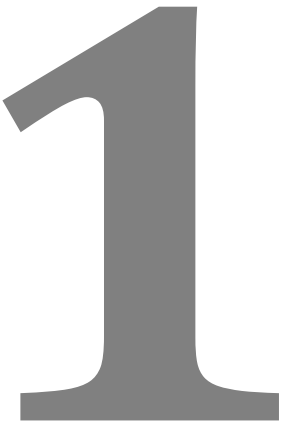
Chapter 1

General Introduction



Individual work performance is a hot issue. It plays an important role in our day to day workplace, in popular media, and in multiple fields within the scientific world, such as occupational health, work and organizational psychology, and management and economics. The following news headings and scientific articles give an indication of how individual work performance can be mentioned:

Popular media:

> *"Challenging individual work performance goals more effective than financial bonus", nu.nl news article* [1].
>
> *"Productivity of a smoker decreases the moment he or she wants to smoke a sigaret", television program De Rekenkamer* [2].
>
> *"Does 24/7 working on mobile increase overall productivity?", The Guardian* [3].

Scientific articles:

> *"When a happy worker is really a productive worker: A review and further refinement of the happy-productive worker thesis"* [4].
>
> *"Absenteeism or Presenteeism? Not at work or not working well"* [5].
>
> *"Freedom to surf: the positive effects of workplace Internet leisure browsing on employee productivity"* [6].

Trends in work

Why is individual work performance such a popular and interesting topic? Several trends in the labor market are responsible. First of all, individual work performance is important because of ongoing **globalization** of the economy. Economic globalization is the increasing economic integration and interdependence of national economies across the world through a rapid increase in cross-border movement of goods, service, technology, and capital [7]. As a result, competition between companies from all over the world increases. Therefore, it is essential for companies to maintain or improve their competitive ability. Individual work performance is one

of the key indicators for team and company performance, and consequently, it contributes to the productivity and competitive ability of companies.

Second, individual work performance is important in the light of the current **economic recession**. Recession refers broadly to "a period of reduced economic activity" [8]. It is characterized by a greater supply than demand in products, a drop in international trade, debts, bankruptcies, high unemployment rates, and low consumer confidence. Companies have to cut costs to stay afloat in these times of economic hardship, for example by employee reductions and/or outsourcing work to cheaper markets. Also, company employees will be encouraged to increase their individual work performance levels, in order to boost company performance and productivity. In addition, employees will tend to increase their individual work performance levels, in order to increase chances to survive possible reorganizations with reductions of personnel.

Third, individual work performance is important considering **sustainable employability**. The 'grey wave' in Europe means that there is an accelerated growth of the older working population and a decline in numbers of the younger working population. As a result, a scarcity of workers in the labor force threatens to arise [9]. Consequently, a shrinking number of workers will have to do the same - or an even larger - amount of work. Also, they will have to pay for the increasing costs associated with a growing elderly population, such as retirement pensions, social security, and health care [10]. It is therefore essential to improve the individual work performance of workers in the labor force. Also, the retirement age of workers will be increased in coming years, in order to prolong the stay of older workers in the work force [11]. This means that employees have to work at the same – or even higher – level of individual work performance, despite possible limitations caused by an older age, such as reduced health.

Maintaining, improving, and optimizing individual work performance

Due to the above trends in work, it becomes increasingly important to maintain, improve, and optimize the individual work performance of employees. In order to do so, various approaches and solutions have been proposed by different scientific fields.

The field of **occupational health** has focused primarily on the relation between health complaints and losses in individual work performance due to sickness absenteeism or presenteeism, and how to prevent productivity loss due to a certain disease or health impairment. Within this field, numerous studies have

been done aiming to maintain or improve an employee's performance levels by targeting their health. These interventions studies address, for example, working conditions [e.g., 12-14], ergonomics at work [e.g., 15-17], safety at work [e.g., 18-20], and physical activity and/or healthy nutrition [e.g., 21-23]. In addition, pre-employment examinations [e.g., 24-26], and health risk appraisals [e.g., 27, 28] are performed in order to prevent occupational injuries, diseases and sickness absence.

The field of **work and organizational psychology** has traditionally been interested in determinants, such as employee ability, motivation, and resources, in order to understand, predict, and improve individual work performance [29]. Work and organizational psychologists have long been involved in hiring and recruiting personnel, using for example interviews, collection of biographical data, and knowledge and personality tests, in order to select the most appropriate candidate for the job [30]. Assessment procedures were developed to evaluate success on the job and identify improvements needed to optimize individual work performance [31]. Also, training and development programs are designed to teach knowledge, skills, and abilities needed to improve individual work performance [e.g., 32].

The field of **management and economics** has primarily been occupied with optimizing the individual work performance of employees, with the ultimate goal of optimizing the company's productivity and competitive ability. Contrary to work and organizational psychology, which generally focuses on the individual, the field of management and economics has a larger focus on the entire work system, including factors such as work processes, technological constraints, and organizational structure [33]. Tools and strategies for optimizing individual work performance include for example the Balanced Scorecard [34], total quality management [33], high performance work systems [35], and pay for performance [36].

Defining and measuring individual work performance

Within the field of **occupational health**, there is a focus on instruments that measure losses in individual work performance due to health complaints [e.g., 37]. These include for example the Stanford Presenteeism Scale [38], Work Productivity and Activity Impairment questionnaire [39], and the Health and Performance Questionnaire [40]. A loss in individual work performance due to health complaints is usually expressed as absenteeism (absence from work due to health complaints) or presenteeism (being present at work but ill). Absenteeism or presenteeism measures are then taken as proxies for losses in individual work performance. The question is, however, whether the equation of a loss in individual work performance

with absenteeism or presenteeism is just. As Johns [41] pointed out in his review, a loss in individual work performance is a result of being absent, or of being present at work while ill, rather than the same thing. Also, within the field of occupational health, the terms of individual work performance and productivity are often used interchangeably. This is perhaps driven by the goal to relate losses in performance or productivity to costs, as productivity usually refers to objective output. The unclear definitions and content of the terms individual work performance, productivity, absenteeism, and presenteeism – and their interchangeable use – have resulted in a multitude of instruments with heterogeneous content. Also, many of these instruments are specifically developed for workers with health complaints. When applied to workers without health complaints, a pronounced ceiling effects in these scales is created. Therefore, these measures are unsuitable for a general, mostly healthy, working population.

Within the field of **work and organizational psychology**, defining the construct of individual work performance, and attempting to understand its underlying structure, has received much attention [42]. Traditionally, the focus has been on task performance, which can be defined as the proficiency with which individuals perform the core substantive or technical tasks central to his or her job [43]. More recently, there has been an increasing interest in discretionary, positive work behaviors that indirectly contribute to the goals of the organization. Various labels have been used for this type of behavior, such as organizational citizenship behavior, extra-role behavior, and contextual performance [e.g., 44]. Also, counterproductive work behaviors that harm the well-being of the organization have received attention [e.g., 45]. Numerous scales have also been developed to measure task performance [e.g., 46], contextual performance [e.g., 47], or counterproductive work behavior [e.g., 48]. The multitude of scales in this research field is perhaps best illustrated by LePine, Erez and Johnson [44], who identified more than 40 different measures of contextual performance. However, heterogeneous content between scales measuring the same dimension, and overlapping content between scales measuring a different dimension, can be observed. Also, the scales are often developed based on a specific type of occupation, making these scales less suitable for use in a generic working population.

Within the field of **management and economics**, performance measurement mostly focuses on the company level, using key performance indicators such as employee turnover, customer satisfaction, and financial performance. Especially in the United States of America, performance measurement

has taken off since President Clinton signed the National Performance Review Act in 1993. Within companies, human resource management has developed performance measurement systems to determine individual work performance. Thus, these performance measurement systems are often specific to the job or company. Also, human resource managers have drawn on research from work and organizational psychology to measure individual work performance [49].

A lack of consensus

Despite its importance and popularity, there is little consensus on how to define and measure individual work performance. It follows naturally that a multitude of instruments exists to measure individual work performance or one of its related constructs. When considering the research on individual work performance from the different research fields, it seems evident that a clear definition and conceptual framework of individual work performance is lacking. This seems to be true not only between research fields, but also within research fields. Various terms are used to refer to individual work performance, such as productivity, absenteeism, and presenteeism. Often, their exact definition and content is unclear, and the terms are used interchangeably. This raises the question of how individual work performance should be defined. And what exactly constitutes individual work performance? Is it a single, unidimensional construct, or is it made up of multiple components, or dimensions? The lack of consensus on how to define and conceptualize individual work performance is undesirable, because a clear definition and conceptual framework of individual work performance is a prerequisite for its valid measurement.

In accordance with the lack of consensus of the definition and conceptualization of individual work performance, a multitude of instruments exists to measure individual work performance or one of its related constructs. Three concerns arise when considering the numerous instruments to measure individual work performance developed by the different research fields. First, do the measures capture the complete range of individual work performance? Second, do they include the right content? And third, are they suitable in a generic, mostly healthy, working population? The lack of consensus on how to measure individual work performance is undesirable, because valid measurement is a prerequisite for accurately establishing the effectiveness of interventions, procedures and strategies to maintain, improve, or optimize individual work performance.

Objective of this thesis

The lack of consensus on how to define, conceptualize and measure individual work performance impedes valid measurement of the construct. As a result, it remains difficult to establish the effectiveness of interventions, procedures and strategies to maintain, improve, or optimize individual work performance. Research would benefit greatly from a comprehensive, generic, and short instrument to measure individual work performance. As Lord Kelvin (1883) said: "*Measurement is knowledge*". Therefore, the main objective of this thesis was to develop and validate a comprehensive, generic, and short questionnaire to measure individual work performance.

Outline of this thesis

Part I of this thesis describes the developmental phase of the Individual Work Performance Questionnaire. First, Chapter 2 presents a systematic review of the literature on conceptual frameworks of individual work performance. In this chapter, a definition of individual work performance is given, and an integrated, conceptual framework is proposed, which is used as the starting point for the development of the Individual Work Performance Questionnaire (IWPQ). As existing knowledge was insufficient to operationalize the dimensions in this conceptual framework, in Chapter 3, numerous indicators used to measure individual work performance are identified via the scientific literature, existing questionnaires, and expert interviews. Subsequently, the most relevant indicators per dimension are selected by experts from different professional backgrounds.

Part II of this thesis describes the field-testing phase of the Individual Work Performance Questionnaire. In Chapter 4, the development, pilot-testing, and field-testing of the Individual Work Performance Questionnaire is described. For each dimension of individual work performance, a generic, short scale was constructed. In Chapter 5, the improvements that were made to obtain optimal targeting of the IWPQ are described. Here, the final version of the questionnaire – the IWPQ 1.0 – is presented. In this chapter, the calculation of sumscores and the interpretability of scores are also discussed.

Part III of this thesis describes the validation of the IWPQ 1.0. In Chapter 6, two types of construct validity of the IWPQ are described. First, the relations of the IWPQ with presenteeism and work engagement are examined (convergent validity). Second, it is examined whether workers low and high in job satisfaction, and workers low and high overall health, can be discriminated on IWPQ scores (discriminative

validity). In Chapter 7, the responsiveness of the IWPQ is examined in a randomized controlled trial (RCT) on physical activity and relaxation in the workplace. In Chapter 8, the cross-cultural validation of the IWPQ to the American-English language is presented. The thesis concludes with a general discussion in Chapter 9.

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