A Bibliometric Analysis of Employee Performance in the Context of Cognitive Dissonance Using Visualizing Networks

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Abstract

INTRODUCTION: This study was designed to give a comprehensively updated bibliometric summary of employee performance when faced with cognitive dissonance in light of recent imperatives and expanding scholarly interest.

OBJECTIVE: This research provided a deep knowledge of references, cited sources, countries through network map, relevant sources map with table, relevant authors map with table, frequent keywords used by authors network map, citations per year graph, and co-occurrence of network with networking map.

METHOD: In the study, the Scopus database was used to analyse large data. Biblioshiny software was also used for the analysis and verified using a VOS viewer. A mixed (combination of several) techniques is the main focus of the methodological procedure. 400 Scopus-indexed articles and 5 conference papers have been taken to prepare this bibliometrics review with the help of biblioshiny and Vos viewer software.

RESULT: The results reveal that employee performance depends on their beliefs and attitudes. These two factors fall under cognitive dissonance theory (CDT).

CONCLUSION: It is also fruitful for organizations to study CDT theory for organizational development and employee performance growth.

Keywords: Cognitive dissonance, employee performance, CDT, Visualizing Networks

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1. Introduction

The reality of harmony is revealed through research on cognitive dissonance. Festinger proposed in 1957 that there is a system in each person's mind that generates an unsettling sense of dissonance, or a lack of harmony. Festinger presented dissonance theory and addressed it as a cognitive consistency theory. Festinger and Carlsmith's 1959 theory states, that dissonance should occur whenever an individual exhibits inconsistent behaviour with their attitudes. Social psychology was dominated by cognitive dissonance theory and research from the 1950s to the 1970s. The cognitive dissonance hypothesis states that dissonance starts to emerge when a person notices a difference between two or more of their cognitions. The idea revolutionized how psychologists saw psychological processes, particularly how incentives influence the attitudes and behaviour of employees as well as how motivation and behaviour impact perception and cognition. Numerous studies have refuted the modifications of the theory of dissonance and supported Festinger's fundamental definition of dissonance. By the concept of the cognitive dissonance hypothesis, people would want to reduce discord in their surroundings since it would make them feel distressed and unsatisfied with a certain scenario and maybe even their work.[26]. Emphasis on the
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significance of the cognitive dissonance that people go through when they are forced to undertake a task that they do not want to accomplish. Three separate internalization processes, each of which is characterized by phases of reflection and cognitive reframing, are set off by the nature of this contradiction. Festinger's cognitive dissonance theory (CDT), which explains and predicts how discomfort might motivate people to modify their attitudes and behaviours in managerial decision-making and the larger organizational environment, has been widely used in management literature. According to the idea of cognitive dissonance, we anticipate that employees’ perceptions of the management control system as a danger will have an impact on both purposeful ignorance and workplace deviation [21] and is harmful to employee performance and organizational performance. In management and organizational studies on decision-making, strategy, organizational transformation, social movements, and institutions, cognitive conceptions and framing processes are considered as a framework for action [7]. Employees frequently experience a difference between their beliefs and behaviours, which causes them to feel distressed and affects their decision-making and work behaviours. Employees may experience cognitive dissonance when joining a new company.

2. Literature Review

The notion of cognitive dissonance addresses the problem of attitude transformation [37]. People's understanding of their behaviour, attitudes, and surroundings is comprised of cognitive aspects [35]. The management discipline has embraced and exploited cognitive dissonance to explain several issues [35]. Some researchers proposed that the consequences were caused by non-motivational cognitive processes or issues with impression management [12]. The majority of the literature on expatriate management has fundamentally defined modification as these desired stages that forecast final expatriate outcomes like the work performance of employees in the organization [23]. The idea of achievement, progress, or task completion comes up when the term "performance" is used [26]. Less discord in the workplace would translate into improved job satisfaction for employees [32]. Because of the way this dissonance manifests, three different internalization processes are brought on by phases of reflection and cognitive reframing [15]. Among the most significant and prolific social psychology theories is Leon Festinger's cognitive dissonance hypothesis, which has given rise to a large number of research investigations [36]. The first CDT test by Festinger and Carlsmith has immediate ramifications for the study of remuneration and the application of incentives to influence employee attitudes [16]. According to Festinger's (1954, 1957) theory of cognitive dissonance, which holds that we experience anxiety (dissonance) when we realize we must act in a way that contradicts our beliefs (cognitions), the assumption is that surface acting has an adverse connection to job satisfaction while deep acting has a beneficial connection to it [7]. The link between emotional regulation techniques and affective and behavioural results based on the idea of cognitive dissonance may be significantly influenced by the psychological processes of the employees [7]. Employees who follow their moral convictions at work may become less productive as a result of cognitive dissonance, which may be seen as stress element that adversely impacts job output [37]. A motivating situation involves cognitive dissonance [38]. Innovations in psychology and technology provide a variety of alternatives for organizations to pragmatically and efficiently integrate sustainability into their day-to-day operations without having to alter employee behaviour [27].
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Title</th>
<th>Author</th>
<th>Journal Name</th>
<th>Year</th>
<th>weblink</th>
<th>Methodology</th>
<th>Advantages</th>
<th>Disadvantages/ Gaps</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Making sense of (mis)matched frames of reference: A dynamic cognitive theory of (in)stability in HR practices</td>
<td>John W. Budd, Dionne Pohler, Wei Huang</td>
<td>Industrial Relations</td>
<td>2022</td>
<td>10.1111/iri rel.12275</td>
<td>purposive sampling</td>
<td>Illustrating the applicability and usefulness of cognitive frame analysis to the employment relationship.</td>
<td>The author hopes that they inspire other researchers to extend the framework.</td>
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<tr>
<td>2</td>
<td>How to Prevent Stress in the Workplace by Emotional Regulation? The Relationship Between Compulsory Citizen Behavior, Job Engagement, and Job Performance</td>
<td>Hung, Tsang Kai Wang, Chih Hung, Tian, Mu Lin, Ming Liu, Wen Hsiu</td>
<td>Sage Open</td>
<td>2022</td>
<td>10.1177/2 15824402 21105483</td>
<td>purposive sampling</td>
<td>The findings indicated that job engagement mediates the connection between mandatory citizenship behaviour and job performance, that mandatory citizenship behaviour directly causes the relevantly negative effect on employees' performance, and that emotion regulation moderates the indirect effect of mandatory citizenship behaviour on job performance via job engagement.</td>
<td>More covariates or control factors may be taken into account in future research.</td>
</tr>
<tr>
<td>3</td>
<td>Cognitive Dissonance and Public Compliance, and Their Impact on Business Performance in Hotel Industry</td>
<td>Xi, Wen Baynumino, Nigora Zhang, Yi Wei Xu, Shi Nyu</td>
<td>Sustainability (Switzerland)</td>
<td>2022</td>
<td>10.3390/su1422149 07</td>
<td>Tool-questionnaire, non-probability sampling techniques</td>
<td>Individual employees' cognitive dissonance has little bearing on the company's success, however public conformity has an impact on financial as well as non-financial results. Before making a strategic choice, it would be preferable for managers to confirm that all group members agree with it.</td>
<td>Instead of choosing a business strategy, organisational culture type, and management innovation activity, future research could examine the same relationship using corporate-level, business-level, and functional-level strategic decision-making levels.</td>
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<td>S. No.</td>
<td>Title</td>
<td>Author</td>
<td>Journal Name</td>
<td>Year</td>
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<td>Methodology</td>
<td>Advantages</td>
<td>Disadvantages/ Gaps</td>
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<td>4</td>
<td>The Influence of Negative Workplace Gossip on Knowledge Sharing: Insight from the Cognitive Dissonance Perspective</td>
<td>Zou, Xiaolei; Chen, Xiaoxi; Fengling; Luo, Chuxin; Liu, Hongyan</td>
<td>Sustainability (Switzerland)</td>
<td>2020</td>
<td>10.3390/SU12083282</td>
<td>questionnaire method</td>
<td>This study examined the moderating role of self-efficacy and the mediating role of organisational trust on harmful workplace rumours. It did this from the theoretical standpoint of cognitive dissonance theory.</td>
<td>Future research is anticipated to conduct a cross-level study by taking into account organisational factors, including organisational structure, team culture, technology factors, and knowledge-intensive organisations, which also have an impact on the willingness of knowledge sharing for the organisational benefit or to not share for pro-self-advantages.</td>
</tr>
<tr>
<td>5</td>
<td>Developmental HRM, employee well-being and performance: The moderating role of developing leadership</td>
<td>Marescaux, Elise; De Winne, Sophie; Forrier, Anneleen</td>
<td>European Management Review</td>
<td>2019</td>
<td>10.1111/e mre.12168</td>
<td>quantitative survey</td>
<td>In addition to conventional HR procedures, the HRM system must also take into consideration line managers' behaviours in order to effectively manage employee performance and well-being. This is based on the social exchange theory and the cognitive dissonance theory.</td>
<td>For future research add social well-being as an additional dimension in the study.</td>
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<tr>
<td>6</td>
<td>Performance measurement, cognitive dissonance and coping strategies: exploring individual responses to NPM-inspired output control</td>
<td>Berend van der Kolk, Wesley Kaufmann</td>
<td>Journal of Management Control</td>
<td>2018</td>
<td>10.1007/s 00187-018-0265-1</td>
<td>explorative qualitative study, interview analysis</td>
<td>capable of giving a quick overview of how public servants could deal with cognitive dissonance</td>
<td>The effects of hearing discordant information on a person's decision-making process can be examined in future study using an experimental methodology.</td>
</tr>
<tr>
<td>S. No.</td>
<td>Title</td>
<td>Author</td>
<td>Journal Name</td>
<td>Year</td>
<td>weblink</td>
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<td>8</td>
<td>Job demands, job control, psychological climate, and job satisfaction: A cognitive dissonance perspective</td>
<td>Karanika-Murray, Maria Michaelides, George Wood, Stephen J.</td>
<td>Journal of Organizational Effectiveness</td>
<td>2017</td>
<td>10.1108/JOEPP-02-2017-0012</td>
<td>explorative qualitative research</td>
<td>Our research indicates that it is important to pay attention to the circumstances in which employment are situated. Not only does psychological environment affect job satisfaction, but it also influences how job perceptions affect job satisfaction.</td>
<td>This study has shown that there is value in paying attention to the environment in which occupations are situated and has provided a mechanism to connect the domains of work design and psychological climate.</td>
</tr>
<tr>
<td>9</td>
<td>Dimensions of Cognitive Dissonance and the Level of Job Satisfaction among Counsellors in Delta and Edo States, Nigeria</td>
<td>Oduh, William Akporobaro</td>
<td>Journal of Education and Practice</td>
<td>2016</td>
<td><a href="http://www.iiste.org">www.iiste.org</a></td>
<td>correlation method</td>
<td>The respondents named the following as the dimensions of job satisfaction experienced by the Nigerian counsellor: commitment, loyalty, involvement, performance, and the desire to quit; 3. It was discovered that the Nigerian counsellor was satisfied with his or her job. 4. It was shown that the dimensions of cognitive dissonance are substantially associated to the degree of satisfaction of counsellors at work. The study revealed the percentage of the counsellors' level of satisfaction on each of the dimensions evaluated.</td>
<td>One notion of attitude transformation is cognitive dissonance. In order to deal with the reality of their position as counsellors in the school system while upholding professional ethics, it was advised by the research that counsellors should make use of the techniques offered by the theory.</td>
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</table>
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2.1. Research Software

For the extraction of data, it is significant to use appropriate sources for data, so for this study Scopus database is used with two software(s) for bibliometrics that are Vos viewer and Biblioshiny. These two software(s) convert the Scopus data file into graphs, networks and other pictorial representations.

2.2. Research Questions

Q. Does cognitive dissonance affect employee performance?

3. Analysis

3.1. Three Field Plot

![Three field plot](source)

Source: Biblioshiny

3.2. Most Relevant Sources

In the three-field plot analysis at the left-CR(References)s of the articles which is used in this bibliometrics, middle-SO (Cited Sources) and right-CO (countries). This is the top ten data extracted from R software. The left side in references shows that Festinger is one of the biggest references of cognitive dissonance because cognitive dissonance theory was launched by him in 1957, in the middle of the plot Festinger is the most popular cite source, and countries like the USA, Australia, Indonesia, UK embrace the study of cognitive dissonance for understanding the performance of employees. India is also falling in the top ten countries in it but in a very smaller ratio as seen in Fig. 2.

![Relevant Data Source](source)

Source: Biblioshiny

Table 1. Relevant sources of data

<table>
<thead>
<tr>
<th>Sources</th>
<th>No. of Articles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality - Access to Success</td>
<td>18</td>
</tr>
<tr>
<td>Sustainability (Switzerland)</td>
<td>16</td>
</tr>
<tr>
<td>Plos one</td>
<td>13</td>
</tr>
<tr>
<td>Management Science Letters</td>
<td>12</td>
</tr>
<tr>
<td>Journal of Asian Finance, Economics and Business</td>
<td>10</td>
</tr>
<tr>
<td>International Journal of Recent Technology and Engineering</td>
<td>8</td>
</tr>
<tr>
<td>Corporate Governance and Organizational Behavior Review</td>
<td>6</td>
</tr>
<tr>
<td>Cogent Business and Management</td>
<td>5</td>
</tr>
<tr>
<td>Polish Journal of Management Studies</td>
<td>5</td>
</tr>
<tr>
<td>Problems and Perspectives in Management</td>
<td>5</td>
</tr>
</tbody>
</table>

According to fig.3 and table 1, bibliometric data is extracted from top ten sources which are the most popular and reputed in table it is clearly mentioned big number of articles are taken from good journals like Quality-Access to
Success, Sustainability, PLOS ONE and many more. Through this data authenticity of bibliometrics is increased because all the journals are from Scopus indexed only.

3.3. Relevant Authors

Table 2. Exported data from R of the top ten relevant authors

<table>
<thead>
<tr>
<th>Authors</th>
<th>Articles</th>
<th>Articles Fractionalized</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLALI S</td>
<td>1</td>
<td>0.08</td>
</tr>
<tr>
<td>BAULAC M</td>
<td>1</td>
<td>0.08</td>
</tr>
<tr>
<td>DUBOIS B</td>
<td>1</td>
<td>0.08</td>
</tr>
<tr>
<td>EL KAROUI I</td>
<td>1</td>
<td>0.08</td>
</tr>
<tr>
<td>EPELBAUM S</td>
<td>1</td>
<td>0.08</td>
</tr>
<tr>
<td>HASBOUN D</td>
<td>1</td>
<td>0.08</td>
</tr>
<tr>
<td>LEHONGRE K</td>
<td>1</td>
<td>0.08</td>
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<tr>
<td>MICHON A</td>
<td>1</td>
<td>0.08</td>
</tr>
<tr>
<td>NAVARRO V</td>
<td>1</td>
<td>0.08</td>
</tr>
<tr>
<td>BEGLEY T</td>
<td>1</td>
<td>0.10</td>
</tr>
</tbody>
</table>

In fig.4 and Table 2, it mentions that this the data of the top ten authors which is extracted from R. With the use of CDT (cognitive dissonance theory), these writers elucidate how cognitive dissonance affects employee performance.

3.4. Average citations per year

This graph shows year wise citation of the articles, according to the graph’s citations are at peak between 2001to 2004 and furthermore citations are also reflected ups and downs in the graph.

3.5. Co-occurrence of Network

As networking with the Vos viewer indicates that cognitive dissonance and employee performance have large circles because these two are connected with many factors which are responsible for an employee's performance in the organization. So, a study on cognitive dissonance always impacts the performance of the employees positively as well as negatively.

3.6. Most frequent words/ Keywords

This indicates most of the keywords used in the article by the authors are cognitive dissonance, employee performance as shown with the big circles and many more which are in small circles directing those other keywords are directly as well as indirectly connected with each other for the evaluating the effect the employee performance in the organization.
4. Conclusion and Discussion

Deep insights into academia are provided through bibliometric analysis. Analyzing employee’s performance in the context of cognitive dissonance is important for each and every kind of organization for their growth and development. So, for understanding the concept of employee performance and cognitive dissonance, this bibliometrics is helpful in many ways and also opens the new door for researchers to research more on this concept and it will definitely give fruitful results to the organization in practical situations also. In these bibliometrics two software programs are used which are Biblioshiny and Vos viewer to analyse the results with three field plot figures for giving deep insight on references, cited sources and countries analysis, and other figures and graphs like sources of journal, author analysis, citations per year, keyword used by the authors also with graphical representation, networking, formation of tables etc. In conclusion, employee performance is completely reliant on the attitude and belief of the employee, so for understanding this attitude and belief, CDT theory is used which is given by Festinger 1957. Cognitive dissonance in employees arrives due to many reasons like emerging new techniques, new strategies or policies of organization, innovations, lack of robotic knowledge in employees and many more.

References


