

Career management in digital age: a study of leadership's competencies and practices applied for IT professionals

Gestão de carreiras na era digital: um estudo sobre competências dos líderes e práticas adotadas na gestão de profissionais da área de TI

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ABSTRACT

Purpose: this research seeks to identify the main competencies and career management practices applied by leaders of large IT services organizations, highlighting them in degrees of relevance for career guidance for technical teams between Generations X and Y coexisting in the Digital Age. Additionally, the research factors a major transformation in the work relationships environment, turning to the full remote mode, besides the digital acceleration caused by the coronavirus pandemic in Brazil during 2020.

Design/Methodology/approach: the research was carried out with a qualitative methodology, with in-depth interviews with a semi-structured script, portraying the experiences of top leaders.

Findings: highlights as relevant competencies: the importance of the manager's role as to career guidance, management skills of generational expectations, leadership style oriented to the knowledge worker, besides the affiliative aspects in the relationship with the employees. As for management practices, highlights: training diagnostic, frequent communication, promotion of talents with high potential, adaptation of career plans, adoption of a differentiated coaching process for each generation and, above all, encouragement of the employee's protagonism throughout the career planning process.

Research limitations: the study has limitations regarding companies' profiles with restricted instruments related to human resources' methodologies, proper people's development tools, or internal support developing talent and minimum maturity processes for managers leading career development counting with Information Technology business orientation in Brazil.

Originality/value: significant contribution regarding career management in a remote work environment with 2 generations co-existing in an accelerated digitalization season.

Keywords: Career management; Digital age; IT careers; Generations X and Y; Remote work

RESUMO

Objetivo: pesquisa busca identificar as principais competências e práticas de gestão de carreira aplicadas por líderes de grandes organizações prestadoras de serviços de TI, destacando-as em graus de relevância para orientação de carreira para equipes técnicas entre as Gerações X e Y coexistindo na Era Digital. Adicionalmente, a pesquisa fatora a transformação nas relações no ambiente de trabalho, convertidas por completo para o modelo remoto, além da aceleração digital causada pela pandemia do coronavírus no Brasil em 2020.

Metodologia: a pesquisa foi realizada com metodologia qualitativa, com entrevistas em profundidade com roteiro semiestruturado, retratando as experiências das principais lideranças,

Resultados: destacam-se como competências relevantes: importância do papel do gestor quanto à orientação de carreiras, habilidades de gestão de expectativas geracionais, estilo de liderança orientado para o trabalhador do conhecimento, além de aspectos afiliativos na relação aos funcionários. Quanto às práticas de gestão, destaque-se: diagnóstico de capacitação, comunicação frequente, promoção de talentos com alto potencial, adaptação dos planos de carreira, adoção de um processo de *coaching* diferenciado para cada geração e, incentivo ao protagonismo do funcionário no processo de planejamento de carreira.

Limitações de pesquisa: o estudo apresenta limitações quanto ao perfil de empresas com limitação de instrumentos relacionados à metodologia de gestão de recursos humanos, ferramentas apropriadas para desenvolvimento de pessoas, ou suporte interno para desenvolvimento de talentos e maturidade de processos mínima para gestores de carreiras que contam com Tecnologia de Informação como orientação de negócios no Brasil.

Originalidade: contribuição significativa quanto a gestão de carreiras em ambiente de trabalho remoto entre 2 gerações coexistindo durante um período de aceleração digital.

Palavras-chave: Gestão de carreiras; Era digital; Carreiras em TI; Gerações X e Y; Trabalho remoto

1 INTRODUCTION

Technological evolution has grown exponentially in the last five years, driving new disruptive business models in Brazilian organizations. Innovation is a competitive differential that can generate productivity improvement and increase the growth capacity of new digital revenue sources such as electronic sales channels, products, and services business platforms. In 2021 organizations' investments in Information Technology (IT) have grown in Brazil at the rate of 18.3%, 11.7% new jobs and 12.9% salary increase for high specialized professionals (BRASSCOM, 2021). With the advent of 2020 pandemic caused by COVID19, traditional companies accelerated digital investments to support its new business models, therefore the traditional corporate ways of working were quickly reinvented embracing new communication channels, frequency and style that challenged managers to adapt their leadership skills never seen before in

theoretical construction of the area. This context led to a heating up of the IT market and increased the competition for talents that masters disruptive technologies, even if under a negative GDP of 4.40% (BCB, 2021).

The demand for professionals who have knowledge in digital practices, allied to innovation processes as a factor of competitive differentiation in corporate environments, is growing enormously in Brazil. Given such volatility, the challenges are increasing for people managers regarding career guidance in IT organizations, which must keep the Human Resources staff continuously updated, in high performance and long-lasting careers in the corporate line. On average, 40% of IT people's leaders projects that their workforce needs retraining in less than 6 months and 94% expects their employees to be the protagonist in upgrading their regular on-the-job activities, i.e., without direct investment from companies (WEF, 2020).

The problem that is forming in the career management strategy of leaders responsible for large contingents of people in the presented context, shows that if they do not adopt sustainable practices, will be the loss of investments due to obsolescence of knowledge or skills of people by the accelerated advancement of technology. In the last five years, the profile of the IT manager has become dependent not only on the availability of professionals in a booming market.

From the point of view of the leader, responsible for delivering projects in the digital area, one of the main challenges is to retain the best professionals with the best and latest technological training to differentiate themselves from competitors in the market. Thus begins the challenge for the career manager, who must develop his or her competencies to be able to identify and plan the career investments for the two main generations of professionals in their teams: Generations X and Y. Those generations have different needs, expectations, purposes, and career timing that managers shall identify and deal properly to retain and develop in their organizations. Both generations are highly needed for innovation in digital projects, understanding a broader customer ecosystem and add value for products or services provided by large corporations. That forces leaders to develop those 2 co-existing generations, finding

ways to retain and develop their talents in a long journey, but also attract new Generation Z coming with bright skills to the corporate market. Few theories approached such kind of exponential growth of talent war, supplying large consulting companies' demands of skilled people to execute digital projects in a new way of remote work found in 2020 and 2021.

Career management has been challenged by remote work, forcing leadership to adapt their competencies and practices in a short period of time. In the IT area, a large contingent of people, who in a way were already included in a remote work environment, but in a hybrid format, was forced to settle in the remote model permanently in their homes, causing the competencies and practices of career management to be adapted to the communication protocols, there is a greater frequency of this communication, team integration, collaboration on virtual projects, the manager's perception of productivity, and the manager has to deal with the self-concern of the employee's performance evaluation, to avoid the accelerated turnover of personnel given the volume and global competition of digital projects that has been formed since 2020. Distance from the leader, sense of belonging and being part of the organizational culture were concerns that employees started to feel insecure and behind the radar of top management recognition cycles. Digital native talents were hired, on boarded and connected virtually to the values of the manager but also the corporate culture, a phenomenal disruption compared to previous research.

According to WEF (2020), during 2020 about 44% of the global workforce was re-directed to remote mode, generating relevant concerns by people's managers regarding employee productivity and well-being. Another important aspect in the research was how to address in people management, the way to create the sense of community, establish the connection with the company and the sense of belonging through virtual collaboration platforms. On the other hand, theoretical fundamentals are key to solidify the manager role, identify the gaps and rapidly adapt into a new way of working in the remote environment. Manager that faced

difficulty to connect with their staff, how to identify development needs and continue delivering results struggled during the process finding resources to keep people engaged throughout the change.

The main objective of this study is to identify the leading practices and competencies regarding career management practices in Digital Age, encompassing managers in IT service companies in Brazil dealing with different expectations related to pace or career growth, values, sense of belonging, impacting the business, recognition cycles and mainly the relationship with the manager by Generations X and Y, especially in the remote management modality. In addition, find gaps from theoretical background, pointing out the recent findings from senior leaders challenged by the accelerated change in the work environment caused by the coronavirus pandemic season. Thus, explore how these findings bring a better understanding for the career managers to evolve the research beyond the theoretical background developed in the past years, creating a dilemma of long cycles of career planning, communication process and correlating with practical contributions from this research. This research would provide the main competences and practices for theoretical background, prioritizing the most relevant ones during the accelerated change to remote work, 2 types of generations and talent war accelerated after the pandemic season.

2 THEORETICAL BACKGROUND

The first studies about a new Era focused on differentiation based on knowledge are due to Peter Drucker (1969), who defined the Age of Discontinuity as a set of behavioral changes in a society hitherto focused on industrial production in the 1970s, converting to a new society based on knowledge and its applications for economic development.

The profile of companies and organizations was also changing for professionals to serve with greater market coverage, smaller economic frontiers,

requiring professionals with broad knowledge that could solve common problems of society. Difficulties in the management model of these new professionals began to emerge, since they combined a more independent behavior, but with the dependence on a corporate employee status. According to Drucker (1969), the discontinuity of the knowledge society causes a radical change in the power structure, with new responsibilities, demands for higher salaries, new compensation models going beyond the responsibilities of a social leadership.

Managers going through this decision-making moment, according to Coda (2016), take into consideration the following alternatives:

a) return a former talent to the labor market for a reflection of natural selection, on issues of competition for the natural survival of the species;

b) invest in the recovery of the outdated professional and with greater risks of putting his reputation as a manager at risk or increasing qualitative risks in the delivery of a relevant project for a client or for his organization;

c) how the manager can make use of or invest in corporate education structures or agreements with public-private entities for recycling, as well as in new training for professionals in this low performance condition, taking into consideration cognitive, personal and motivational factors.

A study by Kim, Williams, Rothwell, and Penaloza (2014) regarding technical talent describes a particular concern about management, relating it to studies of knowledge-oriented professionals, knowledge workers, or knowledge workers. Knowledge worker is a definition dominated by the cognitive effort to apply, develop, or extract value from knowledge (El-Farr, 2009). It can also be understood as intellectual profiles, differentiated technical knowledge, creativity, interactivity, mobilization, networking, and innovation orientation (El-Farr, 2009).

According to the World Economic Forum (WEF, 2020) report, the jobs with the highest growth rate in the world are: data scientists, artificial intelligence specialists, full cloud developer engineers. As for the need for investments in retraining employees, by 2022 about 54% of all employees will require significant retraining to remain active in

their careers in the Technology area. Besides technical characteristics, such as creativity, originality, solely proactivity, critical thinking, persuasion, negotiation, resilience, flexibility, and high problem-solving skills are valued.

Veloso, Dutra, Silva, and Trevisan (2016) pointed out that the Baby Boomer, X, and Y generations represents the importance in managerial interventions between different generations of workers to create a positive work environment. This positive work environment can also be measured by the degrees of engagement that organizations are able to obtain from employees. Nine constructs are considered critical to an organizational environment according to the impacts of employees' affiliative commitments to the organization: organizational commitment, meaning of work, social responsibility, compensation, work-life balance, learning and development, professional growth opportunities, leadership, and peer relationships (Silva et al., 2013; Veloso et al., 2020).

This categorization of generations is not unanimous among international studies since Hershatter and Epstein (2010, 2016) understand that Generation Y or Millennials is the one who entered the labor market in 2004. This generation has incorporated technology as a "sixth sense", being an integrated form of interaction with the outside world.

Promoting career progress based on behavioral competencies also helps the management of new generations that are entering the job market, for example the so-called generation Y, whose profile is defined, among other characteristics, by Internet access, information overload, and overprotective parents. It is common for People Management professionals to admit that this new workforce presents other behavioral competencies, often misunderstood, as well as demands for greater flexibility at work, significant positions, professional freedom, greater rewards and balance between life and work than professionals from previous generations (Coda, 2016).

In an article developed by Kim, Williams, Rothwell, and Penaloza (2014), the knowledge management hypothesis is reinforced since the management of

technical professionals will be more challenged by the shortage of data scientists, engineers, and IT professionals.

Authors such as Prahalad and Hamel (1990), Fleury and Fleury (1995), Dutra (2001), Le Boterf (2003), Ferreira (2015), and Coda (2016) have addressed the topic from the perspective of competency models and innovation in people management. Organizations that adopt the competency-based management model, especially with emphasis on behavioral nature, makes explicit what is expected as the desired performance of their employees, as well as what the future and the career of these people depend on according to the values in these organizations. Consequently, these organizations made clear which competencies they bring in terms of valorization, recognition, and professional development. They also allow to define professional profiles that favor productivity by being more compatible with the jobs, by identifying points of improvement and promote performance management through measurable and observable criteria, encouraging employees to take responsibility for their own professional development (Coda, 2016).

2.1 Remote people management, the leading trend

With the advent of the pandemic caused by the coronavirus, as of March 2020, Brazil recorded that about 80% of workers were disabled or without sufficient resources to work remotely (World Bank Home Based Work, 2020). In this scenario, managers were forced to enable remote access platforms, send their employees home following guidelines imposed by Brazilian states due to the limited capacity of patient care by the national private and public Health System. In a matter of days, managers were challenged to move their teams to their homes, a movement proven by the exponential increase in the use of communication systems as occurred in the Zoom platform, which increased its use by 67% in one month (Leonardi, 2020).

Younger generations or those understood as natively digital, such as Generation Y or the Millennials, considers a face-to-face experience more

interesting in offices (Rose, 2019). Virtual communication platforms such as Slack, Zoom, WebEx, Microsoft Teams, as well as those for virtual collaboration such as Trello and Monday enable teams to work in a synchronized way, and it is possible for managers to control their respective deliverables in a virtual way (Rose, 2019).

A survey conducted by US economist Adam Ozimek (2020) indicated that people managers in general perceived that the abrupt shift to remote working mode worked 56% better than expected, 35% responded that it worked within expectations and 10% fell short. People managers in the market, especially, saw that the move to remote work would be positive for the organizational environment. However, the biggest challenges encountered, besides the technological issues on how to establish networks and communication platforms, were: a) increased distractions at home; b) reduced team cohesion and c) teams with less organization at work.

On the other hand, a study by Putri and Amran (2021) showed that working remotely or at home, had a positive and significant effect on work-life balance. The greater the intensity of working from home, the greater an employee's work-life balance will be. However, working from home can also have a negative impact on an employee's work life balance if not done correctly. Considering this statement, in the future the company should pay more attention to the duration and working hours of employees to remain within the standard work-life balance, so that an employee's work time and personal life data are well shared and allow for a happy rather than depressed state.

The mobilization for remote work brought a new form of interaction with employees and guidance, both daily tasks to ensure productivity, and the way to guide the development of the career (Leonardi, 2020). The models of people management and especially career management involves the dimension of human behavior that is more complex to be evaluated in the context of remote work, since communication becomes an essential factor to identify the maturity of an employee and evaluate their results. The remote management process comprises

variables of time, space, and organization, which are fundamental in the choice and creation of virtual teams, as well as in the creation of strategies to improve them. Understanding the culture of a remote employee, how they usually express satisfaction or dissatisfaction, becomes important to the manager to capture such signals remotely (Amigoni, Gurvis, 2009).

According to Amigoni and Gurvis (2009), remote workers also have concerns about being out of sight and out of mind of leadership, that is, they fear being forgotten or perhaps misjudged by those who have the responsibility of coordinating their work and career.

2.2 Career management practices and communication challenges in the remote modality

According to Dutra (2017), the relationship with the manager is important for the person to take the initiative in the career discussion without appearing arrogant or overbearing in this approach. Many managers are not prepared for this kind of approach and may feel uncomfortable or threatened. In this relationship, the following aspects should be highlighted: communication to the manager about your career preferences and expectations; seeking and giving feedback; openness to absorb guidance and suggestions for improvement. There is a fundamental role as a mediator in reconciling expectations between the person and the organization (Dutra, 2017). Some practices that the manager should demonstrate to their teams: establish development dialogue, aiming to prepare people for the future; guide their subordinates; map expectations and opportunities; offer support to subordinates in their development.

Coda (2016) also reinforces the role of the Mentor Manager who works professional reorientation and shares information, stimulating the acquisition of new competencies, identifies in time situations that interferes in the conduction of projects and action plans. The competencies of the Mentor Manager profile are:

coaching; knowledge sharing; people orientation; people development; identification of employees' potential and instructional capacity.

The main means of raising the necessary information to obtain a diagnostic on the needs and training are questionnaires, interviews with managers, direct observation of the execution of employees' tasks, management requests and results of performance evaluation programs, potential and succession plans (Ferreira, 2015).

People are born or receive in their socialization the foundations for more accelerated development or not. Some people will be limited in a certain degree of complexity by not being able to increase their abstraction capacity beyond a certain level, determining the pace of faster growth and others will not (Dutra, 2017).

The categories of learning agility, the basis of study for Dutra (2017) in career management, originate from Lombardo and Eichinger (1996, 2000): mental agility; agility with people; agility with change; agility with results.

Among the possibilities of the career manager, from the diagnostic of potential development from mental agility, agility with people, agility with changes and with results; is the presentation of internal movement options to the talents of his or her team. Studies reported in an article by Kim, Williams, Rothwell, and Penaloza (2014) indicates that, in internal movement processes or external attraction of new talent, the importance of the management and transfer of tacit knowledge of technical teams is also highlighted. Organizations that demonstrated best practices in career management understand that, for example, it is insufficient to bring in new talent and simply replace their retired staff.

As for the instruments of retention, the career manager of technical resources, can explore the salary compensation or financial awards are important, but not the only ones. Compared to the quality of the work environment, culture and, above all, the challenge of interesting work, they are more effective as factors for retention of this type of professional in organizations. The organizations that demonstrate the best retention practices approaches the theme in a more holistic way, offering flexible, transparent careers so that people feel challenged and

included. People incorporate interests for career paths into their own development plans and career planning. When it comes to recognition, managers adopt a variety of techniques to ensure that employees feel appreciated for their achievements. Additionally, these managers promote remote and flexible work, as well as foster this culture as one that is desirable, high performing, and will stay with the organization for the long term (Kim, Williams, Rothwell, Penaloza, 2014). Still on retention, El-Farr's (2009) article reinforces Drucker's (2002) studies on stock option instruments or company shares that can be sold in the long term.

In addition to the instruments presented, there is still a great dilemma regarding the career management of technical professionals, and one of the most controversial is the Dual Ladder System or Dual Path System practice. Cited in an article authored by Kim, Williams, Rothwell and Penaloza (2014), this concept was developed by Allen, Katz (1986), Hesketh, Gardner and Lissner (1992). This practice brings the possibility of developing the technical career and moving to the managerial side without punishing professionals when they fail in managerial positions, putting technicians at the same level of prestige, financial compensation and organizational status as if they were in leadership positions, but without direct people management. In this system, career advancement for these individuals tends to be the reward for loyalty rather than real career advancement in the organization even though they are individual contributors.

Talent leadership also identifies people with high potential or key talent (Dutra, 2017), who have conditions to occupy in the future critical positions for the survival, development or expansion of the organization or the business. In an article by Veloso, Dutra, Silva, and Trevisan (2018), the authors expand the context of talent management and refer to the study by Cadigan, Roulin, and Neville (2017) who addressed the concept of people with potential to key positions, typically treated as High Potential or A-positions, with the format of managing strategic functions of the organization with potential demand with high performance variability.

Additionally, career management in the remote modality presents new challenges of communication and understanding the affiliative needs of developing talent, which managers must adapt to the new reality. According to research by Donald Sull, Charles Sull, and Josh Bersin (2020), four principles were identified that managers can adopt to increase their teams' performance in remote work during the pandemic: 1) maintain frequency, transparency, and consistency in communication; 2) provide support regarding physical and mental health; 3) help teams maintain high productivity and engagement; 4) manage the quality-of-life paradox in remote work.

On the other hand, a study by Sako (2021), highlights the opportunity for increased productivity of IT professionals in the remote modality, which increased between 10% and 13% in 2020, besides opening greater possibilities for task-oriented work, multiple simultaneous jobs, challenging the traditional work environment with high control over employee routines. To people's career managers, a greater challenge opens up to generate a sense of belonging, creating instruments in order to break the routine of isolated work and promote new forms of social integration at work, increasingly seeking to understand the movements, insecurities and meet the affiliative aspects in the relationship with the company.

3 METHODOLOGICAL PROCEDURES

This is a qualitative and descriptive research. The method used was in-depth interviews with a semi-structured script based on section 2 - Theoretical background, starting with 1 questionnaire prioritizing 3 out of 7 pre-selected Career Management Practices and then answer 2 open questions.

The interview script was designed with questions to capture the usage of the theoretical topics, the most efficient techniques applied by these executives to meet their organizational goals. Also, the questions were elaborated per the pre-defined Categories of Analysis the Author according to the main objectives and

hypothesis of this research (LAVILLE, DIONNE, 1999). Also opened the possibility to overcome the theoretical background with new insights, captured as *InVivo* categories in accordance with the research methodology. Those new categories were capture by the Author, based on the criteria where the practice or competence cited by the executive were not previously considered in the theoretical background, demonstrating innovation developed by the executive leaders throughout their daily experiences in a new way of remote working at pandemic season. Those were valued findings to this research, adding progress in this theoretical area. Interview script is described in the Appendix 1.

This research considered 6 respondents, all executive leaders at large IT consulting companies in Brazil, with international background and seasoned with Brazilian market. Regarding the profile of the respondents, a group of leaders-managers with more than 20 years of experience was selected, positioned in the first echelon of IT services companies operating in Brazil with more than 2,000 employees, part of the Author's relationship and some members at BRASSCOM. They are qualified as: presidents, partners or directors of companies directly involved with qualified digital projects with the use of Third Platform technologies. Such technologies are considered as Third Platform (Gartner Research, 2012), a concept based on the harmonization and exponential adoption of Mobility, Social Media, Cloud Computing and Data Analytics technologies to improve digital business results.

The unit of analysis of the research is the perception of people's leaders in the Information Technology industry, the responsibility for career guidance of professionals with technical profiles in the X-Y Generations accentuated with the dynamics of remote work. Primary data was collected by videoconference, recorded, with formal written consent from the interviewee to participate in the scientific research. The literal transcription of the recordings was made to facilitate content analysis.

Content analysis was performed using the coding technique with the support of Atlas.ti software. Similarities and key themes were identified in the transcripts of the interviewees' statements (Almeida et al., 2019; Martins, 2009; Bardin, 2011).

As a result of the coding process, graphs were prepared with frequencies of the codes extracted from Atlas.ti, ordering the frequencies of the codes, from highest to lowest, allowing the prioritization of the categories of analysis, exporting tables that would be migrated to Microsoft Excel and enable Pareto analysis indicating the most relevant practices and competences.

4 RESULTS AND CONCLUSIONS

As an instrument of data collection on the perception of people's leaders regarding competencies and practices of career guidance, the semi-structured interview script of this research was prepared in two categories of analysis: a) Career Management Competencies - CMC; b) Career Management Practices - CMP.

The semi-structured interview script was conducted by means of two open questions regarding the CMCs and a multiple-choice form to prioritize the CMPs where each interviewee chose, among the 7 Career Management Practices considered in the theoretical reference, the 3 most relevant in his/her professional experience. The 7 CMPs discussed in the interview form were:

1. Capacity Building and Training Diagnostic (Coda, 2016);
2. Learning Agility (Lombardo Eichinger, 1996, 2000);
3. High Potential Careers or A-positions (Cadigan et al., 2017);
4. Dual Ladder System or Dual Path System (Allen, et al. 1986);
5. Movement as a career strategy (Dutra, 2017);
6. Career plan (Araújo, Garcia, 2009);
7. Career trajectory and technical talent management program (Ferreira, 2015) and (Kim, Williams, Rothwell, Penaloza, 2014).

Throughout the depth interview process, new CMPs were identified that were originally not listed in the seven initially on the Multiple-Choice Form. Such CMPs were considered in the theoretical framework, were captured, and coded in the

research, creating new *InVivo* categories as they are relevant to the content analysis process considering the frequency of quotes from the interviewees:

8. Differentiated compensation as a retention factor (Kim, Williams, Rothwell, Penaloza, 2014; Drucker, 2002, El-Farr, 2009);
9. Career protagonism by the employee (Dutra, 2017);
10. Training as a factor in retaining people (Coda, 2016);
11. Flexible place and time as a factor of people retention (Kim, Williams, Rothwell, Penaloza, 2014);
12. Succession plan (Ferreira, 2015);
13. Differentiated Career Management practices in remote work (Sull, Sull, Bersin, 2020).

Three Categories of Analysis were defined in the research, clustering the codes and capturing the frequency of citations in Atlas.ti. In Table 1, the results found for each of the 3 Categories Analyzed.

Table 1 – CMCs identified in the in-depth interviews and coded during the content analysis process

Continue...

Category of Analysis: CMCs identified	Code Frequency
Management education, ensuring evolution and change with a focus on interdisciplinary processes, concerned with diversity, adaptive and capable of encouraging authenticity and respect for individual differences (Örtenblad,2006)	11
Capacity to deal with the diversity of individual competencies and behavioral profiles (CODA, 2016)	7
Ability to map the competencies of the team in terms of Knowledge, Skills and Attitudes (CODA, 2016)	18
Fostering the protagonism of people in terms of career development (DUTRA, 2017)	25

Table 1 – CMCs identified in the in-depth interviews and coded during the content analysis process

Continue...

Category of Analysis: CMCs identified	Code Frequency
Forms of retention beyond financial compensation, quality of the work environment, culture, challenge, recognition, flexible careers, inclusion, promotion of remote and flexible work (KIM, WILLIAMS, ROTHWELL, PENALOZA, 2014).	13
Managing relationships and career expectations between people and organization (DUTRA, 2017).	12
Ability to manage shorter career cycles of generation Y (GUTRIDGE, KOMM, LAWSON, 2008).	20
Leadership style oriented to intellectual knowledge workers in the Information Age (EL-FARR, 2009).	40
The role of the manager regarding career orientation (DUTRA, 2017).	77
Mentor Manager Profile, engaging in career guidance and empathy (CODA, 2016).	7
HR's Role in Career Management (FERREIRA, 2015).	10
Purpose at work (DUTRA, 2017).	21
Trust of the manager (CODA, 2016).	20
Knowledge of the Technological Plan by the manager (GARTNER RESEARCH, 2012).	24
Knowledge of market demands and future technologies by the manager (WEF, 2018, 2020).	29
Leader communicating the company's strategy and career possibilities (CODA, 2016; DUTRA, 2017).	17
Priority Time for Career Guidance.	20
Analysis Category: Generational Differences	
Career management skills with generational differences (SILVA et al., 2013; VELOSO et al., 2020).	28
Job stability as a motivation for Generation X (FLEURY; FISCHER, 1992).	5
Generation X work values (DRIES, PEPERMANS, KERPEL, 2008).	26
Generation Y work values (DRIES, PEPERMANS, KERPEL, 2008).	60

Table 1 – CMCs identified in the in-depth interviews and coded during the content analysis process

Category of Analysis: CMCs identified	Code Frequency
Analysis Category: CMPs identified	
1. High Potential Careers A-positions (CADIGAN et al. (2017)	19
2. Agility in Learning (LOMBARDO, EICHINGER, 1996, 2000)	21
3. Capacity Building and Training Diagnosis (CODA, 2016 e FERREIRA, 2015).	39
4. Dual Ladder System (ALLEN et al., 1986)	16
5. Movement as a career strategy (DUTRA, 2017)	23
6. Career Plan (ARAÚJO, GARCIA, 2009)	24
7. Career trajectory (FERREIRA, 2015) e programa de gestão de talentos técnicos (KIM, WILLIAMS, ROTHWELL, PENALOZA, 2014)	3
8. Differentiated compensation as a retention factor (KIM, WILLIAMS, ROTHWELL, PENALOZA, 2014 e DRUCKER, 2002)	4
9. Differentiated Career Management practices in remote work (SULL, SULL, BERSIN, 2020)	21
10. Coaching as a career management practice as a negative aspect perceived by the interviewees - Mentor Manager Profile (CODA, 2016)	9
11. Coaching as a career management practice as a positive aspect perceived by the interviewees - Mentor Manager Profile (CODA, 2016)	24
12. Frequent communication between manager and employees (CODA, 2016; DUTRA, 2017; SILVA et al., 2013; VELOSO et al., 2020)	33
13. Career Protagonism by the employee (DUTRA, 2017)	22
14. Succession plan (FERREIRA, 2015).	6
15. Training as a factor of people retention (CODA, 2016)	18
16. Place and flexible hours as a factor of people retention (KIM, WILLIAMS, ROTHWELL, PENALOZA, 2014) e pesquisa ADP (2015)	7

Source: Prepared by the Author (2020) based on quotes granted by the interviewees

Table 2 presents the degrees of relevance of the analyzed CMPs, six of which comprise more than 50% of relevance of citations made by the interviewees.

Table 2 – Career Management Practices - CMP - Analysis of the frequency of codes

Continue...

Career Management Practice	Citations	Relative frequency of citations in the survey	Degree of relevance
Capacity Building and Training Diagnostic (Coda, 2016 e Ferreira, 2015).	39	13%	13%
InVivo - Frequent communication between manager and employees (Coda, 2016; Dutra, 2017; Silva et al., 2013; Veloso et al., 2020).	33	11%	25%
Career plan (Ferreira, 2015).	27	9%	34%
Coaching as a career management practice as a positive aspect perceived by respondents - Mentor Manager Profile (Coda, 2016).	24	8%	43%
Movement as a career strategy (Dutra, 2017).	23	8%	51%
InVivo - Career Protagonism by the employee (DUTRA, 2017).	22	8%	58%
Agility in Learning (Lombardo, Eichinger, 1996, 2000).	21	7%	65%
Differentiated Career Management practices in remote work (Sull, Sull, Bersin, 2020).	21	7%	73%
High Potential Careers A-positions (Cadigan et al. (2017).	19	7%	79%
InVivo - Training as a factor in retaining people (CODA, 2016).	18	6%	85%
Dual Ladder System or Dual Path System (Allen et al., 1986).	16	6%	91%
Coaching as a career management practice as a negative aspect perceived by respondents - Mentor Manager Profile (Coda, 2016).	9	3%	94%
InVivo - Location and flexible hours as a factor in retaining people (Kim, Williams, Rothwell, Penaloza, 2014).	7	2%	97%

Table 2 – Career Management Practices - CMP - Analysis of the frequency of codes

Conclusion

Career Management Practice	Citations	Relative frequency of citations in the survey	Degree of relevance
<i>InVivo</i> - Succession plan (Ferreira, 2015).	6	2%	99%
<i>InVivo</i> - Differentiated compensation as a retention factor (Kim, Williams, Rothwell, Penaloza, 2014 e Drucker, 2002; El-Farr, 2009).	4	1%	100%
Career trajectory and technical talent management program (Ferreira, 2015) e (Kim, Williams, Rothwell, Penaloza, 2014).	0	0%	100%
Total Citations	289	100%	

Source: Prepared by the Authors based on the analysis of codes collected in the interviews

It is identified through the degrees of relevance of the analyzed CMPs, that the aspects of the form of career orientation between leader-leader have been modified in the sense of the frequency of communication, being the 2nd highest degree (Coda, 2016; Dutra, 2017; Silva et al, 2013; Veloso et al., 2020) a need to revitalize the Career Plan (Ferreira, 2015), promoting it for the inclusion of the sense of belonging, space in the organization in the long term, combined of a promotion of Career Protagonism by the employee (Dutra, 2017). Above all, the connection with technologies considered as Third Platform (Gartner Research, 2012), stands out with 1st degree of relevance for career managers to not only identify the need, but also provide space for the development of people by the practice of Capacity Building and Training Diagnostic (Coda, 2016 e Ferreira, 2015).

As for the Career Management Competences - CMCs - two open questions were prepared and used in the semi-structured interviews, seeking confirmation of the theory in the practice of the managers interviewed, in which each executive interviewed spoke freely about his or her experiences of career management in the

Digital Era. In the content analysis of the interviews with the six executives, 21 Career Management Competencies or CMCs were identified, of which 6 competencies represent degrees of relevance over more than 50% of the frequency of citations in the survey. Table 3 presents the competencies ordered by quantity, frequency, and degrees of relevance for the surveyed CMCs:

Table 3 – Career Management Competencies - CMCs - Code frequency analysis

Continue...

Career Management Competencies	Citations	Relative frequency of citations in the survey	Degree of relevance
The role of the manager regarding career guidance (Dutra, 2017).	77	16%	16%
Values regarding the work Generation Y (Dries, Pepermans, Kerpel, 2008).	60	12%	28%
Leadership style oriented to knowledge workers or individuals with high intellectual capital in the Information Age (El-Farr, 2009).	40	8%	36%
Knowledge of market demands and future technologies by the manager (WEF, 2018,2020).	29	6%	42%
Skill in career management with generational differences (Silva et al., 2013; Veloso et al., 2020).	28	6%	48%
Values in relation to work Generation X (Dries, Pepermans, Kerpel, 2008).	26	5%	53%
Fostering team protagonism (Dutra, 2017).	25	5%	58%
Knowledge of the Technology Plan (Gartner Research, 2012).	24	5%	63%
InVivo - Building purpose at work (Dutra,2017).	21	4%	67%
Ability to manage shorter career cycles of generation Y.	20	4%	71%

Table 3 – Career Management Competencies - CMCs - Code frequency analysis

Conclusion

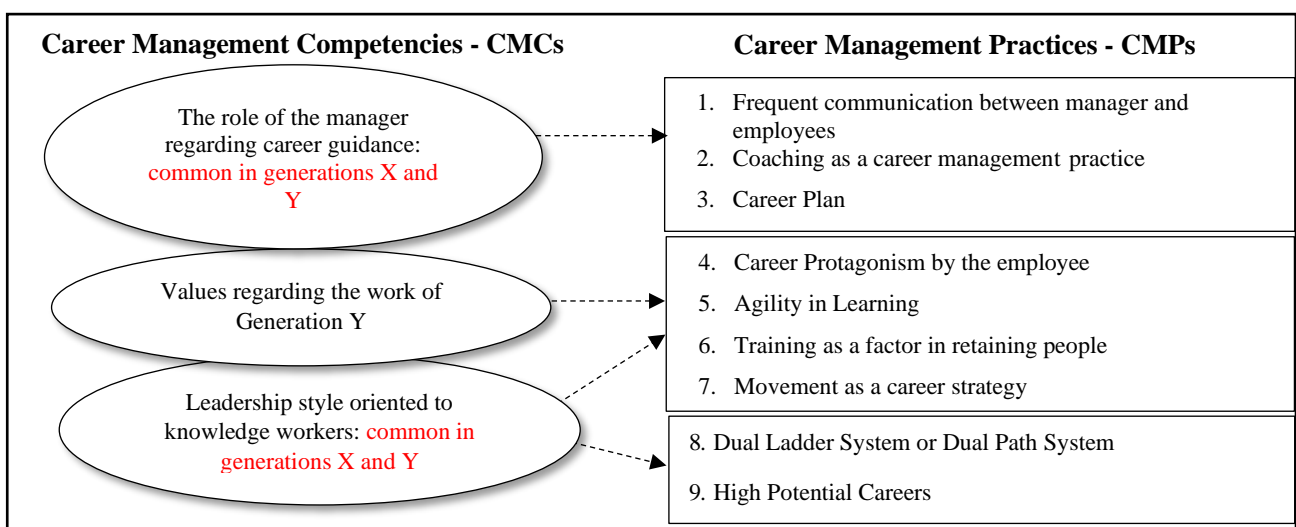
Career Management Competencies	Citations	Relative frequency of citations in the survey	Degree of relevance
InVivo - Building purpose at work (Dutra,2017).	21	4%	67%
Ability to manage shorter career cycles of generation Y.	20	4%	71%
InVivo - Trust of the manager (Coda, 2016).	20	4%	76%
Prioritization of time for Career Guidance.	20	4%	80%
Ability to map team competencies regarding Knowledge, Skills and Attitudes (Coda, 2016).	18	4%	83%
InVivo - Leader Communicating Company Direction and career possibilities (Coda, 2016; Dutra, 2017).	17	3%	87%
InVivo - Ways of retention beyond financial compensation (Kim, Williams, Rothwell, Penalzoa, 2014).	13	3%	89%
Managing relationships and career expectations between people and organization (Dutra, 2017).	12	2%	92%
InVivo - Management education, to ensure evolution and change with a focus on processes (Örtenblad,2006).	11	2%	94%
Role of HR in Career Management (Ferreira, 2015).	10	2%	96%
Ability to deal with the diversity of competencies (Silva et al., 2013; Veloso et al., 2020).	7	1%	98%
Mentor Manager Profile (Coda, 2016).	7	1%	99%
InVivo - Job stability as a motivation of Generation X (Fleury; Fischer, 1992).	5	1%	100%
Total Citations	490	100%	

Source: Prepared by the Authors based on the analysis of codes collected in the interviews (2020)

It is identified through the degrees of relevance of the analyzed CMCs, as well as the CMPs, that the aspects of the leader-leaders relationship have changed mainly with respect to communication, management on generational values and expectations of generations, especially Generation Y, which are natively of the Information Age (El-Farr, 2009). Considering that Generation Y knows and masters very well the technological plan on the Third Platform (Gartner Research, 2012), career managers must also closely follow the evolution of the technological plan to better dialogue with the different generations, leading them to encourage career protagonism by the employee.

Based on the stratification tables of the subcategories of analysis, it is possible that the CMCs refer to the respective CMPs cited by the interviewees in each speech fragment. With the fragments of the interviewees' speeches, granted in the quotes, it is possible to trace associations of CMCs and CMPs with the support of the Atlas.ti content analysis platform, which generates tables with the stratification of the codifications performed by the researcher. To better illustrate these associations, Figure 1 lists the three most relevant CMCs for the nine CMPs in the Digital Era according to the executives interviewed, distinguishing what is common and different in Generations X and Y.

Figure 1 – Association between the three CMCs and their nine most relevant CMPs in the Digital Age present in Generations X and Y



Source: Prepared by the Authors (2020)

The association illustrated in Figure 1 confirms that the role of the manager has greater relevance, to structure the paths of a career plan, repurposed in cycles of more frequent interactions, acting as a trusted coach for a talent especially of Generation Y. The values of Generation Y (Dries, Pepermans, Kerpel, 2008) challenge career managers to provide more options on trajectories and speed to the achievement of the shorter expectations of this generation. The leadership style must therefore be adapted for the Information Age (El-Farr, 2009), providing space for training that keeps the appreciation of Generation Y in focus for the market, not only for the current company or organization with which the employee has an employment relationship, being above all a recognition before the market. It is worth pointing out that a talent of the Information Age, leading a Third Platform technology, seeks growth in the organization, in the same way that a high potential leadership talent has in the so-called Dual Ladder or Dual Path System (Allen et al., 1986).

The insights collected from career managers bring significant contributions to the development of advanced skills and practices, representing everything from the complexity to the volatility of the Digital Age. The Digital Age challenges the knowledge worker to continuously adapt to the new roles that the market demands (Budtz-Jorgensen et al., 2019), as well as brings a look at the importance of career protagonism (Dutra, 2017), especially among Millennials (Veloso et al., 2016).

Different approaches are identified from the interviewees regarding the construction of a Career Plan (Araújo, Garcia, 2009), adapting the traditional times of recognition and promotion in medium-long terms, for a reality of shorter days under the domain of the leader-leaders relationship, creating a sense of accomplishment on a monthly or quarterly frequency. The cycles of possibilities for growth, recognition or promotion are therefore nurtured in shorter cycles, much shorter than the traditional 12 months as they apply in companies not related to Information Technology.

Additionally, for most of the interviewees, the competency "The role of the manager as career guidance", in Brazil, has proven to be relevant, challenging them

to develop both generations, either through the practice "Capacity building and training diagnostic" (Coda, 2016), or by bringing a broader vision of the market to the employee, pointing out the areas of growth opportunity and stimulating them to their own reflection and protagonism in their career. This combination of skills and practices creates a greater connection between manager and employee, as it brings security and trust in the relationship, going beyond the work environment. There is a consensus among the interviewees about the practice of frequent communication in remote work, increasing to weekly interactions and intervals shorter than 30 minutes. This practice is confirmed by Bersin and Waggi's research (2020), which indicated that 23% of the employees needed more communication with their managers, 21% felt a need to check their emotional health status and their priority agendas at work. Also, in Bersin and Waggi's (2020) research, 14% of the participants appreciated flexibility in their work schedule and 11% recognized emotional support by the company or manager.

It is observed that, among the executives surveyed, one can train people regarding content and technological evolution through micro-training that transmits an experience of greater practicality and benefits to short-term tasks. However, the challenge of career development goes through the evolution of behavioral aspects, which have greater complexity and ability to react to the speed expected by the organization to achieve certain business results and the recognition of talent. In this sense, leaders have promoted new dynamics with the teams to connect to the affiliative aspects, better understand the talent's desires and create ways to mobilize for change considering growth potential inside or outside the organization.

It is identified that the second-tier management layer faces the challenge of maintaining a prioritization discipline in career management in their work routines and the frequency in communication with employees to be able to realize the organizational benefits and the direct result in the business. By relating better with the knowledge worker, who values intellectual capital and, above all, by adopting a

leadership style adapted to the generations, the manager may be noticed as a differential factor for the organization and for the market. One can notice a concern of the top leadership in dedicating time to this process, sustaining the second echelon to also promote more time for career guidance.

The costs referring to Generation X are higher since they bring a professional experience and accumulation of years of work with inflation-adjusted salaries. The career manager has, however, the challenge of feeding the personnel chain with lower costs, hiring, and mentoring younger Generation Y professionals with different levels of technological knowledge, from the initial hiring phase - they can be professionals coming from an academic or even non-academic background with high knowledge in specific technologies. The skill set in managing careers with generational differences is a determining factor for a manager's results, listed as the fifth key competence.

At the end of the career manager development process, financial results will be obtained directly from the better balance of personnel costs, lower overhead costs with low staff turnover, and a retraining plan with responsibilities shared by the company and the employee.

6 CONCLUSION

The main objective of the research was achieved, confirming that the remote work environment accelerated the need for adaptation of competencies and career management practices for the IT segment, since this segment has direct contact with disruptive technologies and high volatility. The dynamics of the relationships and career orientation between leader-individual in IT evolved exponentially in 2020 and continues in 2021, demanding greater frequency, promoting a sense of progress under the domination of these relationships, orientation for a career without borders, with greater confidence, that explores the talent's full potential

for the market, strengthening a trusting and lasting relationship with the manager, which can go beyond the bounds of the organization they are in.

Managers have consolidated career management practices in more than 15 months of pandemic and are beginning to wonder about the best balance to return to face-to-face work. Questions regarding the meanings of hybrid models, the new corporate behavior, a new culture without the need for face-to-face communication formats and focused on the best productivity of technical teams. Certainly, the challenges of retention and career orientation have increased for the IT service leader in Brazil, since the market is in a high ebb of exponential investments in Third Platform technologies and the competition for the best talents has become more acute. There are considerable limitations in Brazil for supplying the demand for talent, increasing the importance of new competencies and career management practices for the retention of all high-performance talent. Both the managers already consolidated in senior positions and the new leaders in training could develop new competencies and career guidance practices, maximizing the results among generations X, Y as well as Z, which is gaining representation in IT service companies.

Additionally, there is room to evolve the research agenda, encompassing Generation Z which has been recently researched, on how the manager would enable a management style, environment and supply multiple career needs regarding the expectation being part of a large organization but being considered for strategic initiatives but preserving financial predictability requested by senior management and shareholders. People retention process challenges managers, from the understanding of behavioral traits and training needs through the application new technologies such as artificial intelligence, facilitating decision making by the people manager. This opens a path of many possibilities for new leaders' development process on how to innovate in career guidance more horizontal, agile, multidisciplinary, and borderless organizations.

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Appendix 1 – Interview script

Continue...

Objective 1	Survey Script	Research Questions
<p>Assess the perception of leaders of IT services companies regarding their managerial competencies most relevant to the career development of their employees at the technical level in the context of the Digital Age.</p>	<p>Question 1 - The role of the manager regarding career orientation (DUTRA, 2017; GUTRIDGE, KOMM, LAWSON, 2008; ÖRTENBLAD, 2006)</p> <p>Question 2 – The competencies of the career manager (CODA, 2016; DUTRA, 2017; EL-FARR, 2009; KIM, WILLIAMS, ROTHWEL, PENALOZA, 2014).</p>	<p>What is your perception about the importance of the role of the IT manager and the protagonism of the professional him/herself regarding the career development process in the Digital Age?</p> <p>Consider in your answer the challenges of career orientation in Generations X (between 1965 and 1980) and Y (between 1981 and 2001).</p> <p>What are the most relevant competencies in your strategy for managing people's careers, especially in the dynamic of remote work we are experiencing in 2020?</p> <p>Discuss some competencies such as: coaching; knowledge sharing; people orientation; people development; identification of employees' potential and instructional capacity for investments in technical or managerial training.</p>

Appendix 1 – Interview script

		Conclusion
Research Form		
Objective 2: Identify the most used remote career guidance practices, considering the differences between generations X and Y		
Career Management Practices. Mark with an "X" the three practices most used in your organization:	According to your experience regarding career management tools, please mark with an "X" the three most used and efficient practices in your organization for Generations X (between 1965 and 1980) and Y (between 1981 and 2001) focused on Third Platform innovation projects?	Author (Year)
	Career plan: consists of the elaboration of documents with the steps defined along the time that the employee and the organization will work for the professional development, being reviewed at least every 12 months.	ARAÚJO, GARCIA (2009)
	Career paths: definition for the employee, given by the organization, about the possibilities of his growth within the organization, according to the existing job structure.	DUTRA (2017)
	<i>Dual Ladder System:</i> are there possibilities for growth in the technical or managerial lines with equivalent degrees of recognition and compensation, either for a knowledge worker or for the people leadership line?	ALLEN et al. (1986)
	High Potential Careers or A-positions: does your organization apply a process for identifying high potential individuals and execute it according to principles of a differentiated career for these people?	CADIGAN et al. (2017)
	Capacity Building and Training Diagnosis: in your team, do you apply a criterion for the identification of a professional's knowledge needs and do you make retraining investments?	CODA (2016)
	Agility in Learning: is there a defined methodology to identify the talents that most assimilate new knowledge in disruptive technologies and are served by training investments for their careers to be long-lasting in the technical area?	LOMBARDO, EICHINGER (1996, 2000)
	Movement: use of instruments defined with the employee or between managers regarding vertical and horizontal movement in the employee's career timeline.	DUTRA (2017)

Source: Prepared by the Author (2020)

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2. Development of hypotheses or research questions (empirical studies)	√	√	√	
3. Development of theoretical propositions (theoretical work)	√	√		
4. Theoretical foundation / Literature review	√	√		
5. Definition of methodological procedures	√	√		√
6. Data collection	√			√
7. Statistical analysis				
8. Analysis and interpretation of data	√			√
9. Critical revision of the manuscript	√	√	√	√
10. Manuscript writing	√			
11. Other (please specify)				

Conflict of Interest

The authors have stated that there is no conflict of interest.

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