

Drucker's Knowledge Worker Productivity Theory Model

Summary

This developmental paper aims to seek feedback from conference participants about Drucker's knowledge worker's productivity theory model that I develop based on my critical literature review. Observing the rise of knowledge workers as a major proportion of the workforce globally and the distinctive nature of knowledge work from manual, Peter F. Drucker, the father of modern management, predicted that enhancing the productivity of knowledge workers will be the prime challenge for the management field and practitioners in the 21st century, and he outlined six determinants of knowledge worker productivity in his untested theory. Although his prediction about the rise of knowledge work stands true as the proportion of and types of knowledge workers, such as full-time, part-time, and gig knowledge workers, have grown exponentially globally, and existing literature is using the theory as an underlying theory, however, his theory has not yet been tested empirically. To test this theory empirically, I require to convert the theory into a modular form. I convert the theory postulates into the model using a critical literature review methodology.

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1 Introduction

With the rise of technology and service sector in the global north and south, knowledge workers – the workers, such as software engineers, doctors, and managers, whose job is to acquire, (co)create, share, and apply knowledge from their educational degrees and other sources to produce knowledge-based intellectual outputs, such as software, and medical solutions – have become the major proportion of current workforce globally and are critical to the performance of current knowledge-intensive organizations and economies more than ever (Shujahat et al., 2021, Shujahat et al., 2019). Knowledge workers are not only working as full-time organizational workers in traditional face-to-face jobs, such as doctors, but also on online platforms as gig or self-employed workers in industries, such as Fintech (Litchfield et al., 2021).

Peter F. Drucker, the father of modern management, is the pioneer social scientist (Drucker, 1959) to observe the rise of knowledge workers as a growing occupation in Global North countries, especially the United States, which was replacing the traditional manual worker occupation. He coined the term “knowledge worker” in 1959, and continued to write that how enhancing knowledge productivity will be the major challenge for management discipline in the 21st century since knowledge work will dominate the century (Drucker, 1989). In his famous conceptual theory paper, Drucker (1999) entitled, “Knowledge-Worker Productivity: The Biggest Challenge” in *California Management Review*, he postulated the six major determinants of knowledge worker productivity, including individual thoughts and actions to (re)define the job task – task crafting, worker autonomy, worker's continuous learning and teaching as job requirements, workers' continuous innovation as a job requirement, High work quality as a major job requirement, and knowledge worker as a firm's capital resource (refer to Table 1).

Table 1: Variables/constructs identified from each of the six postulates of Drucker's theory

S.No.	Postulate/the determinant (Drucker, 1999)	My variable conceptualization	Recognized and established in
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			the existing literature
1	<i>Knowledge-worker productivity demands that we ask the question: “What is the task?”</i>	Task crafting	Wrzesniewski and Dutton (2001)
2	<i>It demands that we impose the responsibility for their productivity on the individual knowledge workers themselves. Knowledge Workers have to manage themselves. They have to have autonomy</i>	Job autonomy	e.g., (Breaugh, 1985)
3	<i>Continuing innovation has to be part of the work, the task and the responsibility of knowledge workers.</i>	Continuous innovation as a job requirement	Yuan and Woodman (2010)
4	<i>Knowledge work requires continuous learning on the part of the knowledge worker, but equally continuous teaching on the part of the knowledge worker.</i>	Continues learning & teaching as job requirements	Not an established construct to have a measurement scale
5	<i>Productivity of the knowledge worker is not—at least not primarily— a matter of the quantity of output. Quality is at least as important.</i>	High work quality as a job requirement	Not established construct
6	<i>Finally, knowledge-worker productivity requires that the knowledge worker is both seen and treated as an “asset” rather than a “cost.” It requires that knowledge workers want to work for the organization in preference to all other opportunities.</i>	Knowledge workers as a firm capital resource	Not established construct

Given the current importance of knowledge workers, I aim to empirically test Drucker’s theory of knowledge worker productivity. My research in this area (Shujahat et al., 2021, Shujahat et al., 2019), literature review (Shujahat et al., 2020, Park et al., 2018, Jääskeläinen et al., 2015), and interaction with academic subject-matter experts, including ones in the Peter F. Drucker School of Management at Claremont University, USA, reveals that the theory has not been tested empirically. However, astonishingly, empirical studies on knowledge worker productivity use Drucker’s theory as an underlying theory to examine the factors and managerial practices that can affect knowledge worker productivity (Kianto et al., 2019, Butt et al., 2019, Razzaq et al., 2019, Wright, 2005, Ramírez and Nembhard, 2004). Further, conceptual and review studies (Inkinen, 2016, Cheong and Tsui, 2011, Wang and Noe, 2010, Razmerita et al., 2009, Kelloway and Barling, 2000) use it to critically explore different phenomena on knowledge work.

Recently, researchers have started empirically testing Drucker’s theory. Developing and testing the model of Drucker’s knowledge worker productivity theory is important for the management literature and practice because of the following reasons. First, the research believes in the empirical test of the theories. Therefore, renowned theories in business & management literature were empirically examined in the later studies. For example, Graham and Balloun (1973) empirically tested Maslow’s theory of motivation (Maslow, 1943), while Greiner and Julian (2017) empirically tested Porter’s (1989) five forces model. Second, a model and an empirical test of Drucker’s theory would help the research community and industry

professionals to use the model as an underlying theory to study the factors and managerial practices that can hinder or enhance knowledge worker productivity. Last but not least, the model would give due recognition to Peter F. Drucker's knowledge worker productivity theory which has not yet achieved as much importance as other recognized and tested theories of knowledge worker productivity, such as the self-determination theory (Ryan and Deci, 2000), human capital theory (Schultz, 1961), and work design theory (Hackman and Oldham, 1975, Morgeson and Humphrey, 2006). Drucker's theory has highlighted some determinants which are not yet recognized variables in the existing literature since their measures are not established (e.g., high work quality as a job requirement). The test of the theory would add knowledge about such determinants for future research and practice.

Against this backdrop, I aim to test Drucker's knowledge worker productivity theory. For this purpose, I have converted the theory into modular form. Since Drucker outlined some determinants which are not recognized in the current literature, I reviewed the literature critically to cross-validate from the literature whether the determinants outlined by the theory are already used in the existing literature and whether their measurement scales exist.

2 Drucker's knowledge worker productivity theory model

Based on my critical literature review of existing empirical research on Drucker's theory and other empirical research on Drucker's outlined determinants of knowledge worker productivity, I formulate Drucker's knowledge worker productivity model (refer to Figure 1). The conference participants will be requested to reflect on the model formulated to validate it. Following are the six determinants of knowledge worker productivity that I operationalize from the six postulates of Drucker's theory of knowledge worker productivity.

1. Task crafting
2. Job autonomy
3. Innovation as a job requirement
4. Continuous learning and teaching as a job requirement
5. High work quality as a job requirement
6. Knowledge worker treatment as a capital resource

Below I outline each of these six determinants, how they are defined in Drucker's theory, and whether and how empirical research has already scales for them to establish them as statistically validated constructs (refer to Table 1).

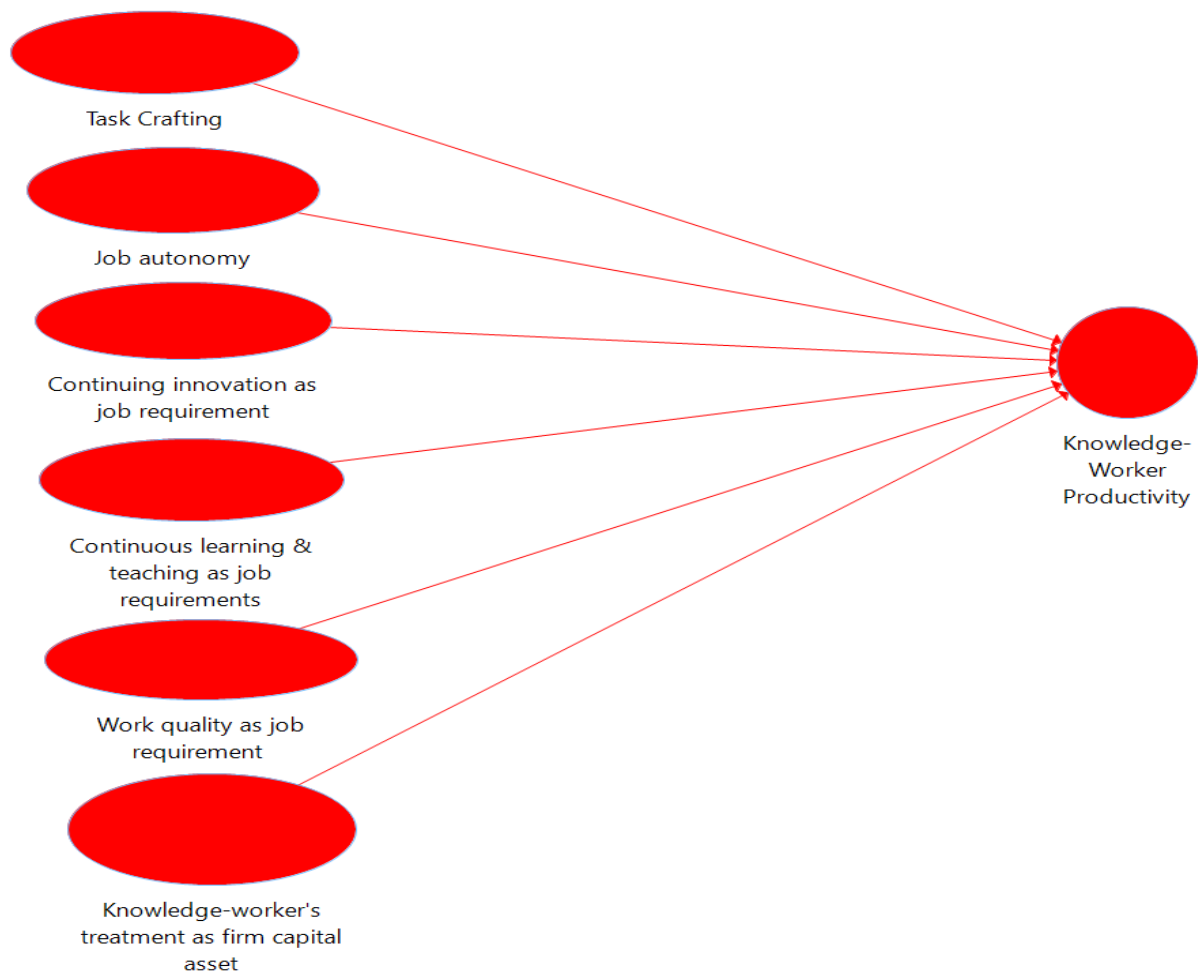


Figure 1: Deduced Drucker’s knowledge worker productivity model (Drucker, 1999)

1. Task crafting:

It refers to an employee’s active attempts to redefine his/her work tasks in line with the spirit of his job to work productively. For example, a nurse leaves out the clerical work she does for a clerk job and only focuses on her job of taking care of the patients. Wrzesniewski and Dutton (2001) have recognized this construct as a dimension of job crafting (Slemp and Vella-Brodrick, 2013).

2. Job autonomy

Job design theory already has acknowledged this determinant (Hackman and Oldham, 1975). It refers to the degree to which an employee has the freedom to schedule his/her tasks, make decisions, and choose methods to work productively (Breugh, 1985).

3. Continuing innovation as a job requirement

Yuan and Woodman (2010) have already recognized it albeit as “innovation as a job requirement” rather than innovation as a “continuous” job requirement. It refers to the degree to which a job requires continuous innovation as the work responsibility of a knowledge worker.

4. Continuing teaching and learning as job requirements

It refers to the degree to which a job requires employees to be involved in learning as well as teaching activities (Drucker, 1999). Drucker conceptualizes the determinant as composed of two dimensions: continuous learning as a job requirement and continuous teaching as a job requirement. This concept is not recognized as an established validated construct. Although there is substantial work in andragogy and human resource management literature that how those employees who employees continuous engagement in mentoring or teaching (Cui, 2017, Smith et al., 1983, Shujahat et al., 2021) and knowledge-seeking or learning activities (Van Veldhoven and Meijman, 1994, Tsai et al., 2007, Shujahat et al., 2021) can enhance employee positive outcomes, such as performance and innovative behaviour, however, there is no one single scale that measures both dimensions of teaching and learning job requirements.

5. High work quality as a job requirement

It refers to the degree to which a job requires that the work output is of higher quality in letter and spirit (Drucker, 1999). Although different work and employee performance scales (e.g., (Brown et al., 2002)) measure how quality work output is measured, there is no such concept and constructs that measure this determinant.

6. Knowledge workers as a firm's capital resource

It refers to the degree to which a firm regards its employees as important as the traditional-held high-valued resources, such as finance, machinery, and estates. There is no scale to measure this important resource. Although concepts in strategic human resource management literature, such as investment in human capital (Bontis and Fitz-enz, 2002), measure the absolute values that firms invest, however, such concepts fail to capture whether firms treat knowledge workers as a capital resource as other traditionally-help capital resources.

Conclusion

I aim to empirically examine Drucker's knowledge worker productivity theory. For this purpose, I deduce Drucker's knowledge worker productivity theory model. I explain, based on the critical literature review, how Drucker's theory's determinants of task craft, job autonomy, and innovation as a job requirement are already recognized concepts that have measurement scales. However, my review also reveals the determinants, including continuous learning & teaching as job requirements, continuous innovation as a job requirement, and knowledge work as a firm capital resource, that are not yet recognized in the existing literature and require building measurement scales for them before the empirical test of the theory. We will collect two-wave time-lagged survey data from 300 knowledge workers. We will apply exploratory structural equation modelling to analyze the data because it simultaneously analyzes the data using confirmatory and exploratory analyses. This data-analysis technique will allow exploring the best model of the theory that fits with the data.

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