

Career Decision-Making (1991- 2018): A Systematic Literature Review and Prospect for Future Research

Ms. Rachna K. Gedam^{1*}, Dr. Nikhil K. Mehta², Dr. (Ms) Hema A. Date³

ABSTRACT

The present paper brings a dynamic and systematic literature review (SLR) on career decision-making (CDM) with the purpose to a) to review and analyze the academic literature on career decision-making, conduct a content analysis for the purpose of classification and provide a comprehensive bibliography b) to categorise the articles according to journals, authors, and year of publication c) develop a classification of the research articles on the basis of research methods mostly conceptual, empirical or case study. In addition, this paper contributes an overview of 127 peer-reviewed journal articles on CDM from 1991 to the end of 2018. Moreover, the study contributes to identifying the various untapped areas for further research in terms of industry, country of study, research methods, type of study, by providing propositions that guide upcoming research.

Keywords: Career Decision Making, Literature, Review

Decisions are among the most important activities people perform in their lives because they are compelled to make decisions persistently (Cascio et al., 2013). Among all the decisions people make in their lives, those related to their career are expected to be the most important (Jung, 2012), as such decisions will have implications for their future, and ability to live independently. According to Betz (1992), career decision making is central to career development. Everyone must make career-related decisions in life. Such decisions have a significant effect on one's lifestyle, economic and social status, and place in society.

Career decision-making can be defined as a process that describe or explains the choices that a person makes when selecting a particular career. It also helps to identify different factors involved in a person's career decision-making and provides an understanding of the way these factors have an impact on their career decisions and choices (Sharf 2002). Career decisions are described as "choices individuals make about occupations, education, training and employment" (Sampson, Reardon, Peterson, & Lenz, 2004). Researchers found that career decision-making ability was related to their ability to make a career choice (Taylor and

¹ Asst. Professor, Research Fellow (NITIE), Jamia MilliaIslamia (A Central University), New Delhi – 25, India.

² Associate Professor, NITIE, Mumbai, India

³ Professor, NITIE, Mumbai, India

*Responding Author

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Betz, 1983) People ought to have a certain level of confidence in making career-related decisions if they are to successfully complete the tasks associated with making a career choice and committing to their chosen career. According to (Kerka,2000; Bandura, Barbaranelli, Caprara, &Pastorelli, 2001; Hewitt , 2010) career choice is influenced by multiple factors including personality, interests, self concept, cultural identity, globalization, socialization, role model, social support, available resources such as information and financial support, social contacts and educational attainment.

Career decisions directly influence well-being in terms of self-esteem, job performance, life satisfaction, and income (Slaten& Baskin, 2014).Career decision making ranks among the most-studied concepts in the career literature (Kelly & Lee, 2002). In several theoretical models on the career decision-making process (Gati& Asher, 2001; Van Esbroeck, Tibos, &Zaman, 2005), stated that career decision-making process has important consequences for implementing the career decision and it depends on the way individuals cope with decisional tasks (Germeijs and Verschueren, 2006) differentiated six tasks as central part of the career decision making process i.e. orientation to choice, self-exploration, broad exploration of the environment, in-depth exploration of the environment, decisional status, and commitment.

Career decisions can potentially have extensive repercussions, as the failure to plan career decisions could adversely affect vocational future, educational goals, and psychological health (Ball, Mann, &Stamm, 1994). Moreover, inability in making career decisions or making the incorrect decisions can be detrimental to the individual and society at large, as those failing to undertake appropriate decisions may ultimately require outside assistance to cope with their dissatisfactory career situation, or they must retrain to enter a more suitable career.

The present paper is expected to provide the most recent research done in CDM domain and explain the degree of understanding achieved in different relevant areas. The objective of the paper is threefold. The first purpose to develop a methodological framework for conducting an extensive literature study on worldwide phenomenon based on a wide range of papers published over a long time span across different disciplines. The second objective is to use this framework to gain an understanding of the current state of the CDM field across established disciplines. The third objective is, based on the literature review, to conduct a content analysis for the purpose of classification and provide a comprehensive bibliography for further research in the various areas remained untapped.

Career decision making has always been the topic of interest for researchers due to the ever-changing business environment leading to changes in career decision-making strategies of an individual. However, despite its importance in today's time, only one comprehensive literature review has been conducted in the field of CDM. Nevertheless, there is a need to carrying out this kind of research, as it serves as a roadmap for both academicians and practitioners for future research. This paper aims to take stock of the situation by reviewing the academic literature and to synthesize the existing research findings to provide a clear overview. It will also reflect the current state and direction of research topics and should be of interest to many.

None of the previously existing literature reviews include publications published after 1998, which shows the CDM field with a knowledge gap about literature review publications published from 1998 onwards. Additionally, none of the reviews provide an overview of the

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total number of academic journal publications regardless of and/or across research disciplines, leaving a knowledge gap about the entire career development field. The present paper review sets out to fill this gap and aims at providing an overview of the CDM field by analyzing CDM peer-reviewed journal publications from 1991 to 2018. In the present review the main aim is to address the following questions and find the answer:

1. How many peer-reviewed research articles have been published each year and how has the field evolved with time?
2. Which journals have published CDM peer-reviewed publications and which have published the highest number of publications?
3. Which authors have contributed the most?
4. Which categories of articles have contributed most to the CDM field?
5. Which country has the majority of the studies on CDM?
6. Which methods have been used?
7. Is it fair to state that the CDM field has matured?

The methodology used for conducting the literature review study, making it possible to answer and address the above questions, will be presented in the following.

REVIEW METHODOLOGY AND DATA COLLECTION

In order to seek an overview of a research field and answer the questions above, a planned research methodology is needed. The methodology is divided into two phases (Cumbie et al., 2005). The literature review was carried out in line with these two phases: First phase – selection and accumulation of a journal publication pool and second phase – classification of the publications by topic studied and methods used in the research, publication in each journal, etc.

To start with in the first phase five online databases were selected to search papers on the basis of the key words to review the literature on “career decision making” for the period ranging from the year 1991 to 2018. We entered the search phrases “Career Decision Making” in the article title search. The use of the term “Career Decision Making” is widely acknowledged in scholarly literature, which supports the choice. The databases were searched for the keywords in the title that originally resulted in approximately 900 research papers. Thereafter, the full text of each research paper was further reviewed to eliminate those that were not actually related to CDM. A detailed review of the articles finally yielded 127 research papers related to CDM and sourced from 34 peer-reviewed and refereed journal and conference proceeding which were found relevant with career decision making as the main research topic.

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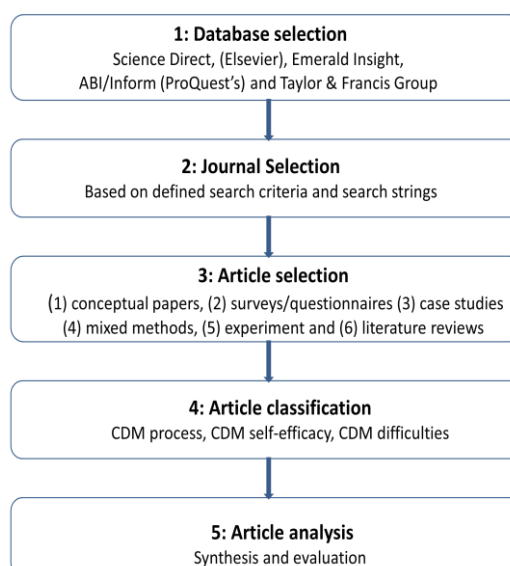


Fig 1: Source: According to Crossan & Apaydin (2010) and Kilubi (2015).

This current paper presents a review of CDM research published in academic research journals between 1991 and 2018. Journal articles were sourced from the following databases:

- Science Direct (Elsevier)
- Taylor & Francis Group
- Emerald Insight
- Springer Link
- ABI/Inform Global (ProQuest)

Master's and doctoral dissertations, textbook and unpublished working papers were excluded, as both academics and practitioners primarily use journals to obtain information and disseminate new findings designating journals as the highest level of research (Nord and Nord, 1995; Ngai, 2005). The search after eliminating non-relevant papers finally yielded 127 papers. In this way the current study is, therefore, a census study as each unit of the defined population will be reviewed. Therefore, the findings can be completely generalized to the defined population (Malhotra, 2004). However, the findings cannot be generalized to the larger collection of CDM literature. Further, the online databases are observing a surge in research publications with respect to CDM and, therefore, the findings will not hold valid in the times to come.

In the second phase, based on the above questions one wants to deal with in the review, one has to develop a structure to use in the analysis of the publications. To make a comprehensive literature study of a huge amount of publications, the framework includes two different types of analysis, one being strict head counts and the other being the classification of papers. The head counts are simply a matter of counting the research papers, e.g. how many different journals have published papers about the phenomenon in question, how many different publications have been published per year and how many different authors have contributed to the field.

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To be able to perform a classification analysis one needs first of all the categorization according to which the papers will be classified. The content of this categorization will depend on the questions one wants to address during the review. After the development of the categories, the classification process of the papers can begin. During the classification process, different analysis approaches can be used, e.g. a classification system that includes a search for regularity and standards, as well as topics encompassed by the data (Bogdan and Biklen, 1982), the selected research articles, are subjected to content analysis for the purpose of classification. Content analysis has been explained as a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding. E.g. open coding, axial coding or selective coding (Glaser and Strauss, 1967; Strauss and Corbin, 1994; Webster and Watson, 2002; Weber, 1990). Another researcher provides a broad definition of content analysis as, “any technique for making inferences by objectively and systematically identifying specified characteristics of messages” (Holsti, 1969). Content analysis using a constant comparative method (Cavana et al., 2001). In the content analysis, the researcher makes various decisions about how the paper is to be comprehended. Content analysis usually uses smaller units of analysis such as paragraphs, sentences, words and so forth (Unerman, 2000). However, entire articles can also be used as the unit of analysis in content analysis (Stock, 1997). In the present study, the unit of analysis is the full-text research paper.

Inter-rater reliability and categorization

The authors initially scanned the keyword list and abstracts of allotted articles and classified them under three categories. Further to ensure robustness, the three authors, who all have practical and academic experience in the area, acted as reviewers and classified a selected sample of articles and to ensure high inter-rater reliability the results were compared and discussed till a consensus was achieved. After the classification process, the whole group discussed articles which individual reviewers were uncertain until an agreement was reached. On the basis of content analysis the review papers were classified into the four categories i.e.:

1. Career decision making – as a process
2. Career decision-making difficulties and
3. Career decision-making self-efficacy

Each of the above is divided into sub-categories into the following nine approximately equal time periods:

- (1) *Period I*. Year 1991-1993 (three years).
- (2) *Period II*. Year 1994-1996 (three years).
- (3) *Period III*. Year 1997-1999 (three years).
- (4) *Period IV* Year 2000-2002 (three years).
- (5) *Period V* Year 2003-2005 (three years).
- (6) *Period VI* Year 2006-2008 (three years).
- (7) *Period VII* Year 2009-2011 (three years).
- (8) *Period VIII* Year 2012-2014 (three years).
- (9) *Period IX* Year 2015-2018 (four years).

RESULTS AND FINDINGS

In this section the findings from the literature study are presented, and to answer the questions formulated in section 1: how many peer-reviewed publications have been published every year, how has the field evolved, which journals have published CDM peer-reviewed publications and which journal has published the highest number of publications?

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The categorisation of research articles period- wise:

The period-wise contribution of research articles across the nine different time periods is shown in Figure 2 below. As seen in the figure, of the 127 research articles that were published, in 1991-1993 very few 0.79 percent research papers were published. Moving on to the next period viz. 1994-1996, a sizeable 3.94 percent were published in this period. In the third, there are sufficient publication 10.24 percent papers. It is observed that there is a slight decline in the publication during the period of 2000-2002 and 2006-2008 with 7.87 percent and 8.66 percent publications. But in recent time, the research in the area of CDM has been on the rise and has sharply increased from 2009 to 2018.

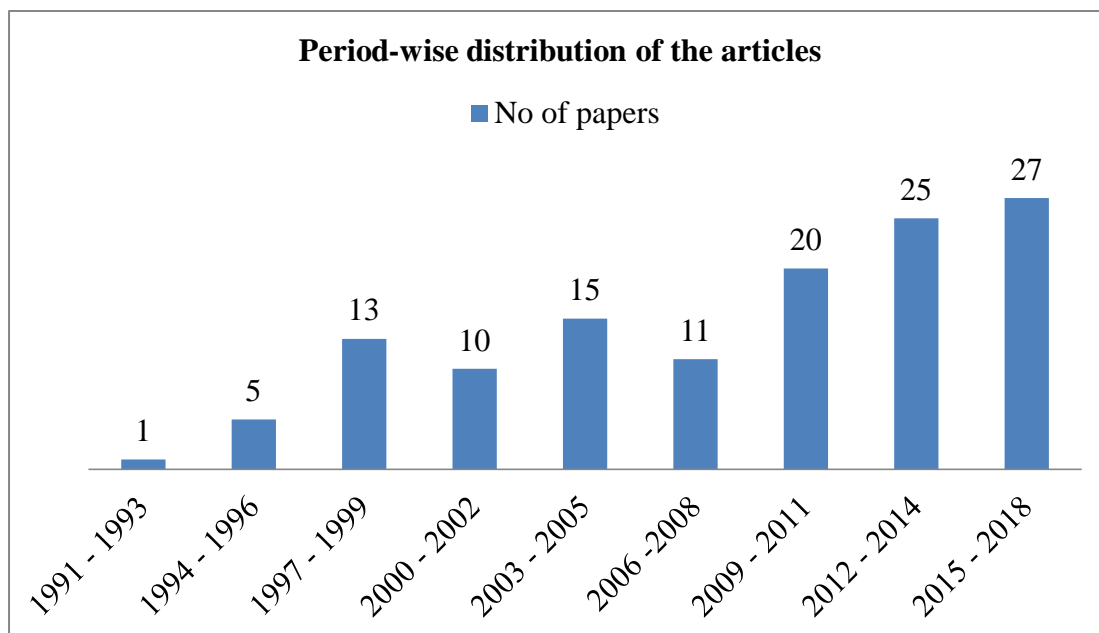


Fig 2 - Period-wise distribution of the research articles

Categorization of reviewed literature

The table given below provides a comprehensive bibliography of research papers related to the three earlier identified categories. This is a helpful resource for both academics and practitioners searching for CDM papers in a specific area.

Category	Bibliography
Career decision making – as a process	Paul Greenbank (2011), PhilHodkinson (1995), Paul Greenbank and Sue Hepworth (2008), Cohen and Benjamin (2003), Wei-Cheng and Mau(1999), Richard W. Bradley and Grace Ann Mims (1992), Thomas S. Krieshok <i>et al.</i> (2009)
Career decision-making difficulties	Yun-Jeong Shin and Kevin Kelly (2015), ItamarGati and Tamar Amir (2010), Yaoshan I. Li <i>et al.</i> (2017), ItamarGati and Nimrod Levin (2014), Peter A. Creed <i>et al.</i> (2009), Di Fabio <i>et al.</i> (2012), Mau and J. Wei-Cheng (2004), OlímpioPaixão and VítorGamboa (2017), FerideBacanli (2016), Majjela and Gerard (2005), Natasha McLennan and Nancy Arthur (1999), YahyaHijaziet <i>al.</i> (2004), ItamarGati and NoaSaka (2001), ItamarGati and TaliKleiman (2004), ChunnaHouet <i>al.</i> (2013), Thomas S. Krieshok (1998),

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Category	Bibliography
Career decision-making self-efficacy	<p>Sangganjanavanichet <i>et al.</i> (2011), Peter A. Creed and Wong Oi Yin (2006), Margaretha S. Lucas <i>et al.</i> (2000), Murat Boysan and MucahitKagan (2016), HuiXu and Terence J.G. Tracey (2014), TirzaWillner <i>et al.</i> (2015), Alvin Leung <i>et al.</i> (2011), ItamarGati and NoaSaka (2007), ItamarGati <i>et al.</i> (2000), ItamarGati <i>et al.</i> (2001)</p> <p>SadiaHussain and RafiaRafique (2013), AnilaAfza <i>et al.</i> (2013), Boram Kim <i>et al.</i> (2014), Samia Nawaz and NighatGilani (2011), Karen D. Rowland (2004), Linda J. Krass and Kenneth F. Hughey (1999), Darrell Anthony Luzzo <i>et al.</i> (1999), HuilingPeng and Edwin L. Herr (1999), Arthur O'Shea <i>et al.</i> (2003), Kathryn H. Ganske and Jeffrey S. Ashby (2007), Boyoung Kim <i>et al.</i> (2016), Hui-Hsien Hsieh and Jie-Tsuen Huang (2014), Jim Bright <i>et al.</i> (2005), VeronikaLatalova and LuborPilarik (2015), Gideon Arulman <i>et al.</i> (2003), Creamer <i>et al.</i> (2005), Priya S. Mani (2005), Robert Reardon (1996), Chung Barry (2002), Yuki Okubo <i>et al.</i> (2007), Bakare <i>et al.</i> (2011), Patrick Johnson <i>et al.</i> (2005), Grier-Reed <i>et al.</i> (2010), Tabitha grier-Reed and Zoilaganuza (2012), ZainabJaved and Omama Tariq (2016), Bathsheba K. Osoro <i>et al.</i> (2004), Tabitha grier-Reed, and Zoilaganuza (2011), Jasinski N. Gary <i>et al.</i> (2013), Emily Bullock-Yowell <i>et al.</i> (2011), Julie L. Quimby and Karen M.O'Brien (2004), Darrell Anthony Luzzo <i>et al.</i> (1997), Jae Yup Jung (2017) Gary Lichtenstein <i>et al.</i> (2009), Darrell Anthony Luzzo <i>et al.</i> (1996), James J. Watters (2010), Thomas F. Harrington (2006), Carla J. McCowan and Reginald J. Alston (1998), Jessica B. Wolfe and Nancy E. Betz (2004), Paul A Datti (2009), Zhongmingming Wang and Ying Fu (2015), Jae Yup Jung (2014), Darrell Anthony Luzzo (1999), Paul J Hartung, and David L. Blustein (2002), Darrell Anthony Luzzo (1996), Paul Greenbank (2012), Alberta M. Gloria and Jeffrey S. Hird (1999), Han Na Suh and Lisa Y. Flores (2017), Nadya A. Fouad <i>et al.</i> (2016), SomayehRajabi <i>et al.</i> (2012), Marilyn Welsh and Sarah Schmitt-Wilson (2013), Pedro M. Cordeiro <i>et al.</i> (2015), Theofanis Stavros Pappas and KalliopeKounenou (2011), MihaelaGuranda (2015), Zhou Jiang (2015), ErkanIsik (2013), Xu Li, Zhi-Jin Hou and Yin Jia (2015), Lent W. Robert <i>et al.</i> (2016), Claudia Cri-san and Sebastian Turda (2015), Jieqiong Fan (2016), Pianpian Guan <i>et al.</i> (2016), Darrell Anthony Luzzo (1998), Byron K. Hargrove <i>et al.</i> (2002), Leili Jin <i>et al.</i> (2009), Alan B. Shafer (2000), Christy A. Blanchard and James W. Lichtenberg (2003), José P. Miguel <i>et al.</i> (2013), Dana Vertsberger and ItamarGati (2015), FouziahMohd <i>et al.</i> (2010), ItamarGati <i>et al.</i> (2006), Mindi N. Thompson and Linda MezydloSubich (2006), George V. Gushue (2006), Jim E.H. Bright <i>et al.</i> (2005), Irene Gianakos (1995), Paul Greenbank (2009), ChosangTendhar <i>et al.</i> (2017), MattiMeriläinen <i>et al.</i> (2014), Hanna-MaijaSinkkonen <i>et al.</i> (2018)</p>

Table 1 – Categorization of reviewed articles

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Allocation of research articles by category and period:

S.No	Category	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08	2009-11	2012-14	2015-18	Total
1	Career Decision making Process	1(100.00)	1(20.00)	1(7.69)	0(00.00)	1(6.67)	1(9.09)	1(5.26)	1(3.85)	0(00.00)	7(5.51)
2	Career decision making Difficulties	0(00.00)	0(00.00)	2(15.38)	4(40.00)	4(26.67)	2(18.18)	4(21.05)	3(11.54)	7(25.93)	26(20.47)
3	Career decision making self - efficacy	0(00.00)	4(80.00)	10(76.92)	6(60.00)	10(66.67)	8(72.73)	14(73.68)	22(84.62)	20(74.07)	94(74.02)
Total		1(100.00)	5(100.00)	13(100.00)	10(100.00)	15(100.00)	11(100.00)	19(100.00)	26(100.00)	27(100.00)	127(100.00)

Table 2 - Allocation of research articles by category and period

As shown in Table 2, we can infer that the majority of the research articles dwelt on defining career decision making self-efficacy (74.02 percent) for all the nine periods combined. Further, the period-wise proportion of research work with respect to career decision making self- efficacy has steadily declined over the three periods i.e. (1994-2002) but later for next five periods there is a considerable increase in publications (2003-2014) and again slight decline in the period of (2015-2018). Also, the proportion of research papers connected to career decision-making difficulties has also increased to 26.67 percent with no publication in the first two periods to and 14.38 percent and 40.00 percent in the third and fourth periods, respectively. There is the fluctuation in the publications from period 2003 to 2014 i.e. (26.67 percent to 11.45 percent) and in 2015-2018 (25.93 percent).

Additionally, the proportion of research articles associated to career decision making as a process has been declined to 7.69 per cent for the first three periods, i.e. (1991 to 1999) and then again from 6.67 per cent to 3.85 per cent from the period of 2003 to 2014 and no publications in the period of 2000-2002 and 2015-2018. However, there has not been much research publications with regard to career decision-making process (amounting to 5.51 percent). Thus, CDM research has largely concentrated on self-efficacy building of an individual.

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Allocation of research articles by journals and period:

S.No	Name of the journal	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08	2009-11	2012-14	2015-18	Total
1	Australian journal of career Development	-	-	-	-	1	-	-	-	-	1
2	British Journal of Guidance & Counselling	-	-	-	1	-	-	-	-	1	2
3	Canadian Journal of Counselling	-	-	-	-	1	-	-	-	-	1
4	Education + Training	-	1	-	-	-	-	1	-	-	2
5	European Journal of Engineering Education	-	-	-	-	-	-	-	-	1	1
6	International Journal for Educational and Vocational Guidance	-	-	-	-	2	1	1	-	1	5
7	International Journal for the Advancement of Counselling	-	-	-	1	-	-	-	-	-	1
8	International Journal of Arts & Sciences	-	-	-	-	-	-	1	-	-	1
9	International Journal of Management	-	-	-	-	-	-	-	1	-	1
10	Journal for the Education of the Gifted	-	-	-	-	-	-	-	1	1	2
11	Journal of Behavioural Sciences	-	-	-	-	-	-	1	2	-	3
12	Journal of Career Assessment	-	-	-	-	-	-	-	-	1	1
13	Journal of Career Development	-	-	2	1	2	-	-	-	-	5
14	Journal of College Student Development	-	-	1	-	1	-	-	1	-	3
15	Journal of Counseling and Development	1	2	1	3	-	1	1	-	-	9
16	Journal of Employment Counseling	-	-	1	-	-	1	-	2	-	4
17	Journal of Engineering Education	-	-	-	-	-	-	1	-	-	1
18	Journal of European Industrial Training	-	-	-	-	-	1	-	-	-	1
19	Journal of Multicultural Counseling and Development	-	-	1	-	-	-	-	-	-	1
20	Journal of the American Society for Information Science	-	-	1	-	-	-	-	-	-	1
21	Journal of Vocational Behavior	-	1	2	3	2	6	4	6	10	34
22	Measurement and Evaluation in Counseling and Development	-	-	-	-	1	1	-	-	-	2
23	Pakistan Journal of Social and Clinical Psychology	-	-	-	-	-	-	-	-	1	1
24	Personality and Individual Differences	-	-	-	1	-	-	-	-	1	2
25	Procedia - Social and Behavioral Sciences	-	-	-	-	-	-	3	2	1	6
26	Professional School Counseling	-	-	1	-	2	-	-	-	-	3
27	Research in Post-Compulsory Education	-	-	-	-	-	-	1	1	-	2
28	Sage Open	-	-	-	-	-	-	-	2	-	2
29	Sleep and Hypnosis- A Journal of Clinical Neuroscience and Psychopathology	-	-	-	-	-	-	-	-	1	1
30	Social Behaviour and Personality	-	-	-	-	-	-	-	2	1	3
31	Studia Psychologica	-	-	-	-	-	-	-	-	1	1
32	The Career Development Quarterly	-	1	3	-	3	-	5	5	5	22
33	The Gifted Child Quarterly	-	-	-	-	-	-	1	-	-	1
34	Thinking Skills and Creativity	-	-	-	-	-	-	-	-	1	1
Total research articles		1	5	13	10	15	11	20	25	27	127

Table 3 - Allocation of research articles by journals and period

Table 3 above shows the allocation of research papers by journal and period. The journals that contributed ten or more (out of a total of 127) research papers include - *The Career Development Quarterly* (22) and *Journal of Vocational Behavior* (34). Going through Table 3, we can infer that the education and counselling sector has shown keen interest in CDM research with three exclusive vocational Career decision related journals (*Journal of Counselling and Development*, *International Journal for Educational and Vocational Guidance* and *Journal of Career Development*) accounting for 14.96 percent of the total research papers and one conference journal (*Procedia - Social and Behavioral Sciences*) that published 4.72 percent of articles on CDM. If we also consider other related journals like *British Journal of Guidance & Counselling* (two papers), *Education + Training* (two papers), *Journal for the Education of the Gifted* (two papers), *Journal of College Student Development* (three papers), *Measurement and Evaluation in Counselling and Development* (two papers), *Professional School Counselling* (three papers) and *Research in Post-Compulsory Education* (two papers) contributes to 12.6 per cent of total publications where

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as Journal of Behavioural Sciences (three papers) and Social Behaviour and Personality (three papers) contributed to 4.72 per cent of the total publications explaining the behavioural science in CDM. Thus, from the table it is highlighted that the maximum number of publications are done in CDM and career development and counseling but in the table of publication also highlights that very few studies have published articles in CDM of the employees and working professionals or working adults as shown in the table (one paper) *International Journal of Management* and (four paper) *Journal of Employment Counseling* contributes to meagre 3.94 percent of total publications which gives the scope for future research in CDM.

Allocation of the articles by type and period:

	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08	2009-11	2012-14	2015-18	Total
Conceptual paper	–	–	–	–	–	–	1	–	–	1
Empirical	1	6	12	10	14	11	19	25	28	126
Total										127

Table 4: Allocation of the articles by type and period

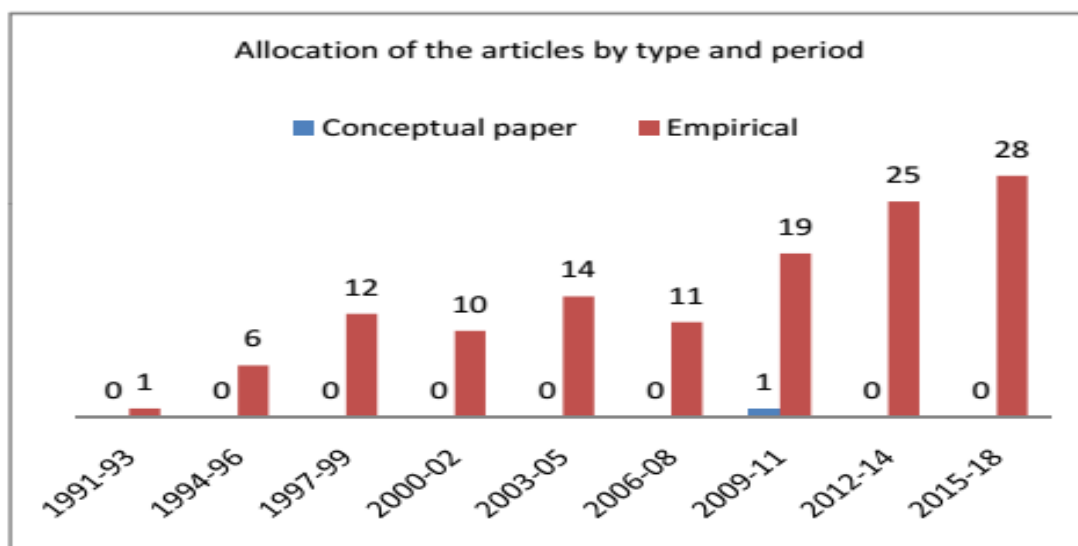


Fig 3 - Allocation of the articles by type and period

The allocation of research papers by type (conceptual versus empirical) and the period is graphically shown by Figure 3. As seen in the table 4, there has been a significant difference in the proportion of conceptual papers with empirical paper 0.79 percent and 99.21 percent respectively. This indicates that a major portion of CDM papers was focused on theory building. However, the paucity of conceptual papers over time indicates an increasing need for empirical support felt amongst the researchers of the subject.

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Allocation of the articles by country and period:

S.No	Country	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08	2009-11	2012-14	2015-18	Total	Contribution (%)
1	Africa	-	-	-	1	-	-	-	-	-	1	0.79
2	Australia	-	-	-	-	3	-	1	1	1	6	4.72
3	Bahamas	-	-	-	-	1	-	-	-	-	1	0.79
4	Belgium	-	-	-	-	-	2	-	-	-	2	1.57
5	Canada	-	-	1	-	-	1	-	-	-	2	1.57
6	China	-	-	-	-	1	-	3	2	6	12	9.45
7	Europe	-	-	-	-	-	-	-	-	2	2	1.57
8	Finland	-	-	-	-	-	-	-	1	1	2	1.57
9	France	-	-	-	-	-	-	-	1	-	1	0.79
10	Greece	-	-	-	-	-	-	1	-	-	1	0.79
11	India	-	-	-	1	-	-	-	-	-	1	0.79
12	Israel	-	-	-	3	2	2	2	3	-	12	9.45
13	Italy	-	-	-	-	-	-	-	1	-	1	0.79
14	Japan	-	-	-	-	-	-	-	-	1	1	0.79
15	Malaysia	-	-	-	-	-	-	2	-	-	2	1.57
16	Oman	-	-	-	-	-	-	1	-	-	1	0.79
17	Pakistan	-	-	-	-	-	-	1	2	1	4	3.15
18	Philippines	-	-	-	-	-	-	-	-	1	1	0.79
19	Portland	-	-	-	-	-	-	-	1	-	1	0.79
20	Portugal	-	-	-	-	-	-	-	1	1	2	1.57
21	Romania	-	-	-	-	-	-	-	1	1	2	1.57
22	South Korea	-	-	-	-	-	-	-	2	3	5	3.94
23	Taiwan	-	-	1	-	-	-	-	1	-	2	1.57
24	Turkey	-	-	-	-	-	-	-	1	2	3	2.36
25	UAE	-	-	-	-	-	-	-	1	-	1	0.79
26	UK	-	1	-	-	-	1	2	1	-	5	3.94
27	USA	1	4	11	6	8	4	7	5	7	53	41.73
Total		1	5	13	11	15	10	20	25	27	127	100.00

Table 5: Allocation of the articles by country and period

The research papers were also analyzed by country of study which reveals that research studies on CDM were spread over 27 countries as shown in Table 5. It is highlighted from the table that the countries which have witness significant research studies (more than 3 per cent coverage) in the area of CDM includes the USA (41.73 per cent), China (9.45 per cent), Israel (9.45 per cent), (Australia (4.72 per cent), UK (3.94 per cent), South Korea (3.94 per cent) and Pakistan (3.15 per cent). The finding as reflected in the table above suggests that, over the years, the importance of understanding CDM is increasing and consequently, with time there is an increase in a number of publications spreading across countries.

Allocation of empirical papers by research method and period

The empirical research articles were also analyzed in terms of research method employed and the findings are presented in Table 6. As seen in the table below, a majority of the empirical papers, across the nine time periods, employed survey research method (82.4 percent) of total empirical publications. The use of a qualitative research method was fully exploited as many research articles applied the combination of different research methods (mixed methods).

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However, for the sake of simplification, the papers were further classified on the basis of a specific combination of qualitative methods (mixed method). As can be seen from the table different qualitative and mixed methods executed are the In-depth Interviews (3.2 per cent), Survey and Interviews (4.8 per cent), Interviews and case study (0.8 per cent), Survey, interviews and observations (0.8 per cent) and Survey, Interviews and Case Study (0.8 per cent). The analysis of 127 research articles by research method revealed that one paper has not specified any research method and one is the conceptual paper as categorized earlier and finally a review of 125 articles have been grouped as empirical papers as shown in the table below.

Research Method	1991-93	1994-96	1997-99	2000-02	2003-05	2006-08	2009-11	2012-14	2015-18	Total
Review study	1	1	3	-	1	-	-	-	-	6
Case study	-	-	-	-	1	-	-	1	-	2
Survey research	-	3	9	8	11	9	14	22	27	103
Experimental	-	-	-	-	-	-	1	-	-	1
In-depth Interviews	-	1	-	-	-	1	2	-	-	4
Survey and Interviews	-	-	1	1	1	1	1	1	-	6
Interviews and case study	-	-	-	-	-	-	1	-	-	1
Survey, interviews and observations	-	-	-	-	1	-	-	-	-	1
Survey, Interviews and case Study	-	-	-	-	1	-	-	-	-	1
Total										125

Table 6 - Allocation of empirical papers by research method and period

CONCLUSION AND LIMITATION

In this study an extensive systematic literature review on career decision making (CDM) based on identified research articles published in a wide variety of journals and selected online database between 1991 and 2018. The present research can be considered as a census study, for reason explained earlier, and therefore the findings and results can be fully generalized to a population. Still, the findings cannot be generalized to a larger universe of CDM literature for obvious reasons.

To be able to conduct such a review the majority of the research articles are divided into three categories viz. Career decision making- as a process (comprising of articles explaining the process of CDM), Career decision making difficulties (includes articles related to the issues or difficulties faced while making a career decisions), and Career decision making self-efficacy (includes the articles related to enhance the confidence or self-efficacy and ability to face the problems while making the career choice). Using this categorization for conducting the comprehensive and systematic review of the literature provides us with an overview of the CDM research field regardless of the research topic, research discipline, and research traditions.

The contribution of research articles across the entire time frame has been escalating continuously from 2009 to 2018. Further, CDM research has involved educational and counseling segments, though the concentration or main focus is clearly biased towards vocational career decision making. This implies the need for doing extensive research work with respect to various untapped industries/sectors such as working professionals, young adults or fresher across sectors. Also, research has been largely concentrated in countries like USA, Israel, China, Australia, UK, South Korea, and Pakistan. In fact, there are too many countries which have not witnessed any significant CDM research study. The proportion of

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the conceptual and empirical paper is unequal across all nine time periods. However, the dearth of conceptual paper over time indicates an increasing need for empirical support felt amongst the researchers of the subject.

Though an effort has been made in the present study to provide an extensive overview of the literature published on CDM in the selected time period, i.e. between 1991 and 2018 it might be affected by some limitations. Despite the fact that a variety of journals were considered it may occur happen that certain phases had been covered to a greater extent in other database, journals or conferences or publication as in the current study only five online database sources were employed to extract the peer-reviewed journal articles on Career decision making. In the end, it can be definitely stated that CDM has attracted significant research interest over time. Going to the past trend, it can be expected that research in the area of career decision making and career development will further increase in the future.

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