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# Workplace Situation and Well-Being of Ecuadorian Self-Employed

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Abstract: Due to novel coronavirus 2019 (COVID-19), the labor market is going to undergo a profound restructuring. The creation of a new labor paradigm by all stakeholders is essential. This document contributes to the current political and social debates about self-employment, the need for economic growth, and how these labor measures, which are deeply institutionalized, need a change of attitude for an adequate job reconstruction in terms of welfare and sustainability. Currently, policy makers are proposing actions and policies because the new labor paradigm is being designed in the countries of Latin America. This research aims to analyze the JDCS model (Job Demand-Control-Support) and well-being in the self-employed in Ecuador. Unlike previous studies, this research takes a comprehensive approach by considering this theoretical model and the figure of the selfemployed in terms of well-being. The logistic model, using cases of more than one thousand workers, generated estimated results that indicate the existence of a significant effect of physical and psychological demands at work on the balance between well-being and the management of angry clients; the speed of execution; and the complexity of the tasks. Regarding labor control, the ability to solve problems and make decisions for the company are detected as influencing factors; finally, social support is another factor influencing global well-being for the self-employed. These results show that with an effective management of the self-employed labor environment, it is possible to achieve an adequate level of workplace satisfaction.

Keywords: self-employed; well-being; job demand; job control; social support; entrepreneurship; autonomy; Ecuador

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## 1. Introduction

The novel coronavirus 2019 (COVID-19) pandemic has been unpredictable, and its results have not yet been quantified [1,2]. Restrictions on mass gatherings and social distancing requirements have limited entrepreneurship, leading to decreased profits and an increase in the number of businesses that have closed [3]. At the global level, the workforce and specifically the self-employed have been deeply affected by the pandemic. This circumstance supports their precariousness and vulnerability to external shocks due to the fact that the self-employed, before the pandemic, was defined by a clear deterioration in the working conditions of micro-entrepreneurs determined by factors such as subsistence and the need for employment, financial, and economic resources [4]. This has led to a change in the work environment with profound consequences such as increased unemployment and online working [5]. It is critical to identify and acknowledge the difficult conditions that self-employed workers face as a result of the global pandemic. Our approach is based on pointing out which are the labor factors that increase the well-being of the self-employed, so that the actions and measures that governments and companies take

on these members of the workforce are adequate and provide a new labor context based on in sustainability. The consequences that the COVID-19 pandemic has caused in the self-employed should not cause an expansion and amplification of the already known challenges experienced by this work group, based on precariousness, low levels of remuneration and poor working conditions. The pandemic raises the possibility of rebuilding this figure in terms of well-being and sustainability [3,6]. Given this situation, the proposal of solid policies aimed at stimulating economic growth and entrepreneurship, as key agents [7] in future sustainable labor integration processes, should be a priority concern for policy makers [8], based on the protection of the health, safety and well-being of the actors that make up the work environment [9]. Well-being and poverty alleviation are outstanding issues after the adoption of the United Nations World Development Goals (WDGs) in 2000. The Sustainable Development Goals (SDGs) of 2015 are established within this framework—specifically, goals 3 and 8, which combine dimensions such as well-being and decent working conditions. Ecuador is aligned with the SDGs through the National Development Plan, "All a Life", incorporating in its policies actions such as the guarantee of access to decent work and social security, seeking to generate skills and promote job opportunities in conditions of equality [10]. Labor well-being becomes one of the proposals focused on the labor market as a tool to stimulate sustainable economic growth [11] and to be able to face the actual economic challenges through concrete and dynamic actions of social responsibility in the field of well-being and employment [12]. Today, selfemployed workers are at the center of many political issues related to aspects such as sustainability, poverty, human capital, endogenous resources, and employment, which are linked to regional and comparative advantages [13,14]. It is a key dimension in the organization of any modern society in the process of generating innovative social and commercial projects that contribute to social well-being [15,16], and a potential force for the development, growth, and personal well-being [17,18]. Following this idea, companies become dynamic agents of the economy, offering new job opportunities, creating wealth, within modernization and adoption of technological changes [19]. In Latin America, the labor business context is more complex, due to the region's peculiarities in the economic, commercial, technological, and poverty fields [20]. Following this idea, some reports highlight the consequences that self-employed workers have suffered due to the pandemic, including the loss of their jobs and even their homes [21–23]. Evans and Over [23] highlight the difficult situation of the most vulnerable groups in society and more specifically focuses on the poorest countries in the South. According to the Economic Commission for Latin America and the Caribbean (ECLAC), the economic performance recorded in 2019 was poor, with GDP growth of only 0.1%. Although it is extremely difficult to estimate the impact of the coronavirus on growth, a recession of 2.5% to 5.2% is set in 2020 [24]. Furthermore, in Latin America, approximately 130 million workers—that is, around 53% of the employed population—work informally, and this circumstance represents an even greater challenge [25]. Ecuador is a developing country, with high levels of inequality and structural problems at the institutional and productive level [26,27]. Entrepreneurship in this geographical area is centralized in activities related to trade, which are those that have been most damaged by the pandemic and also stood out for presenting low competitiveness, little use of technology, limited innovation, and a majority of self-employed that operate forced by this environment conditions [28]. Ecuador has presented measures of partial and total confinement in the face of the COVID-19 pandemic. This fact has caused the economic activities of the country to have stopped, with the consequent consequences in terms of production, consumption, and employment. In this scenario, the Central Bank of Ecuador estimates a drop in GDP in 2020 of around 7% to 10%, and ECLAC estimates that poverty will increase by about 5%, and inequality will increase by more than 3% [24].

The Job Demand–Control–Support (JDCS) model [29–31] constitutes a quite useful theoretical approach to understand the characteristics of the workplace and its consequences on health [32]. In fact, this model has been used in many job market sectors with the aim of studying a wide range of reactions that cause tension in workers [33–38]. In

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subsequent model improvements, perceived support at work was included as another relevant factor. However, despite the great utility of these models, more empirical evidence is required in certain professional categories, such as the self-employed. Following this idea, the JDCS model establishes that factors such as demands and labor control will affect the development of well-being [30,31,39]. Following this idea, entrepreneurs are characterized by a combination of high demand and labor control [40].

Previous studies indicate the existence of a positive association between well-being and income [41,42]. Other authors show that well-being depends also on other factors such as health, social status, and family and work circumstances [43-47]. Therefore, the literature recognizes that business well-being is due to a large number of factors, beyond the economic factor [48], such as psychological environment [49], job satisfaction [50–52], and a sensation of independence [47]. Previous literature analyzes the well-being of the self-employed in specific geographic areas such as North America and Europe [53,54] but not considering regions such as small developing countries. According to the literature, Ecuador has few studies that analyze the figure of the self-employed worker. For example, the autonomous work of family mothers and the work and family balance have been treated by some authors [55]; informal self-employed workers as a last resort for lowskilled workers indicates that a reduction in poverty could only be sustainable if more and better job opportunities are created [56]. Others study particular aspects such as the financial cost to access formal jobs [57], the minimum wage rate and how it influences the formal and informal rate [58], and the relationship between entrepreneurship and well-being [59–62]. This debate is of great importance in current academic research because it manages to connect well-being and decent work. This relationship is especially important in the current context due to the effects of the pandemic and the need to rebuild the business fabric.

The work model of self-employed workers and its relationship with long-term sustainability are determined, among other aspects, by public policies, labor regulations, and organizational practices. Therefore, the sustainability of the business labor market is determined by the working conditions of the self-employed, which, in turn, delimits well-being [15,63]. The underlying premise of this study is that there are differentiating characteristics for self-employed Ecuadorians that influence their level of well-being. Previous studies of job quality are carried out from the perspective of employed persons [40,64], forgetting the importance of the self-employed in the sustainable development of a developing country.

Specifically, the Republic of Ecuador is among the unequal countries in terms of development in Latin America and the Caribbean [65–67], and to our knowledge, there are no studies using the JDC model on the well-being of self-employed workers in the country, although they have been widely debated in other contexts [68]. In the absence of evidence on this reality [69], it is essential to generate knowledge about this phenomenon due, on the one hand, to the need for reconstruction in sustainable terms and, on the other, to the need to take care of this group that is so vulnerable in terms of precariousness. Policy makers must prioritize decision-making and evidence-based public interventions in order to improve the sustainability of working conditions in terms of well-being [70]. It is essential to create a new labor paradigm by all stakeholders, particularly consumers, governments, and industry itself, that will emerge from the pandemic based on the creation of new attitudes toward work and workers. This raises questions about self-employed workers and how stakeholders are going to approach the reconstruction of the labor market, since there are deeply established aspects of the labor market that were systemic in terms of precariousness. This circumstance must be considered by policy makers, institutions, and markets.

In this context, the measurement and conceptualization of the well-being of the selfemployed worker has not received enough attention despite significant research, over decades on well-being in life and work [15]. There is a gap in the literature regarding the exploration of the relationship between well-being at work and the self-employed within Sustainability **2021**, 13, 1892 4 of 26

a uniform and coherent framework [71], as well as in the mechanisms that lead to well-being [15]. This study attempts to contribute to fulfill this gap by exploring labor well-being in Ecuador from an organizational perspective and considering the perceptions of self-employed workers, which could allow the identification of possible characteristics, based on pre-established regulations and patterns, related to interaction of the self-employed and their work environment. This document contributes to current political and social debates about self-employment, the need for economic growth, and how these deeply institutionalized labor measures need a change in attitude to rebuild a labor model. This article aims to establish the basis for a deep reflection on the COVID-19 crisis, and what factors should be taken into account for the reconstruction of the autonomous labor market, providing a broader point of reference in terms of well-being and sustainability.

This can help understand what characteristics of the decent work model lead to higher levels of well-being within the context of the Ecuadorian self-employed in this period of reconstruction due to the pandemic. From these objectives, the following research question is derived: Do the working conditions of the Ecuadorian self-employed project a work model that reflects well-being in terms of sustainability?

### 2. Theoretical Framework

## 2.1. JCDS Model

The focus of the study is based on the well-being conditions of the self-employed in Ecuador, taking as a theoretical reference base the Job Demand–Control–Support (JDCS) model exposed by [29,30,72]. The JDCS model is a particularly influential theoretical approach in the field of occupational health and hence well-being. According to the concept, the relationship between job demands and poor health depends on the moderating effects of work control and social support. The applicability of the model is evident in numerous studies related to labor demands and their impact on the well-being of workers (for example, [73]).

Under these conditions, the JDC/JDCS models represent how the joint effects of work stressors (work demands or stress) and control at work (freedom of decision or control measures at work) affect the well-being of the self-employed, with the fact of an additional causal factor associated to social support. Therefore, work demands present stressful dimensions (physical and psychological stress), which normally occur in the day-to-day work of the self-employed; the control exercised by the autonomy over the activities it executes, in this case, the control over the execution, is related to the discretionary action and freedom of decision, it is who has the autonomy to carry out and control the initiatives and responsibilities assumed. These and social support, which represents the recognition that it reduces stress in the work environment, can be much stronger in certain work groups than in others due to the implications of senior (colleagues and self-employed colleagues) or minor (employees) social support of emotional ties, trust, and solidarity [29,74].

Similarly, Latino self-employed were ranked in some earlier studies (e.g., [75–78]). Several studies have supported the JDCS model in the context of freelancers (e.g., [40,79]), but there are no studies that analyze entrepreneurship in Ecuador with this model.

Therefore, in relation to these variables included in the JDC model, four situations that affect psychological well-being can be approached: (1) The self-employed, with a workplace characterized by a wide margin of freedom of decision to propose and implement changes in their company, and with the power to assume risks that may determine growth, higher productivity or, in extreme cases, business failure; this can be defined as active work, where high labor demands and high control at work for decision making prevail [30,80], it assumes that the self-employed perceive their jobs as more stressful and mentally exhausting since they work longer hours, have less free time, and more responsibility for their own jobs and income, as well as those of their employees, which would lead to greater mental health problems and a lower level of general health. (2) The

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characteristics that define the work environment with low demands in the workplace and high control in the activities they carry out generate a higher level of well-being; in this case, having freedom of action can increase or reduce the intensity in productivity and effectiveness of its results. (3) High labor demands and under control are related to tensions at work, which could negatively affect the well-being and health of the self-employed. (4) When the activity is generated in an environment of low demand and under control, it is present in a passive work environment, stimulating a decrease in work activities and less ability to solve problems in general [30], which is characterized as routine or boring, and it also leads to health risks [81].

## 2.2. Job Demands, Control, Support and Well-Being in Entrepreneur Context

The self-employed labor sector is a fundamental pillar of a welfare society. From the perspective of the self-employed, the perception they have of their work, which is defined in terms of usefulness for society, is of major consideration. This concept can substantially increase motivation and effort related to job performance [82,83]. In fact, previous research has indicated that people have a higher degree of well-being when completing jobs that they consider useful for society [84]; in addition, the importance of work is positively associated with well-being [85,86]. The well-being of workers is essential for the sanitary condition of any community [87]. Balancing the well-being of the self-employed is crucial for sustainable development [88], since well-being impacts the quality of service and the development of the area [89], and with a low sensation of well-being, the possibilities of suffering health problems increase [40]. Following this idea, the nature of autonomous work embodies the process of self-realization of the worker's human potential through bold, authentic, and self-organized activities that can lead to the fullness and functionality of the human being [63].

The work demands of the self-employed worker are dictated by the economic context, which can cause a decline in health [90] due to factors such as stress and depression [40]. This work group is characterized by high work demands, both physical and psychological. The situation regarding the physical demands of the self-employed reflects intense work activities and stressors [91,92], such as more working hours and lower wages [51,93], excessive work effort and an unpredictable business environment, which are factors that cause a reduction in well-being [15]. In fact, self-employed workers are not under the legislative context of employment in terms of hours of work and job security [94]. Regarding the psychological demands, the self-employed must make urgent and critical decisions for the development of their company [95] and must carry on with their work with a higher intensity than most workers [96–99]. The self-employed has been associated with better organizational performance [100] and persistence due to entrepreneurship [101]. In line with the above, it is suggested that having high levels of autonomy could mitigate the possible risks of work stress if this autonomy is not associated with an excessive dependence on self-employment [102]. From the perspective of job control, there are studies that conclude that this dimension is positively related to business abandonment when the selfemployed does not detect support from their environment [103]. Specifically, Cortés et.al. [75] report that people who are self-employed have a lower degree of satisfaction than people employed in Latin America.

# 3. Research Hypothesis

From a theoretical point of view, well-being conceptualizes the valuation that people perceive of their own quality of life [104,105], including their work situation, personal conditions, values, goals, and aspirations of workers. From this perspective, the academic literature should focus on the analysis of the working life of individuals, and this should be a basic concern for the society, especially in this troubled post-COVID-19 era [106]. The job demand control model (JDCS) identifies three variables of working conditions: employee demands and control of activities and social aspects [74,107]. These theoretical structures identify the key dimensions of work activity, that is, the organizational or

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psychological demands (work demands), the independence that employees enjoy with respect to their functions, the tasks and skills required for this position, and finally, the social support of the supervisor and the worker's colleagues.

The present research aims to explore the well-being of Ecuadorian self-employed workers, analyzing the three variables related to work stress described above. In accordance with the reference framework described in the previous paragraphs and based on the literature review, the following research hypotheses are proposed:

**Hypothesis 1 (H1).** The high job demands faced by the self-employed influence their well-being.

Hypothesis 2 (H2). The high labor control also affects well-being.

**Hypothesis 3 (H3).** The social relationships with their work colleagues faced by the self-employed that is the perceived social support are a cause of their well-being.

**Hypothesis 4 (H4).** The high labor control faced by the self-employed will reduce the effects of job demands on well-being.

**Hypothesis 5 (H5).** Supervisors/co-workers will reduce the effects of job demands on well-being.

The following Figure 1 summarizes the theoretical model and research hypotheses.

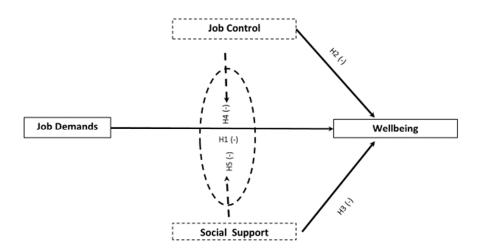


Figure 1. Theoretical model.

## 4. Methodology

# 4.1 Sample Data

The population under study is the self-employed over 18 years of age, residing in the province of Manabí-Ecuador, who carried out an independent activity, be it commercial or services, and who had at least the RISE (Ecuadorian Simplified Registration Regime), which implies voluntary registration in the Internal Revenue System (SRI).

The population is formed by all the self-employees in the region of Manabí (Ecuador), as recorded in the labor department. Although the applicability of the results is possible in this geographical area, the Andine region, which is in Ecuador, Colombia, Peru, and Bolivia, contains many environments with similar characteristics, considering both the physical and the social conditions, so it would be possible to extend the results to a broader area. However, the characteristics of entrepreneurs should be very different. Furthermore, Ecuador is one of the Latin American countries with the most inequalities in terms of economic growth within its own territory and in relation to the rest of the Latin

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American countries [108]. Following this idea, Manabí, according to the latest census [109], is the third province in terms of population with 1.37 million inhabitants; it is considered an important administrative, economic, financial, and commercial pole of Ecuador, whose main activities are focused on commerce, livestock, industry, fishing and highlighting, in addition, the agricultural sector in rural areas as well as tourism, mainly because of its extensive and attractive beaches. Politically, it is divided into 22 cantons, which are distributed over an area of 18,940 km², and it has the highest rate of informal self-employed, specifically 58.5% compared to the rest of the Ecuadorian provinces [110]. This type of self-employed is in the front line in terms of economic and health risks due to COVID-19 [111].

The information was collected using a questionnaire together with a personal interview with each self-employed person of the Manabí. The questionnaire was prepared in October 2020. The data were collected through a questionnaire, which was given to the self-employed. To ensure the validity and construction of the questionnaire, the questions used were based on those of previous similar studies in Europe e.g., [87,112].

The sixth EWCS survey was taken as a reference. This survey is periodically issued by the European Foundation for the Improvement of Living and Working Conditions (Eurofound), in which information related to the employment and health situations of employees and independent workers is exposed at the European level. A structured questionnaire was chosen as the most appropriate data collection method for this study. In an initial phase, the data collection was carried out with a pilot sample to collect the information following the objectives of the research, and its internal consistency was rigorously analyzed. A self-administered closed questionnaire was selected as the most appropriate method of data collection, and items were chosen from similar previous studies (e.g., [113,114]). Thus, the validity of the survey was guaranteed and, finally, two groups of experts (researchers from the management and employment areas) evaluated and helped to choose the elements. Therefore, the validity of the constructed elements was verified twice. Before completing the questionnaire, the self-employed were informed about the academic purposes and the anonymity of their responses. The consent to carry out the questionnaire was verbal. At all times, the anonymity of the self-employed was guaranteed.

The questionnaire was organized into seven dimensions that focus on the quality of work conditions and their work environment such as skills and discretion, physical environment, work intensity, quality of work time, social environment, prospects and earnings. The different variables were measured on a 5-point, where 1 means totally disagree and 5 means totally agree. In a second phase of the survey, the interviewer asked the self-employed for their cooperation and provided information on the objectives of the research. The self-employed completed the survey anonymously and with full autonomy.

The information for the present study was compiled based on a survey applied to a sample, in which the 90,026 registered companies that were distributed in each canton in the province were considered as the population to be investigated; these data are determined by the official statistical body [115]. In this case, for the application of the surveys, we proceeded according to the number of records for each canton, where a higher value of records represents the application of a greater number of surveys, through a proportional allocation, and a random selection in each canton.

To establish the possible relationship between well-being and JDCS conditions, the analysis has been limited to small businesses, with or without employees in Manabí, for whom their work activity represents the main stream of income and family support. The survey based on the European Conditions Working Survey, (EWCS), which was applied to self-employed workers, obtaining a sample of n = 1033 observations. Table 1 reflects with a simple random sampling, on estimating proportions, the expected error would be less than 0.03 with a confidence of 0.95. As the design has been stratified, it is possible to expect better results in the precision of different estimates. Of course, when dealing with part of the whole population, this confidence would be smaller.

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Table 1. Experimental design.

Variables	Data
Population Size	90026
Error	3%
Confidence	95%
Sample size	1033

In relation to the analysis of the sample, of the total of self-employed persons analyzed, 58.2% are men, compared to 41.8% women. Considering the level of study of the respondents, 14.7% claim to have primary studies, 57.4% secondary, 25.1% at university level, and only 0.8% had obtained doctorates. If the business operating time is analyzed, 2% affirmed that it was less than 3 months, 6.8% reported between three and six months, 6.8% reported between six months and a year, 9.5% reported between one and two years, 20.5% reported between two and five years, and 56.4% reported over five years.

The sixth EWCS survey was taken as a reference. This survey is periodically issued by the European Foundation for the Improvement of Living and Working Conditions (Eurofound), in which information related to employment and health situations of employees and independent workers is exposed at the European level.

Table 2 reflects the EWCS recorded variables, according to the constructs proposed.

Table 2. Variables used from European Conditions Working Survey (EWCS).

Construct	Concept	Questions Codes and Text		
Job Demand (JD)		JDF1 Noises so loud you have to raise your voice to talk to		
		people		
	Physcal Job Demands	JDF2 High temperatres, either inside the building or outside		
		JDF3 Breahig fumes, such as solvents or thinners		
	Demands	JDF4 Handling or having direct contact with materials that can		
		be infectious, such as waste, body fluids, laboratory materials,		
		etc		
		JDPS1 Being in situactions that may upset you emotionally		
	Psychological Job	(handling angry customers)		
	Demands	JDPS2 Work at high speed		
		JDPS3 Perform complex tasks		
	Job Control Skill	JCSA1 Solve unforseen problems yourself		
Job Control	Application	JCSA2 Perform monotonous tasks		
(JC)	Job Control	JCDA I make the most important decisions about how to run my		
	Authority Decision	business		
Social	Authority Support	SS It encourages and supports them in their development		
Support (SS)	Tradionty Support	35 it cheodinges and supports them in their development		

In this case, the classification has been made into three main groups according to the dimensions of work demand (JD), job control (JC), and social support (SS), each group with its respective variables, which are structured according to the application of a probabilistic binary logit model, where the predictive results have been obtained using a Jack-knife method developing a specific program based on EViews 10 econometric software. The process involves estimating n = 1033 models, each with 1032 data, and classifying the remaining case to evaluate the predictive power of the procedure. As an alternative method, artificial neural networks (ANN) have been used in this classifying process as an alternative to logit models; the predictive power of the ANN has been evaluated using a large subset of observations not included in the training set. In both cases, the impact on the well-being of the self-employed has been linked to the proposed exogenous variables, JD, JC, and SS, with the corresponding statistical testing.

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Latent variables, proposed in the SEM model, are associated to numerical variables from the EWCS.

- 1. **Job Demand** (JD) is associated with seven observable variables, which are classified into two specific fields: demand for physical work and psychological demand. The first group is linked to four variables obtained from questions of the type, "To what extent are you exposed to ...?" asking data about the conditions of the workplace of the self-employed. These are related to the physical environment (vibration, noise, high temperatures) and exposure to biological and chemical risks (breathing fumes, gases, handling products and chemicals and materials infectious such as waste, body fluids, laboratory materials, or similar). The second group is made up of three variables, and they are focused on questions such as: "To what extent does the development of your activities in the business imply ...?", or "Could you tell me if your job depends on ...?", and "The work in your business/company implies..."; those questions allow arguing about the intensity of work, the quantitative demands of work, the determining steps in interdependence, and the emotional burdens due to the demands at the workplace.
- 2. **Job Control** (JC) is associated with three observable variables, which are classified into two groups: application of activities and decision authority. The first group is composed of two variables, and they are disaggregated from the question "Generally, work in your business/company implies..." This construct refers to the domain and work skills in the performance of the work activities (monotonous or complex) to solve unforeseen problems, and to the flexibility adopted for the implementation of new ideas. The second group, composed of a variable, is generated from the question, "To what extent do you agree or disagree with the following statements?", from which the scope of authority is established; it is linked to the autonomy to take decisions regarding the performance of their activities, the working methods, the speed with which they are carried out and the productivity to be achieved.
- 3. **Social Support** (SS) is made up of an observable variable, which is focused on the question, "To what extent do you agree or disagree with the following statements?", including, You respect your employees...", on which the behavior assumed as boss within the workspace is argued, the ability with which you incur to motivate and encourage your staff to work as a team and achieve the proposed goals, as well as contribute to the effectiveness of work by supporting them in their development and work performance. From this scope, the position of the boss in support of their collaborators is analyzed, understanding this as a perceived condition of harmony and well-being in interaction with their collaborators and also with their autonomous colleagues, because many of the respondents participate in the same branch of activity.
- 4. **Well-Being** (WB): The well-being variable is linked to different factors that include questions obtained from the EWCS and related to a positive state of the autonomous individual, such as, "How have you felt since you started your business?" These questions treat different aspects of feelings in the workplace; these include concepts such as the happiness sensation in the workplace, feeling in a good mood, or calm and relaxed; also, some others aspects such as feeling calm and relaxed, active and energetic, woken up fresh and rested, or interested things in daily life, which are conditional to the fact that the happiest people have a job that provides them with satisfying experiences [116], but that also from an integrative perspective that can reflect positive and negative affective conditions of an individual, and the corresponding psychological functioning. The latter is analyzed from the perspective of work control (autonomy) exercised in their work performance.

The items used in the construction of the well-being variable are shown in Table 3. Of the total of cases analyzed, 53% stated that they reached an adequate level of well-being, compared to 47%, who are affected by low well-being. If the results are analyzed

by the sex of the individual, it is observed that the proportion of men who consider themselves satisfied is somewhat higher than this figure for women, with a differential of 6.6%.

Variable	Codes	Questions
	WB1	Feelings of happiness and good humour
	WB2	Feelings of calm and relax
Wellbeing	WB3	Feelings of active and energetic
	WB4	Feelings of the freshness and rest
	WB5	Daily life filled with many interesting things

A description of the variables used to test the hypotheses discussed above is shown in Table 4. Regarding the averages of the factors of the JDF dimension (four variables), where the minimum values range from 1 to the maximum values of 4.50, it is observed that the global mean is 2.588 for the set of variables, having a standard deviation of 0.65. This means that the impact on well-being is potentially higher, controlling factors such as noisy environments, high temperatures, breathing vapors harmful to health and the handling of infectious and polluting materials are considerably present at work. Regarding the averages of the JDP dimension (three variables), which range between 1.33 and 5; their global mean is 3.27 and its standard deviation is 0.769. Therefore, self-employees are potentially little or somewhat exposed to factors that can annoy them, such as angry customers, performing complex tasks, and working at high speed, which can potentially affect their well-being.

In relation to job control, for the two variables of JCSA, there is a global mean of 4.56 and a standard deviation of 0.839. In this same line of the JC, the average of JCDA (associated to just one variable) is 2.68 and the standard deviation is 0.623. In this case, this situation represents that the self-employed persons' decisions are carried out by themselves, as they have the freedom to choose what should be done in each circumstance. Therefore, they have full control to run their business, and they tend to feel fine, which affects positively their well-being.

In the case of the SS dimension, it is associated with a variable with mean 3.56 and standard deviation of 1.421. In this case, it is presumed that social support is generated in the microenterprise field, from the owner to his collaborators, but in addition, it is manifested with his autonomous relatives because most of them share the same branch of activity; this could be referred to as "harmonious work" with their collaborators and work colleagues, and this situation leads to think that the SS is somewhat separated from the average and moderately affects positively their well-being.

Table 4 presents the description of the variables used in the model proposed. The JDPH construct is linked to four variables related to physical job demands, the JDPS construct is linked to three variables, while the JC construct is linked to two variables of job control skills and one of authority in the decision process. As the original variables are considered numerical valuations, the corresponding descriptive parameters are presented.

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Variables				Parameters	3	
		JDPH	JDPS	JCDA	JCSA	SS
N -	Válid	1033	1033	1033	1033	1033
IN	Lost	0	0	0	0	0
Media		10.3524	9.8064	4.5634	5.365	3.5634
Dev. Deviation		2.60026	2.30799	0.8388	1.24647	1.42108
Variance		6.761	5.327	0.704	1.554	2.019
Asymmetry		-0.378	0.335	-2.639	-0.262	-0.692
Standard error of skewness		0.076	0.076	0.076	0.076	0.076
	25	8	8	4	5	3
Percentiles	50	11	10	5	6	4
	75	12	11	5	6	5

#### 5. Results

To assess the validity of the research hypothesis, two types of modeling were used: logit models and artificial neural networks. The endogenous variable to be analyzed is the well-being, which is transformed in a binary variable denoting an adequate level of wellbeing or the lack of it. It was specified as dependent on the three constructs JD, JC, and SS. The logit binary choice model [117–119] allows us to analyze the influence of causal exogenous variables on a binary endogenous variable. Subsequently, and in order to carry out the testing of the proposed hypotheses, the corresponding Z-tests were applied with positive results. Then, an artificial neural network is estimated to corroborate the effects of the three constructs introduced in the logit model, to forecast the well-being of the selfemployed. Artificial neural networks (ANNs) are used in numerous classification problems, as with the binary variable representing the presence or absence of well-being. In the ANN, wellbeing (WB) constitutes the output layer, while the constructs are included in the input layer. There are some alternative multivariate techniques that could be applied: discriminant analysis or support vector machines. Finally, the coefficients obtained by both methods are evaluated in order to determine the priorities that each self-employed grants in the importance of their welfare situation.

## 5.1. Binary Logistic Regression Model

The binary variable WB is linked to a clear feeling of well-being in the self-employed. In the sample, 547 (53%) consider themselves enjoying a high or very high well-being, and 486 received lower marks when the measured variable is up to two points. Over this, the consideration is of high level of well-being.

The estimated model is presented in Table 5. As can be seen, all the p-values in the Wald test are very low, less than 2.5%, and in most of the cases, they are less than 0.1%. The signs of every coefficient is what could be expected, as they indicate the sense of the influence of each variable on the probability of obtaining a high degree of well-being.

Table 5. Estimated model.

Variable	Coefficient	Std. Error	Z-Statistic	Prob.
С	-1.028.068	1.197.087	-8.588.084	0.0000
JDH1	0.458283	0.131056	3.496.844	0.0005
JDPH2	0.367339	0.104553	3.513.428	0.0004
JDPH3	0.626949	0.168813	3.713.876	0.0002
JDPH4	0.753204	0.164460	4.579.854	0.0000
JDPS1	0.222068	0.065489	3.390.902	0.0007
JDPS2	0.266075	0.064430	4.129.675	0.0000
JDPS3	0.383952	0.083450	4.600.956	0.0000
JCSA1	0.196626	0.086215	2.280.660	0.0226

JCSA2	0.299025	0.085704	3.489.035	0.0005
JCDA	0.191025	0.086617	2.205.386	0.0274
SS	0.651075	0.270967	2.402.784	0.0163
JDF*SS	-0.054312	0.026392	-2.057.879	0.0396
RMF2 = 0.2368		AIC = 1.080409		BIC = 1.14258

It should be noted that the fundamental principles of the JDCS model are confirmed. Labor demands, work control, and social support are related with the response variable, that is, the WB indicator. However, these results should be viewed with caution because the statistically significant variables are those related to noise ( $JDPH_1$ ); high temperatures ( $JDPH_2$ ); the presence of vapors ( $JDPH_3$ ); and the manipulation of infectious materials ( $JDPH_4$ ). In relation to psychological demands, the significant variables are related to relation with clients ( $JDPS_1$ ); speed when carrying out tasks ( $JDPS_2$ ); the possibility to solve problems ( $JDPS_3$ ); ability to make decisions about how to run the business ( $JCSA_1$ ); ability to make decisions ( $JCSA_2$ ); collaborator support (JCDA); and social support (SS). The interaction term is a decreasing influence of SS that occurs in the opposite direction to the JDFs variables.

An examination of each of the individual components shows that physical demands are more important than psychological demands in predicting *WB* in self-employed Ecuadorians.

To measure the forecasting power, the two-way classification table usually obtained with the sample data used to estimate the logit model has been modified to avoid using the same sample data employed in the estimation process to classify this set of data. A jackknife method, which is usual in discriminant analysis, has been introduced: leaving one case out of the sample, a logit model is estimated and then used to classify the omitted data, to avoid the bias introduced if this case had not been left out of the estimation procedure. The process is repeated n = 1033 times, leaving out a different case each time. The obtained classification table (using a cutpoint of 0.5 in the classification) is presented in Table 6, where 74% of the cases are well classified with respect to the well-being variable. The computational procedure to use this jackknife method is not implemented in the SPSS package used, so a program was developed with the econometric software EViews. When using the model to forecast the well-being of the sample data, the following classification table is obtained.

Table 6. Forecasting power with the logit model.

Variables	WB = 0	WB = 1	Total
$P(WB = 1) \le 0.5$	354	134	488
P(WB = 1) > 0.5	134	413	545
Total	486	547	1033
% Correct	72.84	75.50	74.25

Using, as an alternative method, a discriminant analysis procedure, the proportion of correct classifications is well below those obtained with the logit model.

## 5.2 Artificial Neural Networks

In the neural network presented, the input layer includes the same exogenous variables as those used in the logit model; there is a single hidden layer with five neurons and an output layer with the binary variable WB. Thus, the topology proposed is a multilayer perceptron-type (MLP) network (11 + 1, 5, 1). In the graph (Figure 2), there are two bias variables ('Sesgo') to incorporate a constant when carrying out the linear combinations of the output of each layer. The activation information, which controls the output of each neuron, has been the hyperbolic tangent in the hidden layer.

In estimating the network, practically 80% of the data have been used, which forms the so-called "training set", and the rest have been used to validate the predictive capacity

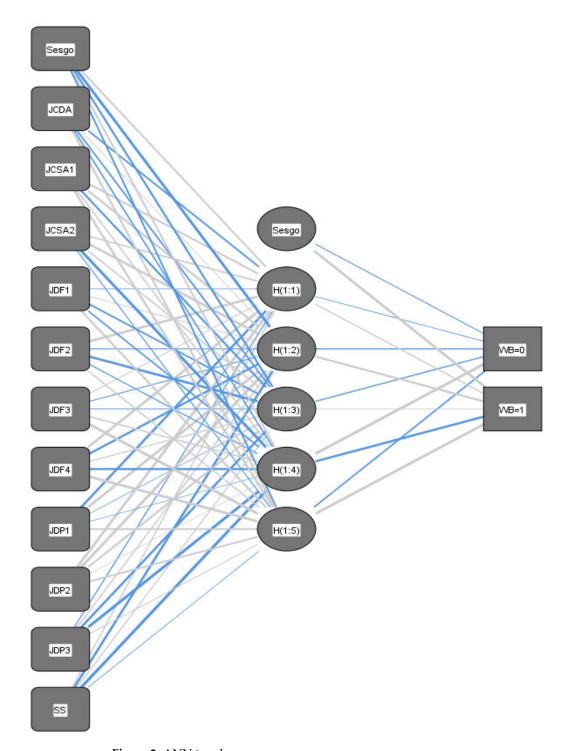
of the network, forming the "test set". In the logit model, there was a training set of 1032 observations and a test set with the remaining case, although, with the jackknife method, 1033 models were estimated, leaving out a different case in each of them. This strategy is not possible with neural networks due to the computational load it would imply, and the usual procedure is the one employed to divide the sample in the two sets of data.

The summary of the model and its classification table are presented in Table 7. The network model provides a proportion of correct predictions higher than that obtained with the logit model: 79.3% in the test set, improving the predictive capacity in the two categories of the *WB* variable.

<b>Table 7.</b> Forecasting power with the artificial neural networks (ANN
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Example	Observed	Predicted		
		No	Yes	Percentage Correct
	No	265	75	77.9%
Training	Yes	103	285	73.5%
	Overall percentage	50.50%	49.5%	75.5%
	No	114	32	78.1%
Test	Yes	31	128	80.5%
	Overall percentage	47.5%	52.5%	79.3%

Analyzing the importance that each of the explanatory variables confers to the prediction of the WB, it is observed that there are several factors linked to the job demand physical construct that present the greatest joint contribution, which is followed by those associated with job control decision authority. In lesser importance are those factors related to physical demands and job control for both the skill application and authority decision, and for social support.



**Figure 2.** ANN topology.

The estimated parameters for the ANN are presented in Table 8.

Table 8. ANN parameters.

Predictor	Variables	Parameter Estimates		
		Predicted		
		Hidden cloak	Outpu	ıt layer
	Sesgo	H(1:1) H(1:2) H(1:3) H(1:4) H(1:5) H(1:6) H(1:7) (	BinBie = 0)	(BinBie = 1)
	Sesgo	-0.109 0.237 -0.395 0.537 -0.333 0.602 -0.219		
	JCDA6	0.323 0.780 0.243 0.640 0.081 -0.234 0.009		
	JCSA1	0.098		
	JCSA2	-0.098 -0.642 0.435 0.609 0.560 -0.033 -0.017		
	JDF2	$-0.426 - 0.585 - 0.503 \ 0.444 \ -0.657 \ 0.086 \ -0.316$		
Input layer	JDF3	-0.124 0.189 -0.699 0.438 0.055 -0.024 0.354		
	JDF5	-0.276 0.558 -0.802 0.512 0.544 -0.132 -0.061		
	JDF8	-0.820 -0.352 -0.125 0.122 0.143 -0.115 0.391		
	JDP1	0.200 0.205 0.038 0.038 0.462 0.576 -0.124		
	JDP2	0.322 -0.099 -0.042 0.264 -0.21 -0.615 -0.362		
	JDP7	$-0.039 - 0.556 - 0.401 \ 0.478 \ -0.336 \ 0.226 \ -0.320$		
	SS3	-0.336 -0.512 -0.649 -0.036 1.212 1.040 .087		
	Sesgo		-0.126	0.131
	H(1:1)		-0.491	0.353
	H(1:2)		0.436	-1.115
Hidden cloak	H(1:3)		0.799	-0.261
	H(1:4)		-0.494	0.150
	H(1:5)		-0.461	1.060
	H(1:6)		0.678	-0.232
	H(1:7)		-0.272	-0.320

To review the hypotheses, the coefficients obtained from the explanatory variables and their exponentials, called ODDS ratios, will be used. The analysis of these ratios allows comparison with each other in order to know which variables have a greater or lesser influence on the probability of occurrence of the event, i.e., be satisfied

Thus, when these ratios are greater than unity, the probability of occurrence of the aforementioned event increases; on the contrary, if they are less than unity, they reduce said probability. In the case of the latter, it is convenient to calculate the inverse in order to compare it with the rest of the ODDS ratio.

As can be seen in the estimation of the logistic model and the neural network, it is confirmed that the variables linked to the analyzed factors are significant. Therefore, it can be contrasted that the job demand (physical and psychological), job control (authority decision and skill application), and SS constructs are directly related to the level of WB.

In all cases, the associated coefficients show positive signs and ODDS ratios greater than one. Thus, it can be specified that an increase in the value granted to each and every one of the analyzed characteristics improves the worker's level of well-being, keeping the rest of the factors constant.

More specifically, and analyzing each of the dimensions separately, it is observed that the factors linked to job demand (physical and psychological) of the original linked variables were measured on a five points, with 1 being social aspects favoring dissatisfaction, and high values of the variable relating to highly motivating social situations. It is observed that the ODDS ratios oscillate between 1.2 for the case of JDF2 and 1.7 for JD4, which indicates when the associated factor increases by one unit, the probability of manifesting well-being increases by 20% or 70% respectively. Likewise, it is observed that the ODDS ratios, in the case of psychological demand, fluctuate between 1.25 for JDP1 and 1.48 for JDP3, which means that an increase in one unit of these factors can be considered an increase associated with well-being in 25 or 48%. This statement allows us to know what factors influence to a greater extent the improvement of well-being.

In relation to the factors linked to job control (Skills and authority decisions), it is clear that the original variables linked to these factors were measured, where 1 represents a negative situation of well-being and 5 represents a condition of positive impact. The ODDS ratios in relation to these factors are focused on 1.26 for JCSA1 and 1.35 for JCSA2, which implies that an increase in one unit of these factors entails the probability that a certain level of satisfaction associated with well-being will be generated in individuals in 26% to 35%, respectively; similarly, the ODDS ratio appears with a result of 1.22 for the JCDA factor, which indicates that an increase in one unit, the marginal variation of this factor, with respect to welfare, will increase by 22%. In this case, the results are also significant, which implies taking the measures to achieve greater advantages of the job control.

The factors related to the social support dimension (support from authority) were measured on the other variables with 1 being social aspects favoring dissatisfaction and high values of the variable, which are social situations very motivating for its estimation; the SS factor appears with an ODDS ratio of 1.17, which means that an increase of one unit in this factor will have a marginal variation of 17%, which represents that the support of authority generates a certain level of well-being, which is significant, but which will allow focusing the conditions of social support with greater direction in this sector.

#### 6. Discussion

The purpose of this work was to analyze the different characteristics of the working conditions of the Ecuadorian self-employed and whether these conditions influence their well-being to create the basis for an adequate reconstruction of the sector. The self-employed are considered as key agents in economic growth [120]. According to Koellinger and Thurik [121], entrepreneurs are agents of change and economic development, who anticipate and even trigger economic growth, but in turn, many business owners carry out only marginal activities and escape unemployment through entrepreneurship. Following this idea, according to Audretsch and Keilbach [122], there are key factors that relate entrepreneurship with discriminatory variables in each region such as ethnicity, language, religion, policies, and the quality of institutions (for example, corruption, public freedom...), which is why they are a priority in policies to promote economic development through actions based on entrepreneurship [40,94,123]. In general, cross-cultural results generally support the idea that job stress and available resources differ between cultures [124]. Curiously, little research on culture and work stress and well-being has been done in the South American context.

The occupational notion of self-employment emphasizes that this sector's workers manage (beside being owners) their business at their own risk and expense [125]. Some authors classify self-employment as stressful, and it is possible that this represents a reality according to the functions or roles that they perform. However, there are studies showing that the Ecuadorian self-employed, where precarious working conditions and the physical environment in which it unfolds, is not the most appropriate, nor does it compete with the entrepreneurial spirit of developed countries [126]. This is because self-employees work in a complex and uncertain environment, working long hours and having to perform a wide range of tasks [127]. There are some attempts describing the labor market in Latin America using objective indicators such as wages or hours of work [128,129]. There are studies that link wellness and health [130] to self-employment [131]. Following this idea, the literature shows that from intercultural management, analyzing countries such as Canada and Pakistan, the self-employed experience lower levels of work-related well-being, indicating that the self-employed spend less time with the family than employed persons. Jamal and Cardon and Patel [132,133] show that the self-employed have more stress than employees but that this situation has a positive impact on incomes despite a negative impact on physical health [133]. In agreement with [134], self-employed women reported poorer physical health and well-being than men. These job stressors are

associated with mental health problems. Torrès and Thurik [135] add that the effects that entrepreneurs have on well-being are cyclical and can have dynamic effects, where factors such as the euphoric start of a company give way to the monotony of running a business. Specifically, Cortés et al., Graham and Feltonab [75,136,137] report that people who are self-employed have a lower degree of satisfaction than those employed in Latin America. In Latin America, there are some research studies analyzing labor force status as a determinant of individual's subjective well-being, finding different results. Using data derived from the Latinobarometro survey of 2000 and 2004, the work of Graham and Feltonab and Graham and Pettinato and Lora [136–139] differentiated between employed, self-employed, and other non-active labor status, showing that in Latin America, they enjoy on average less well-being than the employed, and they also argued that workers in the self-employment sector choose this labor option due to the absence of more secure employment opportunities and live a precarious existence in the informal sector.

To examine this issue among the self-employed, the current study adopts the JDCS model as a frame of reference, developing several logistic regression and ANN models that attempt to explain the effects of labor demands, job control, and support.

First, with respect to Hypothesis 1, a significant effect of physical and psychological demands on WB is confirmed. The physical demands that affect the self-employed the most are loud noises, high temperatures, breathing vapors, handling or having direct contact with infectious products, such as waste, body fluids, laboratory materials, and psychological ones related to angry customers and the speed at which they must perform tasks, and complex tasks. Boyd and Gumpert [140] have shown that most self-employed encounter physical problems at least once a week (such as indigestion, insomnia, and headaches), mainly because they feel they are responsible for their business and their employees. These job demands are independent of whether the company is performing well, suggesting that the general daily tasks and challenges self-employed must handle, and the accompanying workload in particular, increase the likelihood of experiencing stress. Boyd and Gumpert and Eden and Harris et al. [140-142] show that self-employment, despite its numerous other advantages, does not provide workers with the greater psychological benefits promised by the American dream. According to the World Health Organization, low work well-being is one of the most important causes of absenteeism, turnover, and low performance in the workplace [143], which in the case of the self-employed worker is related to the closure of the exercise. The physical and psychological demands that self-employed workers face are well known, which is why they have to work longer working hours and have less time for leisure activities than salaried workers. Millán et al. [144] identify different types of job satisfaction between self-employed and employed workers, so much so that Millán et al. [145] suggests that when the figures mentioned above are mixed (self-dependent), they are characterized by less control of work than selfemployed workers, greater demands than paid employees and, in general, worse job outcomes than both. Specifically, in relative terms compared to nearby countries such as Peru, Colombia, or Chile, Ecuador has some lags that make it difficult to establish and stay in business over time. On the other hand, the country has comparative advantages regarding infrastructure and entrepreneurial intent. However, the country has limitations in relation to the regulatory environment, regulations around opening and closing businesses, online businesses, and innovation [146,147]. For other categories of self-employment, the economic insecurity and lack of stability associated with precarious jobs prevent people from considering their occupation as an opportunity for personal growth or a source of wellbeing. This latest evidence agrees with the findings of Graham and Feltonab [136,137] and Graham and Pettinato [138].

The results of our study indicate that the self-employed experience a similar tension due to physical and psychological demands, although the physical ones are slightly higher, which is perhaps because most of the activities carried out by the self-employed in Ecuador require a great physical effort for the economic activities to which they are engaged. Similarly, the stress they suffer in their businesses includes family and social

obligations; although family demands are not necessarily negative, they can turn into work–family stress when there is a disparity between work and family demands [148]. Buttner [149] delves into stress management, indicating that it may be due to conflicts in the balance of work time, which is why it is suggested that entrepreneurs use coaching to relieve this tension at the end of the day. This is the result of having a limited amount of time and attention to give to these two demands due to factors such as atypical hours that include shift work, weekends, and night duty. These factors cause a decrease in well-being that manifests itself as less organization, exhaustion, work stress, and dissatisfaction [62].

Hypothesis 2 of this research was examined in a second phase aimed at demonstrating the effect of labor control on well-being, and Hypothesis 4 of this research was examined in a second phase intended to demonstrate the modulating effect of job control on well-being. The results of this study confirm that imposed problems, monotonous tasks, and decision-making affect well-being, which suggests that increasing adequate time management and perception of the risk derived from their activity will improve their mood, vitality, and interest in general, thus cushioning the direct effect that demanding work has on stress and that excess responsibility has on well-being. According to Prottas and Thompson [150] and Fasone and Puglisi [151], self-employment, whether as owner or self-employed, can allow individuals to achieve greater autonomy than they would have as employees. However, this study highlights the pressure associated with owning a small business, which detracts from the advantages of having autonomy, indicating that it is a double-edged sword. Furthermore, entrepreneurs have a higher level of stress in relation to the workload and not so much with the ambiguity or underutilization of skills, Buttner [149] indicating that this laboral category is characterized by heavy workloads, long hours, and a role self-established in the organization. For some Latin American self-employed workers, the autonomy and flexibility of their occupation seems to be considered an advantage compared to the employed. This is the case of the self-employed and entrepreneurs, and they coincide with the findings of Lora [139]. Other studies show that in Latin America, some workers may prefer to be self-employed rather than salaried workers because this generally means that they will not be contributing to social security systems (such as pensions, unemployment, or disability insurance) [152].

Therefore, this research empirically confirms that the lack of organization in the management of problems, as well as the need for an adequate risk analysis, causes the selfemployed person not to be able to make their own decisions, adapting them to an adequate work schedule in the workplace, which is time that allows the management of tasks with an increase in their dynamization. These aspects have a negative effect on the wellbeing of the self-employed. These results are in line with the study realized in Latin America by Salas et al. [153] and Greco et al. [144], who show that greater control in the workplace generates a better WB, especially when the individual is able to control their working hours and/or experiences an increase in calendar flexibility. For the health of the selfemployed, their work activity is a priority that reduces their well-being and causes them to have health problems and stress greater than those of salaried employees [154]. This extreme and rigid dedication causes a high level of stress, poor health, exhaustion, a feeling of lethargy, and depersonalization [91]. Rauch et al. [155] and Semerci [156] reported that the recognition of business opportunities presented by the self-employed has been associated with knowledge and motivation. More recently, Nambisan et al. [157] emphasize the need to develop a greater understanding of self-regulation in entrepreneurship, mainly because self-control has not been considered as a key factor in the performance of the self-employed [158].

Hypothesis 3 of this research aimed to verify that social support benefits WB. This effect is confirmed in the support of colleagues; that is, the negative effect on WB is mitigated when the support of colleagues or collaborators is available. In conclusion, the physical and psychological demands derived from the figure of the self-employed in relation to WB are reduced if the self-employed have the support of their collaborators. Mette et al. [159] reached a similar conclusion by indicating that the emotional support that the

self-employed have from their social network affects well-being through mechanisms related to culture. On the other hand, Brüderl and Preisendörfer [160] and Arregle et al. [161] show how the support of spouses, family, and friends increases the probability of survival and growth of the company. Social support is decisive in an occupation in which cooperative work occupies a prominent role. Caines et al. [162] and Casey [163] points out that in Japan, many older workers make the transition to self-employment with the support and approval of their organizations.

## 7. Conclusions and Limits

Two main motivations led us to focus our analysis on the Ecuadorian Manabí entrepreneur: his high weight in the Ecuadorian economy [164] and the new labor economic context that arose due to the pandemic in precarious terms [55]. The self-employed have been affected by the COVID-19 crisis in many different ways. It is no coincidence that in many countries, the self-employed are the ones that have been affected the fastest by the quality of demand and the political decisions and actions derived from the pandemic due, with the result of the closure of numerous businesses, despite this labor figure being key for the future growth of the countries [25]. From an economic perspective, Latin countries are used to facing negative external shocks; however, it is currently one of the areas most affected by the pandemic [25]. These circumstances pose challenges for the self-employed and for the future self-employed in terms of creating new economic activities [165]. Faced with this reality that we are in, we wonder how these circumstances will affect future business development, specifically how it will affect potential entrepreneurs our potential business creators.

In this article, we start from the perspective that COVID-19 can be a transformative opportunity for self-employed due to the new thought processes posed by the pandemic. By adopting this perspective, the well-being of the self-employed is viewed as a holistic process, rather than seeing the COVID-19 crisis as an opportunity to pay more attention to the importance of self-employment well-being.

This study has important theoretical and practical implications for the self-employed in Ecuador. At a theoretical level, understanding how the JDCS model works is an important agent for the reconstruction of the economy in order not to continue perpetuating errors in the labor model and avoid their systematization, which performs complex tasks that can decisively contribute to improving the wellbeing of self-employed persons subjected to intense labor demands. From a practical perspective, the findings of this study corroborate the idea that labor demands, labor control, and social support together affect the well-being of the self-employed, especially if the worker can promote a change in his situation through risk analysis and self-management.

Consequently, the self-employed must analyze the labor factors that affect WB.

Therefore, based on our analysis of the current environment in Ecuador and the consequences that our conclusions have for the self-employed workforce, a series of conclusions related to COVID-19 are identified. In the first place, the work environment of selfemployed workers poses precarious situations and physical risks for these workers. Specifically, due to the lack of adequate regulation on occupational risk prevention by the public administration, there are situations of vulnerability for this group. The reality is that since there is no mandatory regulation and inspections that require the self-employed to implement this regulation, working conditions are deeply problematic and dangerous for this group. However, it is unlikely that these circumstances will change when the pandemic passes because it requires a profound reformulation of the regulations in terms of the prevention of occupational risks, and governments will prioritize economic growth. Following this idea, it is worth considering whether the time has come due to the pandemic, and due to this context of reconstruction, where governments propose labor regulations that were pending or were problematic to be carried out, such as the expansion of the labor rights of self-employed workers. In addition, the pandemic has had a great impact on the most disadvantaged communities, especially in the informal sector of the Sustainability **2021**, 13, 1892 20 of 26

South American countries. Informal sectors in the Global South have shown great resilience to previous crises (for example, the Manabí earthquake in October 2019), and a rapid rebuilding took place. However, the nature of self-employment in the informal economy is so vulnerable that it is based mainly on family livelihoods, and it is this factor that can be key to their resilience. Wholesale structural changes are needed in society, industry, and business opportunism. The post-COVID-19 economic reconstruction can be driven by entrepreneurship or by a large growth of large companies, causing a reduction in formal and informal self-employed. Following this idea, there is already evidence that the number of self-employed has already decreased under the shadow of the pandemic.

Self-employed must explore new tools and techniques that provoke a new perception and work management, in which the risk associated with daily activities decreases through the control of these activities; this action is essential because self-employment implies direct contact with society and is key to sustainable economic growth. Any progress in this sense (for example, the creation of labor protocols through specific training) will lead to adequate labor control, which should translate into a better WB. Investing in training for the self-employed in relation to internal risk management will improve health and stress-related aspects. In addition, the self-employed must promote a good social environment in their workplace; in addition, factors such as family and friends influence the management and decision-making of the self-employed. These strategies should reduce work stress and, as a result, increase workers' WB.

Policy decisions during the first months of the pandemic offer a premonition about how the crisis can unfold in a workplace context. In most countries, restrictions on movement and travel were tentatively relaxed from mid-April onwards (with some increase in infections). The self-employed have been allowed to open their businesses and move to be able to continue with the economic activity after justification. Depending on the countries, they have been granted aid to cover the losses caused by the suspension of the activity and the workers in their charge. Tests and regulations must be carried out in relation to all sanitary regulations. The work related to these workers is of high impact in health terms, and that is the greatest risk for the re-entry of their businesses to the post-COVID-19 world. It is unlikely that we, as a society around the world, will abandon our relationship with this figure, but on what terms are society, institutions, and organizations going to engage with self-employed workers?

This research has its limitations, and a qualitative analysis is required to know if the conditions of the work environment, public policies, education, and economic crises, among other aspects, may be affecting the dynamics of the self-employed in their working conditions, in such a way that they generate lights for the sustainability or survival of businesses. In the case of this study, a cross-sectional approach was considered, which can cause investigative biases of temporality, meaning then that it was considered only in a certain time, in which they were consulted about the working conditions of the self-employed and not precisely how sequential or phased study that, according to current conditions (pandemic), warrants an in-depth analysis of the well-being and working conditions of the self-employed in Ecuador. It is also important to indicate that the area of influence of this study was affected in 2016 by a natural phenomenon (earthquake) that caused millions in losses, which generated as emerging measures the policies of reconstruction and economic reactivation, among which included the creation of companies with the participation of the popular and solidarity economy. Many of the businesses observed were started from this initiative [166], which in the future could generate a longitudinal study regarding the autonomy and sustainability of business from this perspective. In general terms, understanding the complex relationship between the figure of the self-employed and well-being, being subject to deep reflections, which means potential ground for future research. Therefore, it will be relevant that it be explored carefully in such a way that the term well-being becomes operational in this field [9,40,99].

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