Individual Work Behavior in Online Labor Markets: Temporality and Job Satisfaction

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Abstract

The digitalization of labor markets has created new patterns of work. One such example is the rise of powerful intermediaries, known as online labor markets (OLMs), such as Freelancer and Upwork. Being rapidly growing markets, OLMs have attracted the interest of many researchers in recent years. Our research aims to examine the influence of temporal personalities of workers and the impact of temporal dimensions of work on job satisfaction in OLMs. Furthermore, we identify intrinsic and extrinsic factors contributing to job satisfaction. We use person-job fit and job characteristic theory as a theoretical foundation for this research. To collect data from workers, a survey will be designed and deployed on three popular online labor markets. The results of the study will help us to understand workers' perception of job satisfaction in such markets.

Author Keywords

Online labor markets; temporal personality; dimensions of time; job satisfaction.

ACM Classification Keywords

H.1.2. User/Machine Systems: Human Factors.

Introduction

Online labor markets (OLMs) are web-based platforms where employers offer jobs for the accomplishment of specific work and workers bid for the jobs to sell their labor [15]. These markets are growing at a fast pace as worker earnings are expected to cross the $10 billion mark by 2020 [1]. This popularity of OLMs has attracted millions of workers across various countries. The nature of work environment in online labor markets is different as compared to traditional organizations. This new form of work requires understanding how work is managed in these markets and how it differs from work in traditional organizations [1,7].

Freelance workers are becoming a critical sector of labor force. A recent survey shows that 67% of freelancers plan on continuing with the same career for a decade [3,23]. Although 65% of respondents believe their life as a freelancer has improved over the last year, still 68% would consider giving up freelancing for a traditional job with good benefits [3,23]. The statistics highlight the need to learn more about job satisfaction in OLMs. Furthermore, there are research gaps that will be worth tracking in these emerging markets where the knowledge related to temporal culture of work, worker's perceptions of job satisfaction and personality-task fit is limited.

OLMs are based on fast pace working environment where the efficient use of time and technology is fundamental. Different pattern of time utilization have received attention in relation to effective workplace behavior [5]. In competitive and dynamic environments like OLMs, workers are required to be engaged in a variety of tasks, activities and roles simultaneously [18]. This research aims to examine the influence of temporal personalities of workers and the impact of temporal dimensions of work on job satisfaction. Furthermore, we identify intrinsic and extrinsic factors contributing to job satisfaction.

Significance of study

A key characteristic of OLMs is their heterogeneity. Workers in OLMs have varying expertise, skills, and capabilities with flexibility of moving across the different task types any time. One of the main challenges in OLMs is that not every worker may be a good fit for all the tasks. By focusing on this challenge, this study is novel from human resource management perspective whose major role is to create a harmonization between workers and requirements of their work. Traditionally the focus is on measuring skills and personality types that are predictors of a worker's job success. However, the relationship between an individual's conception of time in hiring process has been overlooked in existing literature [4].

Existing research on OLMs has primarily focused on hiring decisions [6,16], geographical differences [1,13], and bidding strategies adopted by workers [13]. By comparison, this research aims to make a contribution to literature from the perspective of work psychology and individual behavior in OLMs. Research related to perception, measurement, and use of time by individuals in OLMs is still limited [17].

Output and Impact

The research proposed here will provide an in-depth analysis regarding the workers in OLMs, especially their work behavior. Based on our findings, OLMs can take appropriate steps to ensure that there is right personality-task fit. Furthermore, OLMs can design

effective strategies for worker retention. Employers and companies can use these OLMs to identify and hire workers that can work exceptionally in online environment. More virtual teams can be formed for greater productivity and reducing work related costs.

Central Research Question

Online labor markets create value by providing transactions and services to workers and employers who are geographically distant [15]. The complexity of work in OLMs can vary with tasks requiring a few minutes to several months. These markets are a move towards task-oriented approach to work where time spent on work depends on completion of the task rather than fixed working hours. OLMs are highly competitive where deadlines and timing are crucial. However, the concept of work time in OLMs is only studied in context of time zone differences [13]. And, the implications of the temporal aspects of work in these technology-driven markets are unknown. Based on this observation, our main research question is: *how different concepts of temporality are applicable in online labor markets and how they affect job satisfaction of workers?*

This research work uses two existing theories as its theoretical foundation: *person environment (P-E) fit theory* [8] and *job characteristic theory* [9]. The basic notion of P–E fit theory is that there needs to be a match between individual needs and environmental resources, as well as a match between individual abilities and environmental demands. Instead of person-environment fit, the focus here is more on person-job fit since our study focuses on temporal personalities of workers that fit with different tasks. Job characteristics theory provides a theoretical basis for understanding how job characteristics determine

workers' attitudes and behaviors [9]. According to this theory, job design influences motivation, work performance, and job satisfaction. Our study evaluates the intrinsic and extrinsic job characteristics that influence worker's job satisfaction.
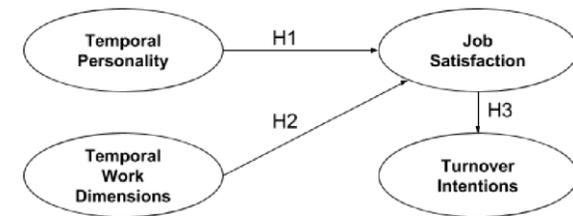

Figure 1: Research Model

Research Model

Dynamic work environments require workers to be engaged in a variety of tasks, activities and roles that they can handle simultaneously [18]. The concept of temporal aspects in organizations was first introduced in [10]. Later it was highlighted that the decision of an individual to behave monochronically or polychronically depends on task and priority of the task [21]. Hence, the temporal personalities of online workers may range from an uni-tasked monochronic individual to multi-tasking polychronic individual who is able to deal with a variety of tasks [11]. Based on this observation, our first set of hypotheses are:

H1a: In online labor markets, most workers have a polychronic work behavior than monochronic.

H1b: In online labor markets, polychronic individuals will show higher job satisfaction than monochronic individuals.

H1c: In online labor markets, polychronic individuals are less likely to quit.

Understanding the temporal dimensions of work is also fundamental in OLMs. These dimensions help in understanding how tasks are organized. Ancona et. al. have categorized temporal dimensions of work in terms of schedule, deadlines, duration and frequency [2]. For example, individuals who are better at synchronizing tasks and efficiently allocating time are also shown to achieve high performance and job satisfaction [19]. Our second hypothesis is as follows:

H2: At individual worker level, the temporal dimensions of work are positively correlated with higher job satisfaction in online labor markets.

This research also aims to determine factors contributing to job satisfaction in OLMs where the term job refers to the individual task or project. Herzberg's two-factor theory is centered around intrinsic and extrinsic factors [12]. Identifying factors relevant to OLMs, we will measure workers' perceptions of rewards, ease of task, challenge & interest, time flexibility, interpersonal ease, achievements, and job security [11]. When an individual chooses a job for extrinsic rather than intrinsic reasons, for example, salary or location rather than opportunities for learning and advancement, it may lead to lower job satisfaction [22]. Therefore, our third hypothesis is:

H3: In online labor markets, job satisfaction is lower among individuals who chose tasks for extrinsic reasons rather than intrinsic reasons and vice versa.

Research Methodology

Data in support of this research will be collected from both primary and secondary sources. Primary sources for data include surveys from workers in OLMs. Three most popular OLMs will be considered for data collection to compare the results Amazon Mechanical Turk, Freelancer and Upwork. Secondary sources of data include research articles, industry reports, and worker forums.

We will extract some of the data from platforms using web scraping or crawling technique [12]. Project level data will include duration of projects, types of projects etc. Individual level data will include demographic information, work history, work availability etc. To collect the data an employer account will be created in the above listed markets and surveys will be posted, this approach is similar to other studies in these online labor markets [20]. A project will be posted on each market that will require workers to fill out the survey designed for this research. Appropriate consent forms will be first filled out and voluntary participation will be encouraged. Each participant will be compensated a reasonable amount for responding to the survey.

To measure variables the items will be adapted from existing literature. SPSS and partial least squares structural equation modeling (PLS-SEM) technique will be used to estimate the relationship among variables.

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