

An Exploratory Study of Job Crafting in the Context of the Gig Economy

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Abstract

Since the outbreak of the pandemic in 2020, migration has decreased, and the shortage of workers in small and medium-sized enterprises has become more serious. At the same time, the chances of low-skilled workers finding a job are even slimmer. At this time, shared employment and gig economy became an alternative employment method due to its freedom. In China, takeout riders on Meituan, Eleme and other platforms, for example, played an important role during the epidemic. Job crafting is a behavior that employees give play to their subjective initiative and take the initiative to adjust their work characteristics to match the individual with the job, which is conducive to improving the enthusiasm of employees. And due to the particularity of food delivery, takeout riders among gig workers also provide conditions for this behavior. Based on the research of previous job crafting literature, this paper summarizes the factors that affect job crafting behavior and the resulting variables. Based on the grounded theory, this paper conducted an in-depth interview with takeaway riders to explore the new connotation changes in job programmed grounded theory under the gig economy, which can provide inspiration for gig platforms to manage takeaway riders more effectively.

Keywords

Gig Economy; Regulatory Orientation; Job Crafting.

1. Introduction

1.1. Background to the Study

The way of working has changed over time. For most of the last century, traditional or standard work arrangements still prevailed. As an example, full-time workers commuted to work on time, had no set end date for their employment contract and worked on site under organizational supervision. However, in recent years there has been an increase in non-standard work arrangements, which may include part-time, temporary, contract-based work (Kalleberg, 2000), some on-call work, and telecommuting (Ashford, George, & Blatt, 2007) and self-employment (Hipp, Bernhardt, & Allmendinger 2015), among other forms. Flexible forms of work have become indispensable in recent years due to the impact of the epidemic. In the gig economy, employees perform short-term, on-demand tasks with different employers (i.e. 'fractional work') (Torpey & Hogan, 2016), which is a typical manifestation of this model.

In the context of the gig economy, unlike knowledge workers in the West, the main occupations in China include takeaway riders, online taxi drivers and bloggers. With the rise of Hungry Food and Meituan, people's perceptions of dining out have changed and the demand for takeaway food delivery is expanding. The number of takeaway riders, a new occupational group, has been increasing, bringing convenience to people's lives and also attracting increasing social attention. Recent years have seen the publication of articles on algorithmically controlled, gamified mechanisms, trapped in the system (Chen, Long, 2020; Deng, Zhiping, 2021; Zou, Kai-Liang and Wang, Xia, 2022), and the emergence of legal cases about unclear labour relations leading to

damage to their rights and interests, with no recourse and ineffective claims (Que, Zibing, 2021). The working process of this particular group is gradually being understood and has received academic attention.

Employers in the work process of takeaway riders refer to third-party platforms. The platform's algorithm replaces the rules and regulations of the traditional work context, guiding and constraining the rider's actions at every step of the process, from placing the customer's delivery order, to the rider taking the order, to the merchant delivering the food, to the rider delivering the food.

Job Crafting refers to the proactive actions that employees take through their own contribution to crafting and changing their work (Tims, Bakker & Derks, 2012; Tims & Bakker, 2010; Wrzesniewski & Dutton, 2001). Numerous studies have shown that Job Crafting helps to improve employees' fit with their work environment, enabling them to realise their self-worth and create greater value for the organization (Lu, Wang & Bakker, 2014; Tims, Derks & Bakker, 2016).

1.2. Theoretical Implications

This study discusses what has changed in the connotation of Job Crafting in the context of a gig economy. Numerous studies have also suggested that future research use qualitative research to explore the relationships between variables longitudinally. Research on Job Crafting, on the other hand, has rarely been addressed in the context of a gig economy. Therefore, this paper uses qualitative research interview rooting to derive the connotation of Job Crafting in the gig scenario through interviews and respond to the characteristics of Job Crafting in the Chinese cultural context versus the Western context (Tian Qitao, Guan Haoguang, 2017).

At the same time, this study is an empirical study that applies the new mobility paradigm to work crafting, focusing on low-skilled workers who have received less attention in existing academic research on work, and enriching Gregson's (2018) research on mobile workers.

1.3. Practical Implications

This study is dedicated to investigating the mechanisms by which individuals' regulatory orientation preferences in a group of takeaway riders in an gig economy context influence the relationship between crafting behaviors during work, and the moderating role of perceptual algorithm algorithms between regulatory orientation and self-efficacy, thereby providing viable pathways on how gig workers can enhance their own Job Crafting. The findings of this study draw several key points that need to be noted to better help the platform and the practitioner achieve a win-win situation.

Firstly, this paper helps takeaway platforms to improve the motivation of riders to deliver food. Secondly, examining how individual workers practice their daily work and find meaning in the process helps to understand the attractiveness of the gig economy from an individual perspective.

Thirdly, there is some guidance for the algorithm behind the delivery platform to develop. A more robust algorithmic mechanism is established to balance speed and safety, control and autonomy, and to maximize the protection of riders' rights and interests in the course of their work.

Finally, it reveals the particular context of China. Jobs such as takeaway riders and online taxi drivers are exploding. Many of the practitioners were previously migrant workers. Compared to factories, platforms offer them a less restrictive way of working and controlling their own lives, along with higher wages. For them, the work of a takeaway rider is not only an economic option, but also a new way of working that can be considered in the domestic context.

2. Literature Review on Job Crafting

2.1. The Concept of Job Crafting

Job Crafting is a concept in the field of work design where employees spontaneously redesign their work from the bottom up (Kulik, Oldham & Hackman, 1987). Breaking out of the top-down approach from an organizational perspective is a behavioral process whereby employees actively change the boundaries of their work (Wrzesniewski, Dutton, 2001). When employees change the form, scope or amount of tasks they do, they can feel more meaningful and autonomous in their work (Wrzesniewski et al., 2010). wrzesniewski describes work crafting from a qualitative perspective.

Any changes made by individuals in the definition of work crafting related to tasks, relationships, and boundaries of work are specifically divided into three dimensions: (1) changing the task boundaries of work, e.g. including changing the type or number of tasks at work, i.e. task crafting; (2) changing the nature of interpersonal relationships at work, i.e. relationship crafting; and (3) changing perceptions of work itself, i.e. cognitive crafting (Wrzesniewski, Dutton, 2001).

Subsequently, the Job Demand-Resource model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) defines Job Crafting as "the active changes that employees make in response to their own abilities and needs in order to achieve a balance between job demands and job resources" (Tims & Bakker, 2010). In the JD-R model, job requirements refer to the aspects of the job that require employee effort and job resources refer to the aspects of the job that help individuals meet job requirements and provide opportunities for learning and development (Bakker & Demerouti, 2014).

There are four forms of Job Crafting: (1) increasing structural job resources (job characteristics that help to achieve job goals and self-fulfilment, such as autonomy, diversity and development opportunities); (2) increasing social job resources (job characteristics that mobilise relational domains, such as feedback, social support and coaching); and (3) increasing challenging job requirements (ways to create job requirements that require one's own efforts to reach rewarding) (LePine, Podsakoff, & LePine, 2005); and (4) reducing hindering work demands, (ensuring that work is not too demanding by reducing emotional or cognitive demands) (Tims et al., 2012). Correspondingly, the Job Crafting Scale was developed from a quantitative perspective.

2.2. Research Related to Job Crafting

2.2.1. Antecedent Variables of Job Crafting

Job Crafting is a spontaneous behaviour made by employees. Analysis of the literature reveals that the factors influencing Job Crafting are personal traits, job characteristics and organizational-level influences.

Whether or not to engage in Job Crafting behaviour is closely related to personal traits, but empirical research is relatively scarce and mostly at the theoretical stage. Empirical research has shown that employees who are more proactive are more able to recognise when it is time to make changes and take action to proactively improve their current work environment, job content or relationships and perceptions, thus making work more meaningful (Grant, 2008). At the same time, employees who are more proactive are more likely to improve their professional skills through Job Crafting (Akkermans et al, 2017). Employees with a higher sense of self-efficacy are confident enough to successfully change their current job that they will engage in more crafting behaviors and are more likely to be successful (Vough et al, 2008). Job Crafting based on individual strengths is more effective (Tian, Xizhou, and Liu, Melissa, 2017).

With regard to personal traits, regulatory orientation theory starts from the motivational level and divides human preferences into promotion focus and prevention focus. An employee with

a high promotion focus cares a lot about positive outcomes and will adopt work crafting behaviors in order to achieve higher job meaning; correspondingly, an employee with a high prevention focus avoids mistakes in the work process and focuses on safety and responsibility, and therefore tends to reduce hindering work demands. At the same time, promotion focus has a significant positive effect on job resource crafting and job requirement challenges in job crafting (Brenninkmeijer & Hekkert-Koning, 2015).

With regard to job characteristics, different job task characteristics are also a major key reason for influencing employees' job crafting. Job independence flexibility is an important factor in motivating employees' job crafting behaviour (Rui-Ling Hu et al, 2015; Niessen et al, 2016). Job autonomy positively influences job crafting, with individuals exhibiting higher levels of job crafting when they feel more autonomy from the organization (Petrou, 2012). Individuals are more satisfied with their jobs when the person-job match is in a relative equilibrium, and when this equilibrium is disturbed, the match falls, which in turn triggers job crafting behaviour (Bakker, 2010).

In terms of organizational impact, managers in organizations can give employees the timely feedback they need on job requirements and resource capabilities, and make timely evaluations of employees so that they understand where they should make changes and adopt appropriate job crafting behaviors, which can positively contribute to employee-initiated job crafting (Tims et al, 2010). Organizations can motivate employees to reinvent their work by increasing their sense of organizational support (Zhu et al, 2017). In work teams, leadership job crafting can have a significant positive impact on employees' propensity to reshape, and the same degree of job crafting can have different effects on employees' propensity to reshape their work under different leadership styles (Xin Xun, 2017). Coaching leadership style has a significant positive impact on employees' job crafting behaviour (Wang Hongyu et al., 2018).

2.2.2. Outcome Variables of Job Crafting

Many studies, both domestic and international, have shown that job crafting has a positive and positive effect on the employee level as well as the organizational level.

At the individual level, work crafting itself stems from changes initiated by employees and helps them to enhance their sense of meaning at work at an internal level (Tims et al, 2010; Tims et al, 2013). There are a number of internal and external dimensions through which employees can reinvent their work, thus effectively avoiding some career regrets (Tian Xizhou and Ma Ke et al, 2015). Task crafting and cognitive crafting in crafting are significantly and positively related to employees' work engagement (Yin Kui et al., 2016). Work crafting behaviors can construct an environment that can be more conducive to employees' strengths and maintain or even enhance their performance (Brickson, 2011; Plomp et al, 2014). Employees' work crafting behaviors have a significant positive impact on improving work performance (Xin Xun et al, 2018). From the perspective of team work crafting, work crafting is conducive to improving team cohesion and promoting work engagement (Wang Zhen, 2020).

At the organizational level, employees' work crafting behaviors are based on self-interest as the first consideration, so some scholars have hypothesized that these behaviors may be detrimental to the organization's goals or interests, but the findings of the current empirical studies show that most produce positive results. The most immediate positive effect of employees engaging in job crafting for the organization is a significant improvement in organizational performance (Ghitulescu, 2006; Bakker et al., 2012). In this process, job crafting between leaders and subordinates affects each other, while employees accepting challenges, learning new knowledge, and improving their ability to innovate have a significant positive impact on the overall innovation performance accomplished by the organization (Xin Xun, 2017). Therefore, employees are better matched to their positions through job crafting and are thus better able to perform the organization's job tasks and increase organizational benefits

(Tims et al, 2010). For example, in the teacher community, employees who have been reinvented at work experience pleasure in their work and are more inclined to engage in organizational citizenship behaviors that help others (Geng, Qingling et al., 2016). Studies conducted in China and Japan have shown that employees who engage in work crafting behaviors have higher organizational commitment (Bakker et al, 2012; Laurence, 2010). Moreover, collective job crafting contributes more to employees' organizational commitment than individuals who engage in crafting behaviors (Leana et al, 2009). Research has also shown that employees who adopt job crafting behaviors tend to have lower absenteeism or turnover rates during the rest of their working lives, thus reducing potential costs to the organization and being more conducive to long-term organizational stability (Ghitulescu, 2006; Bakker et al, 2012).

3. Job Crafting Interview Study

The interview study was used to obtain first-hand information, to explore the connotations of work crafting in the context of the odd-labour economy while carrying out content analysis of the textual data, and to prepare for the quantitative study of work crafting.

3.1. Purpose of the Interview

The interview method is a method in which the investigator asks the interviewer relevant questions based on the needs of the investigation in the form of verbal communication, and collects material based on the responses as a way to use it for academic research.

Qualitative research helps the researcher to better discover the essence and characteristics of a phenomenon, i.e. to achieve a clearer understanding of a phenomenon by identifying the underlying reasons for the emergence of several characteristics of the phenomenon, in a more profound and authentic way. As a mainstream qualitative research method, the interview method allows the researcher to obtain details of the work processes of the interviewees, the stories of what happens and to detect the deeper motivations behind the way people behave. Narrative is therefore the most authentic and relevant method for understanding and interpreting people's experiences.

The main purpose of this paper is twofold: firstly, to explore through interviews how the typical employment group of takeaway riders in the gig economy describe their inner feelings about work crafting and adopt behavioral approaches to provide source material for the development of the quantitative work crafting research questionnaire; and secondly, to provide supporting evidence for the validity of the model through interviews.

3.2. Interview Design

The interviews were mainly conducted using semi-structured interviews. Reading materials and introductory questions were first compiled to screen out interviewees with more adequate experience and who would be more helpful to the interview results, and then formal interviews were conducted after their consent was sought and their time confirmed.

After preparing a semi-structured outline of the interview, the interviewee answers all the questions in the outline, and the interviewer discusses them with the interviewee and asks follow-up questions about the details of the interviewee's answers in order to maximize the content of the interview.

The interviewer first gets the interviewer into the mood by asking basic personal questions and then asks basic questions, such as a comparison between the previous job and the job of a rider, to elicit memories of the interviewee's work situation. The interviewer then asks basic questions, such as the comparison between the previous job and the job as a rider, to elicit the interviewee's recollection of the work scenario, and about the perception and awareness of their job crafting behaviour (e.g. has your perception of your job changed in terms of the time

dimension after your job crafting?) . If the interviewee does not understand and needs more prompts, the interviewer needs to give some concrete examples (e.g. when you find that the route planning made on the app side does not match the actual situation, the merchant is slow in delivering food, the order is far away, etc., do you take any action that is not within the work instructions?) .

Once the interviewee has confirmed this answer, the interviewer then proceeds to the follow-up questions: (1) What makes you more inclined to take these actions? (2) Do you feel that taking these crafting actions has had any impact on yourself, the platform, your customers, etc.? (3) What made your craftings have the desired effect? (4) What are the obstacles to these craftings?

3.3. Interview Process and Content Analysis

3.3.1. Interviewees

To ensure the validity and persuasiveness of the sample, purposive sampling was used in this study. That is, the sample that could provide the most amount of information for the purpose of the study was selected as the target according to the purpose of the study, and the specific sampling criteria for this study were reflected by the results of the answers to the introduced questions.

The purpose of the introduction questions was to select the subjects that best met the objectives of the study from among the many participants. According to the criteria set, riders with at least one year's experience in the takeaway industry were selected as interviewees for this study, while other conditions such as region, platform and salary level were not required.

The introduction questions were divided into three parts. The first part is the background information section; the second part, which briefly introduces the background of the study, introduces the definition of the odd job economy and job crafting, and asks: "Although organizations have clearly told their employees what their job duties are and what they should do, sometimes people make positive changes to reconstruct their work to gain job identity and job role, including the perception of the whole This includes changes in the perception of the work, the relationships between people and the tasks of the job. The core aim is to redesign the work to achieve a higher sense of meaning, engagement and satisfaction. Have you ever made any such changes in your work process? If you answered 'yes', then continue with the third section.

The third section consists of three simple job crafting questions, to which the respondent simply selects 'yes' or 'no'.

Question 1: "Have you ever done something new at work on your own initiative other than what your supervisor or job requires? Or have you ever changed a way of working that you thought was not very efficient"; Question 2: "Do you enjoy helping others at work? Or do you enjoy participating in work-related social activities? Or do you make positive changes to shape working relationships with others"; Question 3: "Do you believe that your work contributes to social progress? or have a positive impact on others". This was used to screen potential interviewees.

Respondents were contacted through platforms such as idle fish, postings and snowballing, and those riders who had at least one year's work experience and were willing to be interviewed met the interview requirements, with a total of 25 respondents found and 18 replying. A total of 12 interviewees were selected based on the responses to the questions introduced. As two of the interviewees were unable to attend the interview in time for work, the final number of interviewees was determined to be 10. Afterwards, the purpose of the interview was explained to the interviewees and an appointment was made for the interview to begin. Guided questions were asked according to the outline of the interview, and the angle of the interview was

adjusted according to the actual situation, and additional questions were asked. The interviews were conducted in the form of telephone conversations and Tencent meetings due to the epidemic and geographical constraints. After the interviews were completed the audio files were collated into a transcript and sent to the interviewees to ensure that they did not deviate from their original intentions, and a text file was generated to facilitate subsequent coding and viewing. Follow-up contact was required mainly by way of an internet chat tool. It should be noted that the final sample size of the interviews was not limited to the above, and some sample views from interrupted interviews were adopted. Interviews were stopped until the last subject was interviewed and found that the research collection was saturated with content that could not provide new dimensions and concepts, resulting in 10 valid interview data.

The basic information of the interviewees is shown in Table 1 and the names of the interviewees have been replaced with dummy names in this interview in order to protect the privacy of the interviewees.

Table 1. Basic information about the job crafting interviews

No.	Name	Gender	Age	Education	Date of interview
1	Mr. Zhao	M	26	High school	2022.9
2	Mr. Sun	M	40	High school	2022.9
3	Mr. Niu	M	23	High school	2022.1
4	Mr. Zhou	M	28	Specialized	2022.1
5	Mr. Hu	M	30	Specialized	2022.1
6	Mr. Li	M	22	Junior High School	2022.1
7	Mr. Wang	M	25	Bachelor's degree	2022.11
8	Mr. Pan	M	27	Junior High School	2022.11
9	Mr. Ou Yang	M	24	Postgraduate	2022.11
10	Ms Guo	F	28	Bachelor's degree	2022.11

3.4. Data Collection and Coding Analysis

After interviewing 10 subjects, this study found that the sample was largely saturated. A 35,000 word transcript was eventually obtained.

Although computer software such as the NVIVO qualitative research tool allows for reliable data analysis of the interview data, as this study is an exploratory study, the data analysis process particularly requires professional judgement based on theoretical knowledge and experience, and it is unlikely that any computer statistical analysis tool will be able to fully identify the concepts in the interview data, and there is a risk that some key information may be missed. The researcher's professional knowledge and skills therefore play a significant role. Therefore, in this paper, the interview data were analyzed using the 'researcher' as the analysis tool.

3.4.1. Collation of Interview Results

The overall interview findings were first open coded in accordance with the mainstream three-level coding approach for qualitative research, extracting open concepts and 28 initial categories. Based on the interview data, 28 statements were initially extracted that were most relevant to work crafting, as shown in Table 4.2. The main categories were then clustered and analyzed by coding the main axes. Finally, selective coding was carried out to categorize the 10 categories into three dimensions, i.e. three core categories were abstracted, namely task crafting, relationship crafting and cognitive crafting, as shown in Table 4.4.

3.4.2. Open Coding to Extract Concepts and Categories

Table 2. The open coding process in this study

No.	Open coding	Original text
1	Work time planning	This job also requires you to use your brain to think and plan. For example, I will think about how to make full use of my tools, I have two electric bikes ready, basically keep them fully charged for switching, save the time wasted on charging.
2	Adjusting the number of orders	I receive is sometimes too tiring, but with location, as long as you are within that range, he will send you orders, sometimes if I do not want to deliver, I will rest at the edge of the place, the system does not check the current location, you will not be sent orders.
3	Early delivery	I will be more punctual, a little earlier to his delivery, the customer's impression will be better.
4	Adjust service attitude	this service industry attitude should be good, especially the treatment of customers attitude should also be good, for the kind of about to overtime, or has been overtime, the first time with them to say sorry apologies, beg for customer forgiveness, strive to let customers have sympathy, do not let customers give me a bad review
.....
24	Build a mutual help network	But when we face external pressures, we choose to huddle up and actively shape relationships with colleagues, support each other in the work process and build a mutual help network organised by collegial relationships.
25	Respect the people you interact with	I am gentle and courteous with customers, business people and colleagues, fully respecting others as a way to gain their respect and leave a good impression in their minds
26	Adjusting your mindset	You must be unbalanced at this time, so you'll just have to admit you're unlucky, won't you?
27	Demonstrate self-worth For others	I as a delivery rider can let customers eat what they want to eat, businesses can sell the food they want to sell, and get income, which for others, there is a reflection of my value.
28	Seeing justice and courage	for example a certain old lady, I have been in two traffic accidents.The most recent one was last week in a community, I don't know how old he was, but he was quite old anyway, he had ordered food and his face was on the ground, and his mouth was bleeding, and he was downstairs in a flat. I turned on the video function of my mobile phone and put it on the navigation stand. In the end I called 120 and I walked away, this is the kind of thing that people just can't do as if they can't see.
Note: Only representative keywords and statements are listed		

Open coding refers to the process of breaking down, comparing, conceptualizing and categorizing the information collected at the beginning of the research, that is, an operational process of breaking up a large amount of information according to certain principles, assigning concepts to it and then putting it back together in a new way. The aim is to identify identical or similar types from the primary sources collected and at the same time to name the types in order to define the concept and dimensions of the type. Open coding involves three steps: (1) conceptualization, where the content of the original comments is extracted, broken up into separate sentences, and coding elements are extracted for these sentences, which in turn undergoes a transformation from generalized to refined language to form initial concepts; (2) conceptual classification, where concepts are optimized, analyzed and filtered to bring together concepts of the same genus and analyse the links between words to form conceptual clusters belonging to the same (3) classification, where the concept clusters are further abstracted and named. We used the free coding function of Nvivo 12.0 to code and label the collected interview data word by word without any researcher's preconceptions or biases, generating initial concepts and discovering conceptual categories from the primary sources. Some of the results of the open coding are shown in Table 2.

Open-ended coding of text, line by line, sentence by sentence, is a process through which concepts and their characteristics and dimensions can be identified and developed. The steps involved naming and categorizing similar events and situations to form categories, resulting in a list of coding codes and categories. The open coding process in this study is as follows, in Table 2.

3.4.3. Spindle Coding

After extracting, analyzing and summarizing all the original interview data sentence by sentence and line by line, the resulting initial categories will be related to each other in a higher dimension through clustering analysis with certain clues and relationships (e.g. similarity, causality, sequence, etc.), thus obtaining a main category composed of several initial categories, i.e. the main axis coding process. In the main axis coding process, special attention is paid to the original context and the underlying meaning of the initial concepts to ensure the rationality of the association between the initial concepts.

In this study, the 28 initial categories were compared and summarized in succession using the 'tree node' function in the NVIVO 12 software, which allows subsets to be summarized and aggregated, and in conjunction with Maslow's Hierarchy of Needs theory, a total of 10 main categories were obtained. This is shown in Table 3.

Table 3. A total of 10 main categories

Main categories	Open concepts	Concept content
Working time	Working time planning	The rider adjusts the time allocated to work according to his actual needs.
	Selecting working time	Selecting working time slots and total working time according to the actual situation and task requirements Working time.
	Adjusting the delivery time	The delivery time for each order is adjusted according to the actual job requirements.
Order tasks	Selecting orders by address	Adjusting the delivery order and the order of delivery according to the address of the delivery Location.
	Adjusting the number of orders received	Reduce or increase the number of orders by actively changing the location, etc.

Delivery process	Proactive information gathering	In order to ensure efficient delivery, some riders conduct surveys of the areas they regularly deliver to, gathering information on access control, roads and so on.
	Planning your own route	When delivering food, riders often do not follow the system's recommended delivery routes, but rather plan their own routes based on their own experience.
Work relationships	Easy relationships with colleagues	Riders find it easier to get along with their colleagues than in their previous jobs.
	Working relationships have changed	Riders feel that their working relationships with their supervisors and colleagues have changed Significantly.
	Building a network of support	Special support networks, such as group chats, are generally set up between riders to distribute orders and help each other with difficulties.
	Building back office relationships	Riders feel they need to build good relationships with the staff who manage the back office to help them do their job.
Customer relationships	Building relationships with customers	Some riders communicate with merchants and customers when they are working in order to achieve quicker pick-ups or reduce bad reviews.
	Adjusting service attitudes	Riders believe that having a good attitude towards customers and merchants will help them to do their job better.
	Respecting the people they interact with	Riders believe that when interacting with businesses and customers, they need to respect each other and they will respect you.
	Personal appearance	Maintaining a good personal image when delivering food helps to build a good customer Relationship.
	Delivering early	When delivering food, some riders usually arrive before the appointed time to make a better impression on customers.
Pay relationships	Distributed by work	Riders see the takeaway as more of a work-based relationship than their previous jobs, as opposed to the fixed salary relationship of their previous jobs.
Career relationships	Career suits you	Some riders feel that the career is a good match for them and therefore they are able to do their job Better.
	Increased Income	Some riders feel that the higher income in return will help them to be motivated to do their job.
Psychological aspects	Adjusting your mindset	Some riders feel that takeaways often face bad situations and need to adjust their mindset.
	Adapting to stress	There are competitive and physical pressures in the delivery industry that riders need to adapt to.

Respect	Kindness of others	Some riders feel respected and understood by the kindness they receive from others in the course of their work.
	Recognition from others	Some riders feel that they are needed by society if they are recognised by others in the course of their work.
Self-fulfilment dimension	Demonstrating self-worth	Some riders see their job as an expression of their self-worth by bringing help to people in need.
	An increased sense of responsibility	Some riders feel that their work brings convenience to those in need during special times and that they have an increased sense of Responsibility.
	Social contribution	Some riders feel that their work contributes to society by bringing convenience to people and boosting the economy.
	Acting in the name of justice	Some riders feel that they often encounter injustice and often offer to help others.
	Providing customer assistance	Some riders feel that giving extra help to customers while doing their job gives them a sense of achievement.

3.4.4. Selective Coding

Table 4. Analysis of three core categories

Core categories	Main Category	Scope Content
Task Crafting	Work time	the overall time that a rider spends on a task and the time allocated to a specific task unit in order to complete it.
	Order tasks	the crafting of the quantity and quality of tasks that a rider has to perform.
Relationship Crafting	Work relationships	the crafting of the rider's work-related relationships with supervisors and colleagues in a gig economy.
	Customer relationships	the crafting of the rider's relationships with customers such as businesses and customers in a gig economy.
	Payroll relationships	the crafting of the rider's labour-pay relationship in a gig economy.
Cognitive Crafting	Career dimension	the crafting of riders' perceptions of their own careers
	Psychological dimension	the rider's psychological crafting, such as stress and mind-set.
	Self-actualisation	the rider's perception of how to realize their self-worth in the workplace.
	Respect	the crafting of the rider's perception of gaining the respect of others and being needed by society in the workplace.

Selective coding continued axially above a higher level of abstraction, the aim of this step was to identify core categories around which other proposed categories could be grouped and

integrated to form a complete 'story line'. Based on an in-depth analysis of the 28 initial concepts and 10 main categories, and a comparison and interaction with the original interview data and relevant literature, it was possible to sort out how riders reshape their work in the gig economy, and to elaborate on the main categories, thus abstracting the three core categories, as shown in Table 4.

3.4.5. Theory Saturation Test

This study used rooting theory to qualitatively analyse the data through 3 steps of open coding, spindle coding and selective coding, and theoretical saturation test to ensure the validity of the study. The interviews were independently coded twice in this study at a rate of one-third.

First, the transcripts of the interview transcripts were analyzed for the study alone, without interfering with each other, and sentences closely related to the study were selected for conceptualization, and the concepts were categorized and further categorized. Finally, the respective codes were cross-referenced one by one to identify the two independent codes, the same and different coded content, adopt the same coded content and compare the different codes, for in-depth reflective reading. The comparisons were made on the basis of a large number of papers, and concepts that appeared less than two times too often to be classification were eliminated in the process.

4. Conclusion

The main results of this study through the procedural rooting approach are as follows.

- 1) In the work scenario of the gig economy with takeaway riders as an example, job crafting has the same dimensions as in the traditional context, divided into task crafting, relationship crafting and cognitive crafting. The inherent meaning changes significantly based on the platform-dependent way of working.
- 2) Underpinned by Maslow's hierarchy of needs, the dimensions present different ways of crafting from low to high levels of need. In the group of takeaway riders, it is not like assembly line labour in the simple sense that they deserve to be valued as a part of society.

4.1. Research Insights and Contributions

Through the generalization of this paper, the authors consider the research insights and contributions as follows.

- 1) There are many riders who have a strong will to reinvent their work, but the algorithmic mechanism behind the platform is too harsh, resulting in no room for crafting and reducing the motivation of takeaway riders. Therefore, the takeaway platform could improve the scope of the algorithm's role in the work process and give riders some freedom to play. Follow-up research could start with the algorithm mechanism and how to better achieve a win-win situation for employees and the platform.
- 2) In addition to job crafting, during the interviews we learned that many riders see the job as a transition, knowing in their hearts that they will not be working for too long. However, they are also suffering from a lack of skills and do not know what employment to go for. Therefore, follow-up research can be done on the willingness and direction to change jobs, and the government and relevant employment departments can do a good job in skills training to stabilize the labour force employment problem.
- 3) Regarding the contribution, this thesis is an exploratory study, taking domestic and international sales riders as the research objects, and understanding their working process and psychological state in depth through interviews, calling attention to the working status of low-skilled workers and better people-oriented.

4.2. Research Shortcomings and Future Prospects

1) The shortcomings of this study lie in the relatively small sample size of the interviews and the lack of detailed steps to dig deeper into the work process due to the high demands placed on the interviewers themselves.

2) Future outlook: flexible employment and the gig economy are inevitable mega trends in the future. Job crafting, as a way for employees to exert their own initiative and reconstruct their work from the bottom up, plays an important role in enhancing job satisfaction and motivation. In the future, corresponding scales can be developed to better quantify the research in the context of the casual labour economy and to explore more fully the mechanisms underlying casual labour job crafting.

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Appendix 1

Interview outline

Interviewee: Takeaway rider who has been working for more than one year

Interview time: 30min

Dear Sir or Madam.

Hello! Thank you very much for participating in this interview. The results of this interview will be used for academic research only and your personal information will be kept absolutely confidential. Your answers are very important to the success of this study and you must tell us what you really think or feel about the questions asked during the interview. Thank you very much for your participation and try to avoid one-question-and-answer interviews. If the interview is valid, you will all receive a 20 RMB WeChat bonus at the end of the interview!

I. Introduction to the questions

Please read the following text and answer the three questions that are included.

The odd job economy refers to the difference between the traditional "9 to 5" economy and the traditional "9 to 5" economy, with short hours and high flexibility, using the Internet and mobile technology to quickly match supply and demand. The odd job economy is an important component of the sharing economy and a new form of human resource allocation, mainly consisting of group work and on-demand work through an app.

Work crafting is a bottom-up behaviour that reflects the proactive nature of employees - taking the initiative to redefine and reshape the content of work, the way they work and the way they cooperate with others, with the aim of reconstructing their work identity and gaining meaning.

In traditional contexts, there is a clear hierarchical relationship with superiors and subordinates, colleagues and clients. In the context of the emerging gig economy, online labour platforms are developing big data-driven AI algorithms for gig workers who exist as self-employed workers in different 'time zones'. In the takeaway delivery process, getting orders through an app becomes more of a scenario of dealing with customers, businesses and colleagues.

Although organizations have clearly told employees their job responsibilities and what they are expected to do, sometimes people make positive changes, including changes in their perception of the work as a whole, in their relationships with people and in their work tasks. Have you ever had one of these moments in the course of your work, reinventing your work to better achieve your personal goals?

II. Answer the questions

One: "Have you ever spontaneously done something new at work other than what your superiors or your job requires? Or have you ever changed a way of working that you thought was not very efficient".

Answer: Yes/No

Two: "Do you enjoy helping others at work? Or do you enjoy participating in work-related social activities? Or are there positive changes that shape working relationships with others".

Answer: Yes/No

III: "Do you believe that your work will contribute to the progress of society? or have a positive impact on others".

Answer: Yes/No

III. Interview questions

1 Hi, can you give us a brief introduction to your background, including your age, city, family situation, education and other basic information?

2-1 What is your current job as a rider like (how long have you been working, which platforms do you mainly work on, and what is your income level? Full-time or part-time? How long do you work per week, per day and how many orders?)

2-2 (Full-time) What did you do before/(Part-time) What is your main job? What do you think are the differences in characteristics between the two jobs compared to that of a rider?

3 What tasks have you done spontaneously at work that were outside the scope of your job description, and what were the times when you worked on your own? When did you encounter a situation where you needed to use your own initiative to complete a task?

4-1 In the traditional context of work there would be relationships with superiors and subordinates, colleagues and customers, with whom you meet regularly, but in the case of odd jobs, the work process is now more through mobile phones.

4-2 How do you feel about your work relationships now, with customers, businesses and colleagues? How do you actively shape relationships, socialize? What are the general scenarios?

5-1 We've been working for so long that our perception of work itself is slowly changing. What do you think it means to take these spontaneous, proactive crafting actions to give meaning to the job? In terms of what it means for the company, for the platform and for others. (Say, too, how do you see the job? What are the moments that make you feel useful, valuable and able to contribute in your work?)

5-2 What were your thoughts when you first started in this job? Does it change anything in terms of the time dimension?

6 Is there anything you would like to add?

Appendix 2

Excerpts from the interviews

Interview 1

2 04:59

Have you done any other work before you were you said you had been riding since you were in high school?

1 05:03

Did work on construction sites, and some odd jobs, doing landscaping, and jobs that were laborious in the factories and plants.

2 05:16

What do you think is the overall difference between the traditional situation and the job as a rider?

1 05:45

I was working on a construction site where the daily pay was fixed and there was someone to watch over me, whereas as a rider I earned more for the more I ran and could take a break when

I was tired, but I couldn't take too long a break and had to be online all the time without supervision. There are always red-hatted bosses and superintendent workers on the site.

The actual fact is that you'll be able to get a lot more than just a couple of days to get a lot more than just a couple of days.

1 06:25

Is there any other time to do the work yourself, to do things the way you want to do them?

2 06:49

Sometimes I don't want to deliver, so I'll take a break at the edge and the system won't check my current location, so I won't send you an order.

But you can't go offline, you have to hang on, he will eventually look at your attendance.

1 07:35

We worked before, and it's not quite the same as in an odd job situation like this. Do you think the shift has had any impact on you?

2 08:33

We are still quite close, sometimes we eat together at lunchtime, or when we are waiting for a meal, the waiting place is random, we get together to chat or something, and whoever's mobile phone comes with a bill, he leaves first and we go on talking. I don't think it's a big deal.

1 13:38

I've been working slowly for a long time, and now, including what you've just told me, I've had a lot of experience with these businesses and colleagues and customers, do you think your job has changed in any sense in terms of time?

2 14:16

When I first started delivering, I thought I would just deliver a meal to him and that would be the end of it, because I had just graduated from high school and I hadn't experienced too many things.

The first thing you need to do is to get a good idea of what you're doing.

1 15:07

What do you think will change in terms of the company, the platform or the people around you?

2 15:19

The first time I went I thought, "I'll only be working for two or three months anyway, I don't need much contact with them and I don't feel I need them.

Now I feel that the relationship between colleagues is more important, for example, if something happens to you, you can have these people to help you, for example, if you have an accident on the road, call your colleagues who have a good relationship and ask them to come and help me.

1 16:06

So having this job makes you feel a little bit more secure inside too. Were there any moments that made you feel valued in this job?

2 16:22

When I was delivering food to them, I felt that during the epidemic control period, many of their families were out of food, and at that time the delivery riders were probably busier and had more responsibility, and they ordered more. At that time I felt that I was quite valuable.

Interview 2

2 17:59

Do you think the shift has had any impact on your work process, like when you are in the office, where you have a hierarchical relationship and meet colleagues and clients regularly, but in the case of odd jobs, you work more through your mobile phone?

1 18:21

We have leaders too, we have station managers. In every company there is one who is subservient to the boss and condescending to the people below. The credit goes to him, the hard work goes to those below, pretty much the existence of such a role.

1 19:51

You want a good kind of business circle or a good resource, why should people give points to you, their employees will be evaluated every month, because the United States group of such large enterprises inside will be evaluated excellent staff awards, including they have some other film benefits, station manager his position may not be high, he has the right to be quite large, completely related to your interests.

2 26:29

Do you socialise with your colleagues around you who are also food delivery riders?

What are the usual scenarios?

1 26:39

The last time someone gave me a box of mangosteen, I couldn't eat it, so I took it to them this summer and they were mean, or they felt like they could not afford to eat such a good fruit.

I talk to them about their normal work, about distribution, because some of them have been doing it for many years and they talk about their experience, but there are no in-depth interviews. When I talk to them, I basically don't express my true thoughts, and I find that it's very easy for them to be upset for a few days over a very small thing, to be mentally consumed all the time.

2 27:50

Do you communicate more with the business side?

1 27:54

The merchants all quite like me, I'd say a bit more realistically, for the reason that you're more educated and people in the community naturally look up to you a bit.

2 28:11

We have been working for such a long time, from the beginning there may be an understanding of the job, to now it will slowly change, how do you think you see the job?

1 28:29

I don't feel ashamed of what I do, including my own colleagues who work during the day and they all know it.

The second point is that I am more tolerant, because I used to be more cranky about design, but now I am more tolerant, and a delivery rider is not quite the most bitter bottom, but it is closer, so I am more able to see the nature of society and the phenomenon.

The third point makes me understand more about the importance of reading, culture and thinking.

The fourth point is that although people may feel that they look down on riders, in this environment, the more obscure the position is, the more it allows the people to eat and drink.

2 32:58

Some people say, "I sleep all day except when I go running orders, I have nothing else, I don't see a future.

1 33:09

That's why they are captive, that's what's exploiting the real compression. He doesn't have any other ideas other than making money and won't say to think about planning for his professional future.

I can also reveal to you about myself, I've always been quite well connected, the one that does light food, because I personally do design. They opened a branch and their bag logo, including the packaging design, I did. This kind of is an unexpected wealth and reward.

1 34:01

The value isn't that you've been a rider or whatever, the common folk at the bottom of society like this, every time I see them, my mind says I have to work hard to make money, I have to improve myself, I mustn't do this in the future, there's really no future in this. From my point of view, they come to show me a kind of warning.

2 42:07

In the group of delivery riders we just mentioned, did you say which moments in your work you felt useful, valuable and contributed?

1 42:30

I'll talk about personal values first, then industry values.

This society is like, you later if you choose to do this job. In one year two years three years your money earned, but you have with peers behind is a social circle and thinking differences, people they contact are cultural office people, who you contact are all delivery boys, nothing you will have what can compete with others, anyway, I will be with this past this will go to tell them.

I think it's possible to give people warmth in my profession. I had a young girl who was depressed, and several times I received his single, often asked me to bring him something, and later added a WeChat with me, I will say to them every time I go over, wish you a good day or something, he will feel very warm, this is a value that you can give to others.