A bibliometric analysis of psychological contract research

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A BIBLIOMETRIC ANALYSIS OF PSYCHOLOGICAL CONTRACT RESEARCH: CURRENT STATUS DEVELOPMENT, AND FUTURE RESEARCH DIRECTIONS

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ABSTRACT

Purpose: The purpose of this paper is to review and analyse the literature on psychological contract phenomena to date as well as give future research directions in this research area.

Design/methodology/approach: We have conducted a bibliometric analysis of 33 years of research on psychological contract. Our bibliometric findings have identified various perspectives by drawing the landscape and developmental trajectory of psychological contract research over time. A specific bibliographic analysis and visualization tool VOSviewer was employed to evaluate and process 1999 publications in the Scopus, Emerald, EBSCO and Web of Science (WoS) database from 1989 to 2022. Also, author citation analysis, journal co-citation analysis, reference analysis and analysis of 100 milestone articles.

Findings: We detected and visualized the landscape of psychological contract area and track how this landscape has developed. Secondly, we present the findings emerged from our bibliometric review, with emphasize on future research directions and implications.

Originality/value: This paper presents bibliometric analysis of more than 1000 research articles from main databases and review of 100 most prominent papers on psychological contract research topic. This article offers academicians and researchers a more sophisticated understanding of the intellectual and conceptual framework of the research body. We are providing insights about its structural body of knowledge through an overview of the current state of scholarly development in the field of psychological contract.

Key words: Psychological contract, bibliometric analysis, scientific visualization
**Introduction**

In an increasingly turbulent business environment, meeting employees’ expectations and fulfilling obligations is viewed by human resource professionals as an essence for organizational success. For instance, Persson & Wasieleski (2015) argued that contemporary organizations face challenges not only in attracting employees but also in establishing harmony among them to boost their potential and abilities. In response to these issues, organizational scholars have placed a strong emphasis on better understanding the intermediate mechanisms that could explain what is known as the “black box” or the missing link of the human resource management (HRM) and performance paradox (Boxall *et al.*, 2016; Purcell, 2003; Kozhakhmet and Nurgabdeshov, 2022). One of the major intermediate mechanisms in the aforementioned link is the psychological contract (“PC”, hereafter) which can be defined as “an individual’s” beliefs regarding the terms and conditions of a reciprocal exchange agreement between the focal person and another party” (Robinson *et al.*, 1994, p. 137). Since its development, PC theory has been employed by HRM scholars to analyse complex relationships between employees and their organizations.

A significant body of research has been conducted on PC content (i.e., transactional, relational, or ideological currency; Rousseau 1995; Thompson and Bunderson 2003), as well as the positive consequences of PCs (Conway and Briner 2009). To evaluate these studies, researchers have increasingly conducted review studies. A theoretical review of Conway & Briner (2009) critically reviews the construct of PCs, while Cullinane and Dundon (2006) highlight some of the key issues facing the theoretical side of the PC literature. However, both articles don’t have a critical analysis of directions for future research. Also, the number of articles selected for reviewing the topic is small which questions the objectivity of papers. The in-depth bibliometric analysis has not yet been conducted to comprehend the scientific contributions and the breadth of the literature generated surrounding psychological contract.
Such an analysis has the potential to enrich the future development of psychological contract research by acknowledging leading scholars. Additionally, there is a need to integrate the past literature related to psychological contract, which may assist in solidifying the understanding of this area and serve as a foundation for future research. Bibliometric analysis is a valuable tool in various fields and disciplines, as it consolidates the substantial bibliometric database, eliminating any possibility of judgment bias. A variety of review techniques, such as meta-analysis, systematic literature review, and bibliometric analysis, are available to manage the literature database. Unlike systematic literature review which requires a specific scope of study and meta-analysis which necessitates the homogeneity of a research field, bibliometric analysis can reduce the interpretation bias posed by former techniques (Kaur et al., 2022; Behl et al., 2022; Fernandes et al., 2022). In the absence of bibliometric studies on psychological contract, the current research adds to the literature by providing a systematic examination of psychological contract based on bibliometric analysis and attempting to identify the emerging issues or gaps that will need to be addressed in the future. This study seeks to further understand this domain from its evolution to the present by addressing the following research questions:

1. How have the research articles on psychological contract evolved to date and which articles, authors and journals have the remarkable impact to the research area and future research directions?

2. What are the eminent research themes regarding to psychological contract?

3. What are the dimensions of future research pertaining to the research area of psychological contract?

This article intends to contribute to PC research in three ways. First, it presents a novel way of looking at the PC field by analysing co-occurrence and co-citations data. To accomplish this, we have used bibliometric techniques to analyse the related cutting-edge research. Second, we tracked the progression of research topics in PC literature and the underlying theories from
1989 to 2022. Third, we identified and highlighted key research areas along with comprehensive future research directions. In short, this paper aims to incite future work in this field by providing an overview of the related existing knowledge and by laying out a roadmap to help move other studies forward.

**Methodology**

In this review, we use the bibliometric mapping approach, which is a powerful tool for identifying and visualizing different knowledge domains (Börner et al., 2003). Bibliometric analysis is a quantitative linguistic technique used to analyse bibliometric data in order to identify patterns and trends in a particular field of research. This method has been used in conjunction with traditional qualitative literature reviews to provide a brief description of the topic and a list of references. With the development of citation databases, more sophisticated statistical techniques, and software programs that allow for scientific mapping and visualization, bibliometric analysis has become a widely accepted method for assessing particular disciplines and topics (Behl et al, 2022). Consistent with past studies (e.g., Byington et al., 2019), our bibliographic data was derived not only from the Clarivate Analytics Web of Science Core (WoS) collection database but also added other important databases such as Scopus, Emerald, and EBSCO. VOSviewer, a bibliometric analysis tool developed by Van Eck and Waltman (2010), was utilized to analyze big data. This software was selected for its capability to visually showcase bibliometric maps of publications, authors, institutions, and countries in various forms, enabling each project to emphasize unique perspectives. VOSviewer offers advanced interactive capabilities, such as zooming, panning, and searching, enabling users to thoroughly examine their data. Additionally, it provides sophisticated analysis tools like clustering and community detection, enabling users to gain insightful knowledge from their data.
To explore and map the PC research field landscape, we use co-citation analysis (powered by VOSviewer) (Acedo and Casillas 2005). Co-citation refers to a phenomenon when two or more pre-existing documents are cited in the reference list of a third document (Small 1973). According to Small (1973) co-citation implies that there is a link between the two (or more) cited documents. More specifically, cited documents are tied together by these citations. The same author affirms that the total cited documents reflect the current intellectual structure of an area of interest. A co-citation network means that there is a connection among the cited research studies.

In the current research, VOS mapping technique has been utilized and this approach requires to consider similarity matrix as an entry for the evaluations. A similarity matrix can be generated from a co-occurrence matrix by normalizing the latter matrix, which is done by correcting the matrix for differences in the total number of occurrences or co-occurrences of items. In accordance with Van Eck & Waltman (2010), VOSviewer employs a similarity measure which generally known as an association strength. This similarity measure is also called as a proximity index (e.g., Peters and Van Raan 1993) or as the probabilistic affinity index (e.g., Zitt et al. 2000). The similarity $S_{ij}$ between two items $i$ and $j$ is estimated by the following formula:

$$S_{ij} = \frac{C_{ij}}{W_i W_j},$$

where $C_{ij}$ stands for the number of co-occurrences of items $i$ and $j$ and where $W_i$ and $W_j$ denote either the total number of occurrences of items $i$ and $j$ or the total number of co-occurrences of these items. It can be said that the similarity between items $i$ and $j$ determined by using (1) is proportional to the ratio between on the one hand the observed number of co-occurrences of items $i$ and $j$ and on the other hand the expected number of co-occurrences of items $i$ and $j$ under the assumption that occurrences of items $i$ and $j$ are statistically independent (Van Eck
& Waltman, 2010). In short, these statistical techniques may help researchers to analyze the scientific quality and change of developments in knowledge in a specific discipline or subject.

**Sample**

This study examines articles published from 1989 to 2022 from Scopus, Emerald, EBSCO and Web of Science (WoS) databases. Our goal was to observe trends with a large sample instead of a population study; we have tried our best to obtain as many papers as possible for the aforementioned time intervals (Yang et al., 2013). In addition, those databases also provided us with the list of the 5 most influential journals in the field of PC research (i.e., *International Journal of Human Resource Management* (116 articles), *Personnel Review* (60 articles), *Journal of Organizational Behaviour* (59 articles), *Journal of Business Ethics* (49 articles) and *Journal of Vocational Behaviour* (41 articles).

We built our dataset following three steps. First, we search, within the texts in databases mentioned above, the key term “psychological contract”. Second, we added texts that contain other PC-related terms (e.g., psychological contract breach). Lastly, we screened the titles, abstracts and keywords of each article and excluded those studies (e.g., book reviews). Following this process, we identified 2,760 relevant studies published between January 1989 and December 2022. After careful analysing and eliminating some studies, our data totalled 1,999 records. From this data, we collected 73,962 secondary documents via the references cited in the 1,999 initial documents.

**Bibliometric Analyses and Results**

**Author Co-citation Analyses**

According to White and Griffith (1981), the author co-citation network is defined as the network of co-cited authors. Particularly, author A and author B have a co-citation relation
when author A and author B are cited in the same article. Small (1973) suggests that the co-citation frequency of author A and author B can be computed based on the frequency with which the two authors are cited jointly in the initial article. Our findings showed that Denise M. Rousseau, Sandra L. Robinson, William H. Turnley, Elizabeth Morrison, and Lynn Shore appear as the top five leading authors in our field of inquiry (see Fig. 1).

---Place Fig. 1 about here---

Analyses Results Concerning the Most Productive Authors

Our research identifies the top most productive authors within the PC field. Table 1 classifies the most prolific researchers according to their h-index (list on the left) and total number of citations (right-hand list). These two techniques enable us to analyse authors’ contributions from two distinct points. Based on the first ranking, the PC field led by such researchers as Denise M. Rousseau, Simon Restubog, Hans De Witte, Daniel C. Feldman, and Matthijs P. Bal. The second ranking shows that the most productive authors in PC are: Denise M. Rousseau, Daniel C Feldman, William H Tunley, Hans De Witte, and Jacqueline Coyle-Shapiro.

Rousseau’s research is focuses on developing the concept of PCs in order to explain reciprocal exchange agreements between employees and their employers. Her studies have served as a basis for developing common understandings related to employment relationships. Restubog’s studies deal with breaches in psychological contracts in different organizational and individual settings. Witte’s works emphasize the integration of job insecurity issues into PC perspectives, whereas Feldman has enhanced our understanding of how PC violations contribute to employees’ attitudes and behaviours. Bal’s research focuses on looking at PCs within other organizational fields, such as HRM and organizational behaviour (OB).

---Place Table 1 about here---
Analyses of 100 Milestone Articles

In our study, we identified 100 prominent PC papers (from between 1989 to 2022) based on the index of co-citation frequency. Our summary and classification were made based on the major research topics examined in the 100 milestone papers (Table 2).

a. Review of PC Research

After analysing 100 milestone studies, we have observed that five articles represent the overall reviews of PC research. For instance, Cullinane and Dundon’s (2006) review article proposes a different approach to examine PCs on the basis of a more critical evaluation of the field.

b. Determinants of PC, PC Breach and PC Violation

Our results reveal that antecedents of PCs, PC breaches and PC violations represent a large portion of the PC literature. Namely, the results indicate that 29 out of the 100 milestone PC papers were about PCs and PC breach or violation.

c. Development of PC

Seven out of the 100 prominent papers develop the concept and the typologies of PC. For example, Rousseau (1990) categorizes PCs into two distinct types: transactional and relational contracts. The first type refers to contract relationships that are mainly grounded in an economic exchange. The second type of contract is based on trust, loyalty and other intrinsic factors.

d. PC Interdisciplinary

15 out of the 100 influential scientific works focused on applying PC concepts to research. For example, Koh et al., 2004 study examines IT outsourcing success through both customer and supplier perspectives by means of the PCs of customer and supplier executives.
e. **PC Breach/PC Violation**

8 of the 100 papers in our analysis focused on the study of PC breach/violation. For instance, Robinson (1996) offers findings that suggest that high levels of trust in employers may be enough to eliminate negative PC breach outcomes. In this line, Morrison and Robinson (1997) have developed a model of PC violation.

f. **PC/PC Breach /PC Violation and Work-related Outcome**

38 out of the 100 milestone papers examine the relationship between PC/PC breach, PC violation and different work-related outcomes. The results show that these constructs relate to both positive and negative work-related outcomes.

g. **Theories used in PC research**

Equity theory of Adams proposed in 1965 was one of the main theoretical framework for the early research done in the area of PC as well as the Social Exchange Theory of Blau. Using the psychological contract theory proposed by Rousseau became popular approach in explaining the antecedent and consequence structure of PC construct. The agency theory and expectancy theory of Vroom were frameworks used in interdisciplinary research.

---Place Table 2 about Here---

**Journal Co-Citation Analysis**

Journal co-citation analysis refers to the bibliometric concept in which one document cites two journals which collectively constitute the intellectual foundation of a certain subject. The 20 most-cited journals can be recognized as the core journals in the PC field (see Fig. 2). As displayed in Fig. 2, each node in the network represents a journal and the link between two
nodes stands for the co-citation relationship between two journals. The top five most authoritative journals in the PC field as follows: *Journal of Applied Psychology, Journal of Organizational Behaviour, Academy of Management Journal, Academy of Management Review* and *Journal of Management*.

Additionally, the map helped us visualize the categorization of journals and their results (refer to Fig. 2). The co-citation analysis of journals enabled us to create a map that places journals with a high number of articles and citations at the center. The "core group" can be identified as Applied Psychology, Organizational Behaviour and the Academy of Management Journal, which are located in the center.

---Place Fig. 2 about Here---

**Reference Analysis**

Reference analysis is a common method to construct an intellectual map of a particular research field. Our sample comprises 73962 references from 687 distinct articles. Table 3 lists the most frequently cited references. The paper with the highest number of citations, written by Cropanzano and Mitchell (2005), has 4087 citations. It evaluates the explanatory power of social exchange theory across various domains. Dirks and Ferrin (2002) found that trust in leadership is a widely discussed topic in organizational literature. Robinson (1996) determined that the relationship between trust and perceived organizational support is multi-dimensional. Mayer and Davis (1999) also stressed the significance of trust in research on perceived organizational support. Morrison and Robinson (1997) created a model that outlines the psychological sense-making processes associated with perceived organizational support violations. Robinson and Rousseau (1994) demonstrated that perceived organizational support violations have a positive effect on turnover and a negative effect on trust, job satisfaction, and intentions to remain. It's worth noting that the top-ranked citations all appeared after the year
indicating that perceived organizational support has received increased attention in recent decades.

---Place Table 3 around Here---

We carried out a co-citation analysis, with cited references as the unit of analysis to gain a better understanding of the theoretical foundation of PCs field. A reduction of the initial set of 1999 documents to those with at least 60 citations resulted in 147 documents. The co-citation map for references to visualize the findings (see Fig. 3). According to Hjørland (2013) the papers that are often cited together are more likely to be in the similar field of research. Hence, the research area of a cluster can be identified by a thorough evaluation of the papers belonging to that cluster. By applying above mentioned techniques, we identified three different clusters: foundations of PC, methodologies and theories of PC and development of PC.

Within these clusters, the five most frequently quoted references are as follows: Morrison and Robinson (1997) (538 citations), Rousseau (1996) (503 citations), Robinson and Rousseau (1994) (486 citations), Blau (1964) (465 citations) and Robinson (1996) (461 citations).

Chronologically, Rousseau (1989) is the first paper published in the first cluster (foundations of PC). This paper introduces the concept of PCs, as well as the process through which it develops, is maintained and violated, in organizational settings. Other studies in this first cluster (foundation of PC) have continued this line of research by examining PC violation from different angles and perspectives, such as psychological sense-making processes (Morrison and Robinson 1997), attitudinal and behavioural outcomes like trust, satisfaction and intentions to stay (Robinson and Rousseau 1994; Robinson 1996) and employer’s failure to fulfil the terms of a PC (Robinson et al., 1994).

The second cluster (methodologies and theories of PC) includes studies from Blau (1964), Podsakoff et al., (2003), Gouldner (1960) and Baron and Kenny (1986). Papers in this cluster
mainly relate to theories (e.g., the social exchange theory) and principles (e.g., the norm of reciprocity) that served as foundations to develop PC theory. Two other leading articles are associated with methodological issues and practices across various domains.

The main studies in the third cluster (development of PC) include Rousseau (1996), and Robinson and Morrison (2003). The first study examines how to effectively restructure PCs in organizational contexts. More specifically, the author elaborates two types of organizational changes (accommodation and transformation) that may affect PCs. Other authors have investigated the factors that may impact employees’ perceptions that their PCs have been breached by their organization (Robinson and Morrison 2003).

---Place Fig. 3 about here---

Topics Related to Psychological Contracts

The authors of the research articles in our sample use 4,432 different keywords to classify their research works. Fig. 4 reports the 120 terms which have been referred to as “keywords” a minimum of 20 times. The sizes of the nodes in the map are used to reflect the weight of each word. The closeness of words as well as lines indicate the strength of their relationship. The top five topics related to PC research are as follows: psychological contract, performance, psychological capital breach, social exchange and commitment.

In our work, Fig. 4 shows time frame terms analysis of the PC publications. The colour of a term indicates the term’s average publication year. The average publication year of a term is calculated by taking the average of the publication years of all the publications that have the term in their titles or abstracts. Terms that are used closer to the year 2022 are shown in yellow, while terms that are used well before 2010 are shown in blue (see Fig. 4).

---Place Fig. 4 around here---
Table 4 summarizes the thematic evolution of research efforts related to PCs for the periods 1989–2000, 2001–2009, and 2010–2022. More specifically, the studies focus on the evolution of research on PC over the past three decades. From 1990 to 2000, the main emphasis was on establishing the concept of PCs and the theories that serve as its foundation. After 2000, researchers started to examine the relationship between PCs and different pro-organizational attitudes and behaviors such as organizational citizenship behavior, job satisfaction, and turnover intention. In more recent years, the focus has shifted to the relationship between PCs and various factors such as leadership, HRM practices, job demands, social support, work-family conflict, job insecurity, and gender. To capture the dynamics of PC research over time, the article uses keyword co-occurrence and VOSviewer to visualize the evolution of keywords. The first time period (1989-1999) was an emerging period for PC research and was surrounded by the concept of organizational commitment. In the second period (1999-2009), PC research was integrated into various disciplines such as HRM and OB. In the third period (2010-2022), the research on PCs has broadened to encompass specific topics such as abusive supervision, organizational citizenship behavior, career studies, innovation, older workers, public organizations, and well-being. The recently emergent high frequency keywords are useful in identifying potential new research avenues such as workplace deviance, leadership, and talent management (See figure 5). Keywords appearing after 2016 received fewer citations, indicating potential future research directions.

---Place Fig. 5 around here---

---Place Table. 4 around here---
Agenda for Future Research

As indicated at the beginning of this paper, the current research aims to understand the trajectory of PC research. Aggregate information for thematic evolution of PC and analyzing of top 100 academic papers helped us to develop potential directions for future research.

Multi-level Applications in PC Research

The research on PCs has largely focused on individual-level analysis, examining its effects on individual outcomes. However, recent studies have begun to understand the application of PCs on multiple levels of analysis, including team and organizational levels. Laulié and Tekleab (2016) have presented a multilevel theory of PCs in teams, highlighting that PCs can occur both at an individual and team level. The adoption of multi-level research designs can broaden our understanding of the antecedents and consequences of PCs. For instance, further research is needed to explore the link between group-level PCs and group outcomes such as performance and satisfaction. Similarly, the relationship between organizational-level factors and team-level PCs also requires more investigation. PCs have been found to improve job satisfaction at the individual level (De Cuyper and De Witte 2006), while team PCs are important for team outcomes such as performance and organizational citizenship behavior (Schreuder et al., 2019). Further research is needed to determine how high-performance work systems (HPWS) can impact organizational performance through the development of collective human capital and team members' perceptions of team PCs.

Contextual Factors in PC Research

Our review shows a lack of cultural diversity in PCs research, with most studies conducted in the US, UK, Australia, and China, leading to single-country bias and limited generalizability. To address this issue, future research should include multiple countries or regions in a single
study design. This will contribute to understanding variations in employer-employee relationships across cultures, as suggested by Wei et al. (2015) and support the existing body of research that calls for more culturally diverse studies (Thomas et al., 2016).

**Theoretical Perspective in PC Research**

Our analysis of 100 prominent articles shows that PC research builds upon social exchange and equity theories. Consequently, we propose that future research focus on other theoretical perspectives, such as social information processing, job demands-resources (JD-R), conservation of resources, organizational justice and signalling. These theories are important to gaining a better understanding of PC fulfilment and breach, and the consequences of these contracts. Despite their significance, there is a limited number of studies using these theories in the PC research. Future studies could pay more attention to these theories which underpin how organizational members perceive and interpret PCs. For instance, the social information processing theory (Salancik and Pfeffer 1978) suggests that social contexts have a significant effect on people’s’ attitudes and behaviours. Other authors have used this theory to analyse PC violation. It has been revealed that job-related gossip mediated the relation between cynicism and PC violation (Kuo et al., 2015). Therefore, future research may exploit this theory to gain insight into how social contexts may shape how employees interpret information, influencing the PCs, which in turn can lead to desired employee attitudes and behaviours.

**Adopting a Dynamic Perspective to PCs**

Researchers recognize that PCs are dynamic concepts, where they are formed, maintained and changed over time (Rousseau et al., 2018). In other words, this approach has emphasized the dynamic nature of PC processes. We encourage future research to explore the roles of different organizational and individual factors in predicting PCs in their creation, maintenance,
renegotiation stages. For example, social networks and social information processing can be used as antecedents to this model. More specifically, in the process of PC repair, organizational members may gather information from same-status employees, whereas during PC process renewal, they may seek out information from higher-status employees. In addition, social information may affect inter-phase processes of PCs.

**Adopting Alternative Methodology to study PCs**

Our review revealed that majority of the studies employed a quantitative survey methodology in measuring PC/PC breach and PC fulfilment. Future research should consider utilizing alternative methodologies to obtain a broader understanding of how these concepts develop and happen over time and their effects on employees’ work-related attitudes and behaviours. In addition to utilizing qualitative interviews to assess PC breach and fulfilment, scholars may rely on observational techniques to assess levels of PC within a team or dyadic context. This can be achieved via comprehensively looking at the verbal and non-verbal communications between organizational members.

**Emerging research topics in PCs**

One of the potential directions for future research could be the role of PC in promoting employee engagement and intrinsic motivation, and its impact on well-being. It would also be valuable to study the effects of PC breaches and their consequences for both the individual employee and the organization as a whole. Overall, further research in this area could provide a deeper understanding of the relationship between well-being and psychological contract, and inform the development of effective strategies to enhance both. In addition, future research on the relationship between talent management and PC can deepen our understanding of the
mechanisms through which organizations can develop and retain talented employees, and the impact of these practices on the psychological contract.

**Dynamics of PCs Violation**

One the area for future research is PC violation which include exploring the possibility of recovery and the mechanisms involved in the recovery process, the role of time in the recovery process, and the most appropriate methodologies to study the recovery process. Additionally, research could examine if breach/violation can lead to growth and flourishing of an individual's PC, the impact of organizational actions on this outcome, the influence of individual differences, and the role of context in the recovery and/or thriving process.

**Limitations**

This research has several limitations that should be highlighted. Our objective, in this work, was to provide general audiences and scholars with insight into the landscape of the PC field. There are other aspects of the PC field which could be explored in future studies, such as contextual factors and PC research evolution, economic and societal environment change, which occurred over the past three decades.

**Conclusion and implications**

In this review paper, we have evaluated the research trends in the field of PC from 1989 to 2022. In addition, review of 100 most prominent papers on PC research topic. Based on our analysis, we have proposed some directions for future research.

This study contributes to PC research in the following ways. First, the current paper consolidates and integrates existing research done on PC topic until 2022, and thus offering an up-to-date overview of this significant research area. Based on the results, we find that the topic
of PC has been considerable researched with increasing interest during the last two decades. The most influential journals are the International Journal of Human Resource Management, the Journal of Organizational Behaviour and the Personnel review. This outcome can be explained by the fact that these journals accept a greater number of manuscripts from different fields of business studies.

Second, we supplement existing reviews by performing several co-citation analyses to present the valuable contribution of the authors, references and journals in the development of PC research. For instance, author co-citation analysis revealed that the leading scholars in our field of inquire are Denise M. Rousseau, Sandra L. Robinson and William H. Turnley. These authors are affiliated to the USA & Canada and publish in the research area of HRM and OB. The scholars with the highest h-index are Denise M. Rousseau, Simon Restubog and Hans De Witte. Next, the journal co-citation analysis showed that the knowledge base of PC research is concentrated on the journals including: Journal of Applied Psychology, Academy of Management Journal, Journal of Organizational Behaviour, Academy of Management Review and Journal of Management, these journals comprise broad interdisciplinary studies of business research. It can be concluded that PC research topic has attracted attention from both scholars and practitioners.

Third, our work relies on rigorous bibliometric methods which help us to more systematically evaluate the variety of research topics and theoretical roots within the PC field. The findings of reference analysis indicated the existence of core reference clusters that have their roots in HRM and OB studies. More specifically, three key clusters were identified: foundations of PC, methodologies and theories of PC and development of PC.

Fourth, our analyses enable us to visualize how the PC field has evolved and to help map out a future research agenda. This discusses key trends related to PC research and identifies key research areas that deserve more work. Notably, after having analysed 100 prominent
papers related to the field and we have identified six research areas: review studies, determinants of PC/PC breach/PC violation, development of PCs, PC Interdisciplinary, PC breach/PC violation and PC/ PC breach/PC violation and work-related outcomes. Relying on this data, we exhibit how the PC research landscape has emerged and developed over three decades. Moreover, this technique shown as main theoretical frameworks used in this research area as well as evolution of those theories. Future research directions highlighted in the paper will be useful for scholars investigating this field as well as for young career researchers only started to work on this topic.

This study has also several practical implications. First, this review enables HRM practitioners to gain better understanding of balanced PC which is required condition for a continuing, harmonious relationship between the employees and their organizations. In addition, practitioners should be aware that PC is multi-level construct (individual and team). For example, HR professionals may focus on developing HPWS which may result in shared team psychological contract fulfilment. Furthermore, managers may devote considerable resources and energy to develop quality of relationships with all team members to promote employees to have consistent interpretation of the actions of the manager/organization. Second practical implication is related to contextual factors such as cultural value which plays essential role in how organizational members view or perceive their work. Therefore, understanding the ways in which culture can facilitate employee reactions to the PC may enable managers to deal with perceived anomalies in training, performance appraisal and the employment relationship, as perceived by the organizational members. Third, the findings demonstrated that PCs are dynamic concepts and therefore should be carefully managed over time. More specifically, HRM professionals should focus on balancing HRM practices to better predict PCs in their creation, maintenance, renegotiation stages.
References


FIGURES

Fig. 1 Author co-citation network between 1989 –2022.

Note. The author co-citation network displays only the most co-cited authors. We didn’t include Nathan Podsakoff and Peter M. Blau works due to the fact that these studies are mainly theoretical and methodological papers.

Fig. 2. Journal co-citation network of PC research during 1989 –2022
Fig. 3. Map of cited references.

![Map of cited references](image)

Fig. 4. Co-occurrence of keywords – map with time information.

![Co-occurrence of keywords](image)
Fig. 5. The time-zone visualization in PC research during 1989 –2022.

Note. The time-zone visualization shows only the keywords with highest co-occurrence frequency. The node size is proportional to the total and accumulated co-occurrence frequencies of keywords.
### Tables

Table 1. Most productive authors.

Note: The left side is ranked by h-index and the right side is ranked by citations.

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Table 2. Analysis of 100 prominent papers during 1989-2022

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<tr>
<th>PC Themes</th>
<th>Number of articles</th>
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<td>Review studies</td>
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<td>Cullinane &amp; Dundon (2006)</td>
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<td>Gelfand, Erez &amp; Aycan (2007)</td>
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<td>Scandura and Lankau (1997)</td>
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<td>(Rousseau, 1995), Social Exchange Theory, Leader-member exchange theory (Graen &amp; Uhl-Bien), discrepancy theory (Locke, 1976), POS Theory, Lazarus’s (1991) cognitive-motivational relational theory</td>
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<th>Development of PC</th>
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<td>Prospect theory (Kahnemmann, Knetsch, &amp; Thaler, 1986) and expectancy theory (Vroom, 1964)</td>
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Schalk & Roe (2007)  
Equity theory (Adams, 1965), self-regulation theory (Bandura, 1991), control theory (Campion & Lord, 1982), goal-setting theory (Locke, & Latham & Erez, 1988)
theory of planned behaviour


Turnley & Feldman (1999)

Coyle-Shapiro & Kessler (2000) Social Exchange Theory, Equity theory


Table 3. Most cited papers

<table>
<thead>
<tr>
<th>Authors</th>
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<td>Cropanzano, R (2005)</td>
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<td>Colquitt JA (2007)</td>
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### Table 4. PC research thematic evolution

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