number of development tools

Notes: OPM = Only Performance Management; PMP = Performance Management and Potential Identification; None = Absence of any process

Development tools	Talent identification processes			χ^2	p
	None (%)	OPM (%)	PMP (%)		
Mentoring programs	0	4.9	27.9	15.510	< 0.0001
Coaching programs	7.1	26.8	55.8	19.285	< 0.0001
Stretch assignments/projects assignment	39.3	65.9	67.4	6.572	0.037
Job moves (international assignments or national transfers)	14.3	29.3	58.1	15.554	< 0.0001
Job rotations	25	36.6	44.2	2.690	0.261
Formal education	53.6	61	76.7	4.515	0.105
Executive education	35.7	61	74.4	10.605	0.005
Corporate programs	10.7	58.5	67.4	23.713	< 0.0001

Table IV.
Development tools according to talent identification processes in place

Analyzing job rotation, the same ascending curve was observed. Even if the difference among the three groups was not statistically significant, a nonsignificant trend could be noticed.

Finally, formal training program was the most popular development tool among all groups, but there were no significant statistical differences in its use.

Thus, hypothesis 2 was supported by these results.

Hypothesis 2.1: Talent identification processes and developmental relationships. To evaluate this hypothesis we performed two separate chi-square tests (one for mentoring and another for coaching), as several companies run both or just one of them.

(1) Talent identification processes and mentoring programs:

Out of all companies with mentoring programs (14), 12 (85.7 per cent) had performance management and potential identification processes in place (PMP group, $\chi^2 = 15.510$, $df = 2$, $p < 0.001$). Furthermore, PMP showed a significantly higher probability of having mentoring programs (OR = 12.968 [95 per cent CI: 2.506-89.706], $p < 0.001$) than OPM or NONE groups. Similar findings were shown when PMP was analyzed versus OPM group (OR = 7.548 [95 per cent CI: 1.427-52.995], $p = 0.005$), or PMP versus NONE group (OR = > 99) [95% CI 1.890 – > 99], $P = 0.005$) (Table V).

(2) Talent identification processes and coaching programs:

In a similar vein, according to chi-square analysis, PMP group showed a significantly higher utilization of coaching programs (64.9 per cent of all companies with coaching programs) than OPM and NONE groups (29.7 per cent and 5.4 per cent, respectively). Chi-square test for coaching was significant ($\chi^2 = 15.51$, $df = 2$, $p = < 0.001$), supporting differences by talent identification processes. In addition, PMP group showed a significantly higher probability of having a coaching program (OR = 5.441 [95 per cent CI: 2.144-14.035], $p < 0.001$) in comparison with OPM and NONE groups. These findings were similar when PMP was analyzed versus OPM group (OR = 3.445 [95 per cent CI: 1.257-9.603], $p = 0.007$) or PMP versus NONE group (OR = 16.421 [95 per cent CI: 3.137-114.564], $p = 0.0002$) (Table VI). Consistent with

Talent identification	Development tools	
	No mentoring program ($n = 98$)	With mentoring program ($n = 14$)
None	28	0
OPM	39	2
PMP	31	12
Global chi-square: $\chi^2 = 15.510$ ($df = 2$), $p < 0.0001$		

Table V.
Talent identification
processes and mentoring
programs

Variables of talent identification	Development tools	
	No coaching program ($n = 75$)	With coaching program ($n = 37$)
OPM	30	11
PMP	19	24
None	26	2
Global chi-square: $\chi^2 = 19.285$ ($df = 2$), $p \leq 0.0001$		

Table VI.
Talent identification
processes and coaching
programs

our hypothesis, PMP companies make more use of mentoring and coaching programs than other groups.

Thus, these data supports this hypothesis.

Hypothesis 2.2: Talent identification processes and developmental assignments. Three chi-square tests were conducted to explore whether the presence of several talent identification processes influences the adoption of job rotations, job moves or special assignments as development tools. Contrary to our expectations, relations between OPM, PMP, NONE companies and job rotations were found to be statistically not significant ($\chi^2 = 2.690$, $df = 2$, $p = 0.261$). There was no association between its use and the presence of different talent identification processes.

It is worth noting that, on the contrary, the chi-square analysis relating these variables with job moves (international assignments or national transfers) revealed they were associated ($\chi^2 = 15.554$, $df = 2$, $p \leq 0.001$). Most companies using job moves were part of the PMP group (61.0 per cent). PMP and OPM groups exhibited higher prevalence of job moves than NONE group (58.1, 29.3 and 14.3, respectively, Table VII).

In a similar vein, PMP and OPM groups exhibited higher prevalence of project assignments than NONE group (67.4, 65.9 and 39.3, respectively, $\chi^2 = 6.572$, $df = 2$, $p = 0.037$, Table VIII).

Overall, results provide partial support for hypothesis 2.2.

Hypothesis 2.3: Talent identification processes and formal programs. Results showed no statistically significant relations between OPM, PMP, NONE and formal education ($\chi^2 = 4.515$, $df = 2$, $p = 0.105$). Companies with different talent identification processes in place showed a similar percentage of formal training: NONE (53.6 per cent), OPM (61 per cent) and PMP (76.7 per cent).

PMP and OPM groups exhibited higher prevalence of executive education than NONE group (74.4, 61.0 and 35.7, respectively, $\chi^2 = 10.605$, $df = 2$, $p = 0.005$, Table IX).

Finally, PMP and OPM groups exhibited higher levels of corporate programs than NONE group (67.4, 58.5 and 10.7, respectively, $\chi^2 = 23.713$, $df = 2$, $p < 0.0001$, Table X).

Hypothesis 3. A chi-square and an ANOVA test were performed to test whether the presence of a development structure favors the implementation of talent identification

Table VII.

Talent identification processes and job moves (international assignments or national transfers)

Variables of talent identification	Development tools	
	No job moves ($n = 71$)	Job moves ($n = 41$)
OPM	29	12
PMP	18	25
None	24	4
Global chi-square: $\chi^2 = 15.554$ ($df = 2$), $p \leq 0.001$		

Table VIII.

Talent identification processes and project assignments

Variables of talent identification	Development tools	
	No projects assignments ($n = 45$)	Projects assignments ($n = 67$)
OPM	14	27
PMP	14	29
None	17	11
Global chi-square: $\chi^2 = 6.572$ ($df = 2$), $p = 0.037$		

and development tools. As we initially assumed, results suggest support for this hypothesis. Results showed that companies with a Development Department use more talent identification tools ($\chi^2 = 15.582$, $df = 2$, $p < 0.0001$ (Table XI) as well as more talent development tools ($F = 13.075$, $p < 0.0001$) (Table XII) than the other companies.

Discussion

We proposed that running performance management and potential identification processes favors the presence of development practices. Results showed that NONE companies use a mean of 2.32 practices, while this number grows at the same pace of adoption of additional identification practices (OPM 4.22 and PMP 5.79). These findings clearly demonstrate that the greater the number of identification tools in place, the

Talent identification	Development tools	
	No executive education ($n = 45$)	Executive education ($n = 67$)
None	18	10
OPM	16	25
PMP	11	32
Global chi-square: $\chi^2 = 10.605$ ($df = 2$), $p = 0.005$		

Table IX.
Talent identification processes and executive education

Talent identification	Development tools	
	No corporate programs ($n = 56$)	Corporate programs ($n = 56$)
None	25	3
OPM	17	24
PMP	14	29
Global chi-square: $\chi^2 = 23.713$ ($df = 2$), $p \leq 0.0001$		

Table X.
Talent identification processes and corporate programs

Variables of talent identification	Development tools	
	Department ($n = 51$)	No department ($n = 61$)
OPM	29	14
PMP	16	25
None	6	22
Global chi-square: $\chi^2 = 15.582$ ($df = 2$), $p \leq 0.0001$		

Table XI.
Development department and talent identification processes

Development department	N	Mean	SD	SE	Number of development tools		F	p
					95 per cent CI Lower limit	95 per cent CI Upper limit		
Department	51	5.22	2.138	0.299	4.61	5.82	13.072	< 0.0001
No department	61	3.62	2.464	0.316	2.99	4.25		
Total	112	4.35	2.445	0.231	3.89	4.81		

Table XII.
Development department and number of development tools

greater the presence of talent development tools. Differences were still statistically significant when size and capital origin were considered.

Comparing companies regarding to capital origin, we observed that PMP companies take precedence over other groups in American and European companies, while OPM companies are the predominant ones among the Latin American group.

A more sophisticated HR infrastructure (systems and methods) in the identification phase drives the presence of more varied and sophisticated tools in the development phase. Best practice organizations tend to focus on highly customized development (i.e. tailoring development activities to a leader's strengths, developmental needs and career potential) (McCauley, 2008). The information provided by the performance management and potential identification processes is basic to future planning and actions (Cannon and McGee, 2011). This information, originated from a sophisticated human capital information system, as suggested by Lawler (2008), offers valuable input to craft the development initiatives and feeds the succession management process (Conger and Fulmer, 2003). If we consider the talent management decision-making process as another business process, it is eagerly desirable that the information considered should come from different processes and sources. The higher the quality of the information involved, the bigger the contribution to development investment decisions.

As predicted, findings show that the use of almost all development tools is associated with the presence of talent identification processes. Chi-square tests show that PMP companies make more use of developmental relationships, developmental assignments and formal programs than NONE and OPM companies.

In the first case, the most considerable differences in the use of development tools among groups (PMP, OPM and NONE) can be observed. One of the greatest differences is shown in mentoring programs. PMP companies show five times more mentoring programs than OPM firms. Data suggest that its use is higher in PMP companies due to the fact that mentoring programs address a whole range of organizational needs such as identifying and developing high-potential employees and supporting succession planning (Carter, 1994). The programs established for the development of high flyers involve a limited mentee target group – those identified as possessing potential.

Concerning developmental assignments, specifically project assignments, statistically significant differences can be observed; however, these differences are not considerable between OPM and PMP companies. Thus, it is reasonable to assume that project assignments can be used for different purposes: to improve performance of a business unit or particular project or to develop high potentials according to succession management plans (Chavez, 2011).

Analyzing job moves, its presence duplicates in OPM firms against NONE companies, at the same time, it same process replicates in PMP against OPM firms. We assume that OPM and PMP companies may have diverse aims to be fulfilled when they assign a professional to a different location, for example performance improvement, know-how transfer, corporate control increase, corporate culture unification – or potential development – new skills and knowledge acquisition- (Black *et al.*, 1999). Considering these multiple objectives, we infer that PMP companies may fulfill performance and potential development aims when transferring a professional, while NONE companies may fulfill only performance objectives, as they have no validated information about potential. In the case of OPM firms, if the company assumes

performance as indicator of potential, they may as well fulfill both objectives or they may fulfill only performance objectives.

Considering formal programs, no significant differences between OPM, PMP and NONE companies were observed in formal education. Even if its effectiveness has been under debate over these years (Lombardo and Eichinger, 2002; Hernez-Broome and Hughes, 2004), formal education remains the preferred development tool for companies. We suppose this situation may be explained as it is easier to implement and control than other tools do (against learning by doing, for example); besides, it used to be “the” way to learn (Conger, 2010) and, finally, it is still valued by employees due to its signaling value (Spence, 1974). However, executive education shows a stronger presence (three times more) in PMP companies than NONE companies. And, in the case of corporate programs, considerable differences in its use are shown in NONE (10.7 per cent) against PMP companies (67.4 per cent). These results confirm Rothwell and Kazanas’ (2003) affirmation that formal programs may prepare employees for career advancement or help them to improve job performance.

Limitations

As is the case in all studies, the current study has limitations.

First, we were unable to identify a sound theoretical framework interweaving the different steps of talent management and specifically the link between talent identification and development tools. Consequently, the hypothesis development was grounded in the contributions of several authors.

Second, the hypotheses were structured to verify the existence of a relationship, not the quality or type of relationship due to the aforementioned lack of theoretical background.

Finally, it would be interesting to know the reasons underpinning different development tools, as they may fulfill performance or potential objectives (e.g. transfers, training, etc.).

Implications for practice

Taking the results of this research into consideration, some practical implications can be considered:

- After identifying the roles that have the greatest impact on the business strategy (Collings and Mellahi, 2009), organizations need to identify the right people to fill them (McDonnell and Collings, 2011).
- To identify the right people, organizations need to gather information on performance and potential, as it is known that prediction validity increases with the utilization of multiple assessment instruments. Therefore, rather than relying on any one tool, companies – regardless of its capital origin or size – should use a multisource approach to talent identification, complementing performance and potential information to make sound predictions concerning key people.
- Results suggest that the better the quality of the information involved during the identification stage, the higher the contribution to development investment decisions. Hence, it is recommended that companies rely on higher-quality diagnostic information, as this process could facilitate a better selection of different development tools to fulfill specific objectives. As a result, companies would contribute more effectively to the personal development of talented candidates and at the same time achieve more effective business results. Ideally, a perfect match between identification and development strategies is needed, given

the limited financial and managerial resources available to attract, select, develop and retain top performers (Iles *et al.*, 2010).

- Organizations should consider the HR organizational design because the existence of a Development Department favors the implementation of a greater number of identification and development tools. Effective talent management implementation calls for a skilled HR professional to fulfill the different roles proposed by Farndale *et al.* (2010), paying special attention to the champion of processes role.

Conclusions

Most publications on the topic of talent management processes are nonempirical and take a rather “normative” stance (i.e. prescribing and appraising, rather than describing and interpreting). This research has delved into an unexplored area, the relationship between the talent identification process and the use of development tools.

The results indicate that hypothesis 1, which expected the number of talent identification processes to have a positive effect on the implementation of talent management development tools, is supported. The findings in our study clearly demonstrate that a more comprehensive talent identification process (performance management and potential identification) favors the deployment of talent development initiatives. Even when this relationship is controlled by nationality and size, the effect is still valid.

Regarding our second hypothesis, it was partially supported. Companies with different talent identification processes in place (PMP vs OPM and NONE companies) show different percentages in the use of almost all development tools considered, with the exception of formal education and job rotation.

Finally, there is support for hypothesis 3 as well. The existence of a Development Department favors the implementation of identification and development tools.

By highlighting the relation between different talent management processes (identification and development), this research supports, empirically, the concepts of horizontal coordination/internal consistency proposed by Farndale *et al.* (2010) and Stahl *et al.* (2007).

We conclude that organizations are allowed to tailor development practices more effectively when they have a more comprehensive talent identification process. The consistency between practices is critical but often overlooked. Both processes (talent identification and development) contribute to strategically manage talent flows so that individuals with the needed competencies are available when needed and are aligned with the right jobs based on the organization’s objectives (Iles *et al.*, 2010; Tarique and Schuler, 2010).

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