Junio 2022

WP7-2022-003
N° de serie

DOCUMENTO DE TRABAJO

Making sense of well-being as a proxy for informality: Differences in conceptualization and measurement

Autores

Lina Marcela Gómez Julián David Rodríguez David Anzola

COLOMBIA CIENTÍFICA
Conocimiento Global para el Desarrollo

ALIANZAEFI
Economía Formal e Inclusiva

Making sense of well-being as a proxy for informality: Differences in conceptualization and measurement

Lina Marcela Gómez Núñez[1], Julián David Rodríguez Corcho[2], David Anzola[3]

Context

Although informality has been found to worsen individual and social economic outcomes, informal workers may not have a negative perception of their occupation and its effect on their overall well-being. If this is the case, policies and strategies aimed at formalization and inclusion should consider how these workers perceive their well-being and how these perceptions are linked to their occupations. Unfortunately, the literature does not evidence a previous effort to explore the connection between informality and well-being.

Objective

This document summarizes key theoretical and methodological aspects that were identified to be potentially relevant for researchers considering the use of well-being instrumentally. They are the result of a prior critical revision of the well-being literature, carried out to ensure that the outputs of Alianza EFI's *Social Innovation Lab* are contextually relevant.

Methodology

The document discusses theoretical and methodological aspects separately. The former is discussed along four dimensions. The section shows how relevant theoretical accounts and terminology align differently over these dimensions. Complementarily, methodological aspects are discussed against the backdrop of popular instruments. The section covers technical and operational differences with potentially significant implications.

Results

The text shows that the current framework for the study of well-being can sufficiently accommodate a multiplicity of instrumental uses. It highlights, however, the importance for researchers to be mindful of how different theoretical and methodological decisions are

[1] Social Appropriation Professional, Universidad del Rosario. Alianza EFI researcher. Email: linama.gomez@urosario.edu.co

[2] Research Professional, Universidad del Rosario. Alianza EFI researcher. Email: juliandav.rodriguez@urosario.edu.co

[3] Associate Professor, Universidad del Rosario. Alianza EFI researcher. Email: david.anzola@urosario.edu.co

positioned within this framework, in terms of their supporting belief and assumptions, as well as their implications.

Keywords

Well-being, Informality, Measurement, Life satisfaction, Quality of Life, Welfare.

JEL: I30, C40, I10, I12, D63

Bienestar como proxy para el estudio de la informalidad: diferencias en conceptualización y medición

Lina Marcela Gómez Núñez[4], Julián David Rodríguez Corcho[5], David Anzola[6]

Contexto

Aunque la informalidad se ha asociado con peores resultados económicos a nivel individual y colectivo, los trabajadores informales podrían no tener una percepción negativa de su ocupación y del efecto en su bienestar. Si este es el caso, políticas y estrategias orientadas a la formalización e inclusión de trabajadores informales deberían considerar cómo estos trabajadores perciben su bienestar y cómo estas percepciones están ligadas a su ocupación. Desafortunadamente, la literatura no sugiere la existencia de un esfuerzo previo que establezca un vínculo entre la informalidad y el bienestar.

Objetivo

Este documento presenta un breve resumen de aspectos teóricos y metodológicos clave que son potencialmente relevantes para investigadores interesados en utilizar el bienestar de manera instrumental. Estos aspectos fueron identificados durante una revisión crítica previa de la literatura en bienestar, llevada a cabo con el fin de asegurar que los productos del Laboratorio Social de la Alianza EFI son contextualmente relevantes.

Metodología

El documento discute aspectos teóricos y metodológicos separadamente. Los primeros son discutidos a partir de cuatro dimensiones. La sección muestra cómo terminología y marcos teóricos específicos se alinean alrededor de estas cuatro dimensiones. Al mismo tiempo, los aspectos metodológicos son discutidos en el contexto de instrumentos de medición populares. La sección cubre diferencias técnicas y operacionales con importantes implicaciones metodológicas.

[4] Profesional de Apropiación Social, Universidad del Rosario. Investigadora de la Alianza EFI. Email: linama.gomez@urosario.edu.co

[5] Profesional de Investigación, Universidad del Rosario. Investigador de la Alianza EFI. Email: juliandav.rodriguez@urosario.edu.co

[6] Profesor asociado, Universidad del Rosario. Investigador de la Alianza EFI Email: david.anzola@urosario.edu.co

Resultados

El texto muestra que los desarrollos en el estudio del bienestar permiten acomodar diferentes usos instrumentales del concepto. Destaca, sin embargo, la importancia de que los investigadores sean conscientes de cómo diferentes decisiones teóricas y metodológicas se posicionan dentro de estos desarrollos, en términos de los supuestos y creencias que los soportan, al igual que sus implicaciones.

Palabras clave

Bienestar, informalidad, medición, calidad de vida, satisfacción con la vida.

JEL: I30, C40, I10, I12, D63

Contents

Introduction

A key output of *Alianza EFI* is a *Social Innovation Lab* that will be entrusted with the generation of social innovation and social appropriation of knowledge strategies that promote formalization and socioeconomic inclusion. With the intention of ensuring these strategies are contextually relevant, we wanted to understand how informal workers perceive their well-being and how these perceptions are linked to their occupations. While informality is usually valued negatively because it worsens individual and social economic outputs (OECD, 2019; Ulyssea, 2020), informal workers might not necessarily have a negative perception of their situation of informality, their occupation, and the effect of their occupation on their overall well-being.

Individual perceptions of well-being are more important altogether considering, first, that formalization policy effectiveness has been shown to require more than easing formalization barriers or informing workers about the formalization options available to them (Ohnsorge & Yu, 2021; RNSF, 2018) and, second, that informal workers can be reflexive of their condition of informality and act accordingly, both politically and economically (Altamirano, 2019; Berens & Kemmerling, 2019). A need is there, then, to understand the overall conditions of informal workers and how these conditions might affect the exercise of their agency, particularly when it comes to formalization.

Even though inquiring into individual perceptions of well-being might help in the design of alternative formalization strategies, there is not a single univocal way to address these perceptions and their link to the conditions of an informal occupation. The contemporary literature offers a wide arrange of conceptual and methodological alternatives to approach individual and collective well-being that are not necessarily replaceable or interchangeable. Differences among these alternatives may prove relevant when the interest in well-being is instrumental: in our case, as a proxy to design contextually relevant social innovation and social appropriation of knowledge strategies.

In this text, then, we offer a brief characterization of theoretical and methodological elements in the literature of wellbeing that are worth considering when well-being is approached from an instrumental point of view. The next section focuses on theoretical elements. There, we identify four conceptual dimensions that could significantly impact the way in which well-being can be used as a proxy. Later, we address methodological elements. We analyze some design and application features that provide researchers will a healthy amount of measuring

options, but also require from them to be mindful of key trade-offs associated with the selection of instruments.

Theoretical dimensions of well-being

Prior literature has extensively characterized the conceptual ambiguity surrounding the notion of well-being (Dodge et al., 2012; Gasper, 2007; Gillett-Swan & Sargeant, 2015; Loveridge et al., 2020; McGillivray, 2007; Tov, 2018). Historically, several terms have regularly been used interchangeably and the multiple definitions offered can easily overlap. Even though some authors have tried to lay the foundations for a conceptual synthesis, the lack of conceptual unification is still evident. Rather than rehearsing the conceptual ambiguities and overlapping definitions or assessing the progress of the multiple synthesizing attempts, this section addresses some theoretical differences that are worth being mindful of when well-being is used instrumentally.

Disciplinary domain

Human well-being is relevant for a multiplicity of areas of study, but the reasons for this relevance are determined in each case by idiosyncratic sets of disciplinary reasons. Variations are, initially, due to disciplinary competence and specialization. As it will be explored in more detail below, in the health sciences, physical and mental health are often key components in the conceptualization and measuring of well-being. Alternatively, in the social sciences, conceptualizations tend to bring to the fore different aspects of the social, economic, and political dimension of well-being e.g., interpersonal relationships, social capital, financial status.

Disciplinary differences are not only relevant from the perspective of definitions or emphasis on certain components, but also of the theoretical traditions that have been developed around these concepts. The literature on welfare, for instance, shows a much greater concern for the connection between welfare and public policy (Barry, 1999; Greve, 2019). Key associated terms such as social protection and safety nets, and the overall political systems that allows for them through specific public policy, have become comparatively more relevant and are usually incorporated into the discussion against the backdrop of institutional decision-making (Greve, 2019; Veenhoven, 2000). In turn, in much of the welfare literature, there is a strong sense of institutional responsibility, for well-being achievements are believed to be strongly linked to the provision of different public and social goods and services (in opposition, for example, to

the literature on wellness, which stresses the connection between purposeful individual action, life outlook and well-being (Myers & Sweeney, 2004; Rachele et al., 2013)).

These disciplinary differences can be exploited for research in more than one way. In the case of informality, for instance, health-related issues of well-being might be further explored. Even though, informality is mainly addressed from an economic point of view, it is often operationalized as access to social security benefits. In turn, informal work is prevalent in countries where both social protection and safety nets are limited or have a clearly differentiated access (OECD, 2019; Ohnsorge & Yu, 2021). When considering well-being as a proxy to understand informality, it could be asked, for example, if countries with high incidence and prevalence of informality should tackle the issue as a matter of public health.

These public health concerns can be further extended to the analysis of the specific working conditions of an occupation and its effect on society. For example, informal recycling is an occupation with high occupational health hazards because of how common it is for these workers to carry out dangerous procedures without adequate protective equipment. Bad separation and collection practices might, in turn, increase the environmental effect of the activity (Ferronato & Torretta, 2019; Wilson et al., 2006). Both dangers significantly increase in the context of e-waste management, a type of informal recycling that is increasingly gaining popularly (Widmer et al., 2005).

Scope of the concept

The implications of using well-being as a proxy naturally depend on the specific concept that is used. In the literature, as mentioned above, several other terms are used interchangeably: quality of life, welfare, social welfare, well-living, wellness, life satisfaction, living standards, prosperity, human development, needs fulfilment, development, empowerment, capability expansion, poverty, human poverty, happiness (Dodge et al., 2012; Gasper, 2007; Gillett-Swan & Sargeant, 2015; Loveridge et al., 2020; McGillivray, 2007; Tov, 2018). While the notion of well-being generally refers to the general evaluation of the state of an individual's life situation, the manner and extent to which each concept addresses this situation vary significantly.

For example, the concept of poverty is, comparatively, more centered on restrictions or limitations to well-being than alternative concepts. This narrower scope, interestingly, gives the concept an evident overall negative connotation (in contrast, among others, to happiness (Veenhoven, 1984)) that is evident in several theories of poverty, such as Sen's (1979)

‘capabilities approach’. Overcoming poverty, he suggests, is challenging, for people often do not have the capabilities i.e., real opportunities, to live the life they have subjective reasons to value. Interestingly, the recognition of additional dimensions of poverty beyond the economic has led to reconceptualize the term in many ways, including ‘poverty’ *as* ‘human development’ (Stanton, 2007; UNPD, 1990), an alternative term for well-being.

The two concepts: poverty and human development, are strongly related, but the latter involves a critique to previous conceptualizations and methodological operationalizations of the former (Stanton, 2007; UNPD, 1990). It also includes a tacit acknowledgement of the need to induce change i.e., to *develop*, that is not evident in every term used interchangeably with well-being. These conceptual specificities can, again, be relevant in the analysis of how well-being moderates perceptions of and attitudes towards formalization in informal workers. Strategies to overcome informality will likely overemphasize the improvement of economic conditions if poverty is used as proxy. Yet, other concepts, such as well-being itself, would encourage taking a more holistic approach to the influence of an informal occupation on the evaluation these workers make of their situation. Naturally, one of the problems is that informality is a ‘social bad’, so *development* is often framed within the context of society as a whole. Yet, from the perspective of an individual, there might be other aspects e.g., not being discriminated against (common in informal occupations with poor working conditions and minimal benefits e.g., informal recycling, or occupations that are socially stigmatized, for its nature or its connection with illegality and criminality e.g., sexual work), that might be subjectively considered more important than an increase in salary or better access to social and public goods and services.

Key classifications and dichotomies

The literature on well-being is full of relevant classifications and dichotomies that have major theoretical and methodological implications. The most important is, arguably, the subjective-objective distinction. This dichotomy addresses the source of well-being (there is, however, an interesting ambiguity in this dichotomy, for sometimes questions about the nature of determinants are combined with questions about how to measure them (Gasper, 2007)). For a long time, research on well-being focused on what is now considered to be objective determinants e.g., income, educational attainment, residential and workplace safety. The label ‘objective’ is given, first, because of a longstanding widespread belief in the social sciences that these determinants are the basis of a well-ordered functioning society and, second, because they are material and tangible (Dasgupta, 2001; Voukelatou et al., 2021).

Complementarily, the idea of subjective determinants of well-being was initially explored in closely connected literatures, most notably, about happiness, and explicitly introduced in the well-being literature by Diener (1984) in the eighties. The label 'subjective' is linked to the acknowledgement that evaluations of well-being are mediated by the subjective individual experience of the multiple possible determinants of well-being. It is not about replacing traditional objective determinants by an alternative set of subjective determinants, but about considering how individuals subjectively evaluate their situation, which will, naturally, include consideration of those determinants traditionally considered objective.

For instance, when evaluating their well-being, an individual may consider income. Form an objective perspective the key question would be about the purchasing power that this income allows for. From a subjective point of view, however, what matters from this evaluation is the reasons to value this income e.g., status, job satisfaction, consumption. As such, then, subjective well-being is concerned with cognitive and affective elements of well-being, which have been approached in the literature mostly through judgments about life satisfaction and (the prevalence of) positive affect (Diener, 1984; Headey, 2006; Kahneman & Riis, 2012) (the difference between cognitive judgments and affective reactions is the foundation for an additional popular dichotomy: life evaluations and emotional well-being).

Several other classifications and dichotomies, particularly those developed around the notion of subjective well-being, are worth considering, for instance, the distinction between hedonic and eudaimonic well-being. Using the example above, consumption and status are two different reasons for which to value money, and it would be important to know what reasons might lead an individual to privilege one over the other in subjective evaluations of well-being. The hedonic and eudemonic dichotomy has allowed to explain several differences in the evaluation of a person's situation by further delimiting the sources of subjective well-being. Hedonic well-being, it is argued, is attained by increasing pleasure and reducing pain, whereas eudaimonic well-being is attained by self-realization or self-actualization guided by a virtuous understanding of human potential (Ryan & Deci, 2001). Lavish spending, then, may satisfy typical considerations of hedonic well-being, but not of eudaimonic well-being.

When well-being is used instrumentally, these multiple categories and dichotomies can have some interesting implications. In the case of informality, subjective considerations have not sufficiently been explored. The interest in exploring the connection between informality and well-being that inspires this paper is linked, in part, to the recognition of a gap in the

understanding of how evaluations of well-being might become a barrier or facilitator in different formalization attempts. Furthermore, it could be argued that formalization, as a mechanism to increase well-being, is mostly framed within an 'objective' approach. Some typical indicators such as formal registration or social security contributions might be only weakly connected to judgements about life satisfaction and affective reactions.

The connection between informality and well-being should be analyzed in more detail because, even though several informal workers are in evident conditions of vulnerability, income, as the main output of their labor, has an interesting connection with well-being. Initially, it is differently related to life evaluations and emotional well-being i.e., different satiation points and rate of variation (Kahneman & Deaton, 2010). Similarly, it is affected by contextual and social aspects such as a country´s income inequality and economic growth (Ng & Diener, 2019), in part, because they are several possible cognitive processes that can potentially support the evaluation (Diener et al., 2018b). It would be interesting to know, for instance, if subjective considerations of well-being make informal workers more acceptant of informal occupations with reduced income (and maybe even bad working conditions), or find little incentives for formalization, in unequal societies.

Specific contextual frameworks

While a large portion of the literature centers on general evaluations of well-being, there are, as well, several specialized theoretical corpuses that address well-being in specific contexts. The corpuses available may simply combine typical terminology in the literature on well-being and the context of interest (and center mostly on establishing correlations between the two) or incorporate dedicated concepts that are developed to explicitly tackle contextually relevant well-being concerns. This theoretical specialization is not surprising, considering that the dynamics of any differentiated social setting or dimension may be potentially relevant for both objective and subjective evaluations of well-being. It, however, adds different layers of complexity to the instrumental use of well-being.

This potential complexity is easily exemplified by the literature on the relationship between workplace and well-being (a relevant relationship for the study of informality). There is, initially, some terminology e.g., quality of *working* life or *occupational* well-being, that broadly combine both domains and has been influential, especially from a methodological point of view (Warr et al., 1979). A narrower connection between workplace and well-being has also

been established through specific concepts. The literature has extensively explored the effect of typical concepts in management and organization sciences e.g., job satisfaction, working hours, work attitudes, work orientation or work environment, on well-being. There are, in turn, some concepts that materialize the connection more strongly. A notable example is burnout, a major current organizational concern, especially during times of COVID-19 (Denning et al., 2021), because it can lead to severe and long-lasting health impairments and lower productivity (Maslach et al., 2001). Naturally, most of these concepts can be found in larger theoretical frameworks that offer distinctive approaches to the relationship between workplace and well-being. Burnout, for example, figures prominently in the Job Demands-Control (-Support) (Häusser et al., 2010) and the Job Demands-Resources (Bakker & Demerouti, 2017) theories, which are mostly centered on exploring the effect on different buffers in the connection between job stressors and burnout.

Overall, the literature has explored the connection between workplace and well-being through multiple objects and levels of study, producing several insights into how this connection matter for individuals, organizations, and organizational dynamics. It has, as well, studied the more general connections and interactions with other domains e.g., family (Amstad et al., 2011), or the market (Tay & Harter, 2013). Thus, even if the focus is the workplace, potentially relevant research outputs are not entirely delimited thematically. They are not delimited disciplinarily, either. While most insights have been produced by occupational psychology, they are useful for several other disciplines interested in well-being.

This specialized well-being literature, given its focus on workplace and occupations, can significantly inform our understanding of the connection between informality and well-being. It, however, also evidences the challenges that different formalization efforts may face, especially if the goal is not to simply formally regulate these worker's economic activity, but to actually improve their well-being. Informal occupations show key variations in variables that have proven to be fundamental for employee's well-being e.g., income, job security, workplace safety, working hours, skills mismatch, task discretion and control (Findlay et al., 2013; Horowitz, 2016), which could make it difficult to transversally increase well-being through non-focalized formalization policies.

To recapitulate, although, used as a proxy, well-being can greatly inform research on a multiplicity of phenomena, especially when the interest is in identifying ways to better support decision-making aimed at improving the conditions of a particular population, the theoretical

apparatus developed around the notion of well-being is evidently vast and intricate. Researchers can benefit from a large and multiply specialized terminology, well-tested frameworks, and an overarching multidisciplinary scope. Yet, to take full advantage of these tools, it is necessary to be mindful of key theoretical differences and alternatives that have significantly influenced the development of the well-being literature and its diverse specializations. This section addressed four such alternatives to briefly illustrate their relevance and implications. The discussion does not intent to be exhaustive. Rather, it is advanced with the intention of exemplifying how these multiple theoretical considerations may influence the instrumental use of the theoretical apparatus developed around the notion of well-being.

Instruments to measure well-being

The literature on measuring well-being is as vast and intricate as its theorization and includes some interesting discussions with contemporary relevance (Diener et al., 2018a; Lee et al., 2021). Over the years, several instruments have been developed to measure the multiple dimensions of well-being with varying levels of success. The current methodological intricacy, however, is only partially connected to the conceptual intricacy mentioned above. It is also the result, on the one hand, of challenges that are decidedly methodological, for example, the validity and reliability of self-report, a key approach for the collection of data on subjective well-being (Lucas, 2018), and, on the other hand, of the sometimes longstanding conflicting nature of research results about key questions e.g., whether, when considering age, well-being is always U-shaped (Blanchflower, 2021).

This section does not address these methodological discussions. It provides, instead, a brief characterization of some measurement tools, with the intention of illustrating some elements that are worth considering when using well-being instrumentally. Three clarifications are needed at this point: ‘well-being’ is used throughout from here onwards, although other terms are sometimes employed when reporting on the application of these instruments. Similarly, the analysis only includes instruments that are explicitly reported in the measurement of well-being. Specialized tools developed for alternative concepts e.g., poverty, are not included, for, even if the terms are sometimes used interchangeably, as mentioned above, there might be some differences that affect their measurement. Finally, only quantitative instruments are discussed. There are several qualitative analyses of well-being reported in the literature and, in fact, there are some recognized advantages of approaching the phenomenon qualitatively (Thin, 2018). However, qualitative approaches are not standardized, which makes it hard to compare

them. These decisions are made for the sake of simplicity. It is important to be mindful that the aim of the analysis is illustration, not providing a comprehensive representation of the current methodological apparatus available for the measurement of well-being.

Measuring alternatives

Table 1 list some instruments used to measure well-being. It includes seven factors related to the design and application of these instruments, including the type of well-being measured. Several differences become readily apparent. An interesting finding is the popularity of indexes and scales. Responses in indexes and scales are rank-ordered, allowing for easy comparison and evaluation against (desired) standards. They have, as well, important differences. Scales measure a group of items clustered or correlated in which numerical values are assigned to the attitudes and emotions they measure for a subsequent interpretation of their intensity. Thus, subjective scales offer a comprehensive measurement in a specific time frame. The BMSLSS, for instance, contains a set of questions to rate a global perspective of life satisfaction, as well as specific domains of life satisfaction (e.g., satisfaction with family life and school).

Alternatively, indexes combine items without necessarily finding a correlation between them. Indexes take simpler measurements and add them to process the results under a single numeric score. In indexes, all questions are oriented to measure the same variable, making them self-contained. Researchers can decide, then, whether to assign the same or different weights to each item (Coste et al., 1995). Well-being indexes have been equally designed to measure a single (e.g., mental health) or multiplicity (e.g., social, health, economic, environmental, political) of components.

Both approaches are consistent with the complex nature of well-being. They attest in different ways to the intricacy of the concept, but they are not mutually exclusive, so it is up to the researcher to define with precision what is needed from the measurement tool when well-being is being used instrumentally. In the case of informality, for example, it might be equally useful to know how job satisfaction compares with other domains of life satisfaction or the extent to which job satisfaction acts as a buffer in several informal occupation. Each question, however, can be better answered by some instruments.

Measurement	Subjective / Objective	Type of Instrument	Information source	Type of administration	Sample	Time of application	Scale of Measurement
World Health Organization 5 Well-being Index (WHO-5)	Subjective	Index	Primary data	Self-administered	General populations with or without pathologies or specific limitations	1 minute	A 5-point Likert scale ranging from 0 "At no time" to 5 "All of the time"
Canadian Index of Well-being (CIW-CS)	Objective / Subjective	Index	Primary and Secondary data	Estimations based on the System of National Accounts / Personal Interview	General populations and groups of people with low income	10 minutes	A 7-point Likert scale ranging from 1 "extremely dissatisfied" to 7 "extremely satisfied"
General Well-Being Index (GWBI)	Subjective	Scale	Primary data	Personal or Telephonic Interview	Young, adults and older groups of adults with or without pathologies or specific limitations	10 minutes	A 6-point Likert scale ranging from 0, the most negative value, to 5, the most positive a value
Index for Sustainable Economic Welfare (ISEW)	Objective	Index	Secondary data	NA	General populations at the national and regional level	NA	ISEW is calculated as the total aggregated of 7 socioeconomic variables or components
National Welfare Index (many countries)	Objective	Index	Secondary data	NA	General populations at the national and regional level	NA	NWI is calculated as the total aggregated of 20 socioeconomic variables or components
Core Welfare Indicators Questionnaire Survey (CWIQ)	Objective	Scale	Primary data	Personal Interview	General populations at the national level	30 - 60 minutes	
World Health Organization Quality of Life (WHOQOL-BREF)	Subjective	Scale	Primary data	Self-administered	General populations with or without pathologies or specific limitations	5 minutes	A 5-point Likert scale ranging from 1 to 5
Satisfaction With Life Scale (SWLS)	Subjective	Scale	Primary data	Self-administered	Young, adults and older groups of adults with or without	1-2 minutes	A 7-point Likert scale ranging from 7 "strongly agree" to 1 "strongly disagree"

Measurement	Subjective / Objective	Type of Instrument	Information source	Type of administration	Sample	Time of application	Scale of Measurement
					pathologies or specific limitations		
The Wellness Index	Subjective	Index	Primary data	Self-administered	Young, adults and older groups of adults with or without pathologies or specific limitations	20-30 minutes	Six subscales with 82 Likert-type items, ranging from 1 to 10, and from 1 to 20
Perceived Wellness Survey (PWS)	Subjective	Scale	Primary data	Self-administered	Young, adults and older groups of adults with or without pathologies or specific limitations	15 minutes	A 6-point Likert scale ranging from 1 "very strongly disagree" to 6 "very strongly agree"
Quality of Life Scale (QOLS)	Subjective	Scale	Primary data	Self-administered/Personal or Telephonic Interview	Young, adults and older groups of adults with or without pathologies or specific limitations.	5 minutes	A 7-poiny Likert scale ranging from 7 "delighted", 6 "pleased", 5 "mostly satisfied", 4 "mixed", 3 "mostly dissatisfied", 2 "unhappy", 1 "terri3ble"
EuroQuality of Life-5D (EQ-5D)	Subjective	Questionnaire and Scale	Primary data	Self-administered/Personal or Telephonic Interview	Young, adults and older groups of adults with or without pathologies or specific limitations.	2-3 minutes	Coded with a 1 if "no (I have) problems", with a 2 "some or moderate problems", and with 3 "many problems"
Temporal Satisfaction with Life Scale (TSLS)	Subjective	Scale	Primary data	Self-administered	Young, adults and older groups of adults with or without pathologies or specific limitations.	5 minutes	A 7-point Likert scale ranging from 7 "strongly agree" to 1 "strongly disagree"
Brief Multidimensional Students' Life Satisfaction Scale (BMSLSS)	Subjetive	Scale	Primary data	Self-administered (twice)	Children and young adults with or without pathologies or specific limitations.	1 minute	A 6-point Likert scale ranging from 1 "very dissatisfied" to 6 "very satisfied"

Table 1. Methodological characteristics by instrument.

Scale of measurement

Scale of measurement is design feature that might significantly influence application decisions, especially when considering a cost-effective use of well-being as proxy. The selection of an appropriate scale of measurement depends on psychometric elements such as reliability, internal consistency, and stability, as well as the administration time and objective of the measurement. Several instruments in table 1 use a Likert scale. The Likert scale qualifies the agreement or disagreement level of individuals to different questions, usually directed to their attitudes and behaviors. Using a Likert scale reduces the time necessary to fill out the questionnaire, as it allows researchers to cluster different questions with the same scale of possible responses. Potential respondents have also become familiar with the scale, giving its increasing popularity (Wakita et al., 2012). The combination of having a methodological design that incorporates a short administration time and scales such as Likert allows numerous advantages.

These instruments, however, could also be addressed in the light of popular psychometric discussions. In the specific case of Likert-type scales, a key question pertains to the most reliable number of options: less than eight scale points (Cicchetti et al., 1985), a 7-point scale (Oaster, 1989; Preston & Colman, 2000), or a 5-point scale (Boote, 1981; Lissitz & Green, 1975). Nevertheless, research on Likert-type scales has revealed that psychometric elements such as reliability, stability, and validity, are independent of the number of response alternatives provided (Bendig, 1954; Brown et al., 1991; Komorita, 1963; Matell & Jacoby, 1971).

The instruments listed in Table 1 include a combination of 5-point (WHO-5 WHOQOL-BREF), 6-point (BMSLSSS, PWS, GWBI) and 7-point (CIW-CS, SWLS, QOLS, TSLS) Likert scales, which, naturally, has implications on how quick and easy they are to answer and compute and how reliable they are believed to be. 7-point scales often have a longer time of application due to the number of possible answers. However, they have been proven to produce more accurate responses, since they include a wider range of options. In addition, according to Green & Rao (1970), neutral response options, which are believed to be problematic, for sometimes people tend to select it, even if they do not consider themselves or their position to be neutral (Riker, 1944), are used less in seven or higher point scales.

Beyond their psychometric properties, specific scales can have important practical features. They could, for example, allow for automated data collection, which decreases administration

time, but might affect the reliability of the results. Administration time has, in fact, been a common concern in the design of instruments to measure well-being. Most of them intend to have an administration time from 1 to 5 minutes and a maximum of 10 minutes. At the same time, some instruments have been refined or reformulated so that they can accommodate the measurement of well-being to specific time frames and other data collection restrictions (e.g., the WHO well-being questionnaires, which initially moved from 28 to 10 questions and later to 5).

Not all instruments to measure well-being use a Likert-scale. In fact, several popular measurement tools rely on secondary data, which gives more flexibility in the design. The ISEW and NWI, for example, analyze seven and twenty socioeconomic variables, respectively. Because of the nature of the phenomenon, instruments that depend on secondary data are more able to extensively measure objective well-being (they also make possible to measure subjective well-being if the original collection instrument was designed as such). Regardless of the measurement, these instruments offer advantages for large scale intra and inter country comparisons.

It is clear, then, that there are sufficient options to accommodate multiple methodological considerations and preferences e.g., time of application, level of detail, comparability, a researcher might have when evaluating the use of well-being instrumentally. The multiplicity of tools available is not only beneficial from the perspective of the number of options, but also from the perspective of having *tested* options. Several tools have been extensively tested for robustness and validity in a multiplicity of settings, which, in many cases, will provide insights into contextual factors that need to be taken into account for their application.

Target population

Although well-being is a multidisciplinary concern, a significant number of measurements are carried out in the health sciences with specific populations e.g., patients suffering from a varied set of mental or physiological conditions. There are, as well, several applications in elderly population. This approach to the measurement of well-being intends to allow scientists to link illnesses with a specific set of indicators of being good, in terms of abilities, disabilities, pain or relief.

The WHO-5 is an example of a tool typically used in health-related contexts. It is a short questionnaire consisting of five simple and non-invasive questions. It has been employed as a

screening tool for depression, as well as an outcome measure in clinical trials. It has also been applied successfully across a wide range of mental and physical medical conditions i.e., diabetes, substance use disorders, cardiovascular disease, and stress research. It is regarded as an effective measuring tool for geriatrics, endocrinology, neurology, and psychiatry (Topp et al., 2015). Similarly, the QOLS, a 16-item instrument that measures material and physical well-being, as well as relationships with other people, personal development, and leisure activities, has been successfully applied to persons suffering chronic illnesses e.g., diabetes, osteoarthritis, rheumatoid arthritis, and post-ostomy surgery. The QOLS is believed to be a reliable and valid instrument for measuring quality of life from the perspective of the patient when there is no cure to be found (Burckhardt & Anderson, 2003).

Some of these specialized tools have been tested in regular populations, often with good results. These differences in target population, however, raise a few key methodological questions when using well-being as a proxy. For example, the WHO-5 is simple, short, and not invasive, so its advantageous in situations where other more important data needs to be collected or where asking more detailed information about well-being might create trust issues. Yet, it will provide only a partial account of that populations' well-being, centered mostly on health aspects. Some attention will likely need to be paid to its validity, as well. Researchers, then, will need to weigh all the possible trade-offs of using these different instruments. The advantage in this case, as mentioned above, is that there are plenty options to choose from.

Tools that measure well-being with secondary data usually have a more multidisciplinary orientation. There are some variations, as well, but they depend more on the overall conceptualization of well-being and the institutional setup for the primary data collection process (usually data from national and international statistic agencies or large private surveys is used for these measurements). As mentioned above, because of their reliance on secondary data, the target population of these tools is as varied as the conceptualization of these tools and the data available. They can center on individuals, households or other unit of measurement and allow for comparison on different levels. The CWIQ, for instance, addresses access, use, and satisfaction with basic social services, such as health, household provision, dwelling characteristics, and education, with the intention to classify households of a country or a region according to poverty status. Alternatively, the NWI measures well-being through macro variables such as the GINI index, along with environmental (soil degradation, pollution, and noise contamination) and social (traffic accidents, crime, tobacco, and drug abuse) issues (Held et al., 2018). The evaluation of trade-offs is different for these instruments. However, just like

with instruments for primary data collection, there are sufficient options to choose from. The most significant limitations in this case might be whether the data is available at the level of granularity desired.

Item analysis

Table 2 below groups elements included in the instruments surveyed in ten categories. These categories are *Psychological perceptions*, *Physical perceptions*, *Health status*, *Leisure time*, *Social relations*, *Social capital*, *Education*, *Environment*, *Quality of employment*, and *Political economy/Macroeconomics*. The list tries to avoid duplicate items, but there might be some overlapping, depending on the scope of each instrument. The goal was to fully characterize the entire arrange of items included in these instruments, rather than to abstract or synthesize from them.

The first category, *Psychological perceptions*, is comprised by five items pertaining to how people perceive their state of mental health. The item 'Health perceptions' for example, follows from questions such as: 'feeling energetic/active/vigorous' (WHO-5, WHOQOL-BREF, EuroQol, PWS), 'feeling stressed/anxious' (GWBI), 'feeling depressed' (Wellness Index), among others. Similarly, the item 'Emotional functions', follows from questions such as: 'the ability to cope with any problem in life' (WHO-5), 'be eager to tackle daily activities' (WHO-5, CIW-CS), 'adjusted to life situations' (WHO-5), and the 'ability to make new decisions' (WHO-5, WHOQOL-BREF). Most tools focusing on psychological perceptions privilege an individual and subjective self-rating of mental health. An exception to this is the CIW-CS that combines a subjective and an objective approach to mental status because it includes self-rated health, as well as an objective measure of the likelihood of depression based on national data.

Most tools that include psychological perceptions also include *Physical perceptions*, except for the life satisfaction scales, the WHOQOL-BREF, and the EuroQoL, which only focus on mental-related items. In the physical spectrum, there is a common concern for how pain, mainly caused by chronic illness and disease, affects the general perception of being good and the possibility of being able to do things. This emphasis on the symptoms/impairments is complemented with general perceptions of rest/unrest and energy to carry out daily activities. The WHO-5 and the QOLS privilege this perspective, and both are linked to the health sciences and human care. Other items that are explored in the *Physical perceptions* category are weight and exercise. These items are related to a specific lifestyle that includes a set of routines that

are perceived as healthy for the human body. As a result, these tools aid identifying how conscious a person is to willingly adopt an attitude of self-care in her daily life. The PWS, the wellness index, and the CIW include this perspective of physical well-being. It is worth mentioning that the GWBI includes the two main branches of physical perceptions, the one closest to health-related feeling and the one that explores a healthy lifestyle.

One last category centered on health pertains to perceptions of *Health status*. Items grouped in this category distance themselves from the physical and psychological perceptions for they revolve more around public health issues, such as functional medical treatment, access to health services or drug/substance abuse. Items in this category are measured both as objective health indicators of through subjective perceptions of access and quality of health services. Another category that combine objective and subjective measurements is *Leisure time.* The QOLS, for example, mainly enquires about how people perceive their free time, whereas the CIW-CS seeks to make a more objective response on access to a certain set of entertainment services.

Interpersonal relationships groups items that explore how social and intimate relations influence people's subjective perception of being good. The CIW-CS includes the rate of social contact in recent times and the level of interaction with friends in the neighborhood (mostly an issue of strong ties). Some other measurement tools focus on how personal relationships are interpreted from an isolation/socialization point of view. The QOLS, for instance, focuses on understanding what is the general feeling of a person against the backdrop of perceptions of loneliness or socialization. The most prominent item in this category addresses support in a time of crisis. This item focuses on the extent to which a person expects to receive some benefit from her personal relationships with other people. Finally, enjoyment of sexuality, as the last item in this category, is shared by the WHOQOL-BREF and the PWS.

In the *Social capital* category two commonly shared items are found: 'Some group to ask for support in crisis' and 'Quality of democracy', both included in the CIW-CS, WHOQOL-BREF, and PWS measurements. Perceptions of support are included in some previous categories. Yet, in *Social capital*, items are framed so to enquire about the actual materialization of support. The item 'Quality of democracy' is interesting because, just as with previous items, it might be addressed in terms of perceptions or the actual experience of politics in daily life.

CATEGORIES	INSTRUMENTS													
	(WHO-5)	(CIW-CS)	(GWBI)	(WHOQOL-BREF)	(EQ-5D)	(QOLS)	(PWS)	The Wellness index	(NWI)	(CWIQ)	(ISEW)	(SWLS)	(BMSLSS)	(TSWLS)
Psychological Perceptions														
Health perceptions	x	x	x		X	x	x	x						
Emotional functions		x	x	x			x	x						
Mood/feeling	x	x	x	x			x	x						
Spiritual fulfillment			x			x	x	x				x	x	x
Satisfaction with life	x		x	x			x	x				x	x	x
Physical Perceptions					x									
Rested/ tired	x	x	x			x		x						
Self-care			x				x							
Symptoms/impairments		x	x			x		x		x				
Weight			x					x						
Exercise		x	x					x						
Health Status														
Medical Treatment to function			x		X					x				
Access to health services		x			X									
My body seems to resist physical illness very well			x											
Use of addictive substances								x						
Gender										x				
Leisure Time					X									
Way the person spends time		x				x								
Access to parks and recreational opportunities		x				x								
Interpersonal Relationships														
Friends in the neighborhood		x					x							
Social contact in recent time		x				x								
Socialization/ isolation						x								
Someone to ask for support in crisis				x	X		x	x						
Enjoy your sexuality				x			x							
Social Capital														
Trust		x		x										

Environment in the community		x		x	X									
Sense of Belonging to a Community		x		x										
Perception of security in the neighborhood		x												
Active member of a group in the community				x		x								
Some group to ask for support in crisis		x		x			x	x						
Quality of democracy		x		x		x	x							
Capabilities to meet and maintain good relationships with family, friends, and groups of people						x	x	x						
Influence local decision-making/groups/organizations				x		x								
Education														
Access to formal education		x				x				x				
Access to arts and cultural opportunities		x												
Environment														
Quality in neighborhood/community														
Healthiness of the environment		x			X									
Conditions of the living place					X									
Quality of transport					X									
Material well-being						x						x		x
Quality of Employment														
Labor income								x		x				
Occupational status		x				x	x	x						
Capacity of Work		x			X									
Working conditions		x						x						
Political Economy/ Macroeconomics														
Financial Situation										x	x			
GDP									x	x	x			
Income inequality/Gini-index									x	x	x			
Non-defensive public expenditure											x			
Capital growth											x			
Non-marketed activities/ Unpaid labor and informal work									x		x			
Defensive private expenditure											x			
Cost of environmental degradation		x								x	x			

Table 2. Measurement characterization by item and category.

Education, *Environment*, and *Quality of employment* appear less frequently in the instruments. Almost all quality-of-life (EuroQol), health-oriented (PWS), and satisfaction with life-oriented measures (BMSLSS and TSWLS) incorporate at least one item from these categories, but they are included so to allow for a socioeconomic characterization of individuals. They rarely have a full index or dedicated scales. This is the reason for the prevalence of the items 'Access to formal education' and 'Occupational status' in Table 2. In turn, as mentioned above, items in Table 2 may cluster different questions from each questionnaire. 'Material well-being' is grouping: having good food, home, possessions, comforts, and expectations of this in the future.

The last Category, *Political economy/macroeconomics* comprises a set of items designated to assess the financial and economic situation of a country or government. They are usually included in instruments that use secondary data in country-wide samples, such as the NWI, the CWIQ and the ISEW. The items 'Income inequality/Gini-index' and 'Non-defensive public expenditure' is where the three instruments above emphasized the most. This Category addresses more regularly the macro dimension of well-being and usually from the objective point of view: considering the potential benefits of social public expenditure. Unlike the other instruments included in Table 2, the NWI, the CWIQ and the ISEW do not assess the relationship between health and well-being or living standards and well-being.

Table 2 allows to visualize more easily, first, the multiplicity of items that are included in the diverse instruments employed for the measurement of well-being and, second, how these instruments, for methodological and theoretical reasons, load more heavily onto some categories. There are no instruments that allow for the transversal measurement of well-being, probably because of how resource demanding this measurement would be and because, considering the disciplinary intricacy of the studies on well-being, its results could not be sufficiently incorporated into a single research project. It is important, however, to recognize the flexibility that this large methodological apparatus offers researchers interested in using well-being instrumentally.

Conclusions

Motivated by the question about how informal workers' perceptions of well-being affect their attitudes towards formalization, we analyzed theoretical and methodological aspects that are worth considering when well-being is used as a proxy in the study of other phenomena. Our goal in this text was to offer a summary of these aspects for researchers with a similar interest in well-being.

In the first section, we discussed four dimensions that could greatly influence theoretical decisions: disciplinary domain, scope of the concept selected as proxy, key classifications and dichotomies, and contextual conceptual apparatuses. Overall, each dimension has the potential to significantly narrow down theoretical options and encourage researchers to position the study within a distinctive theoretical framework with different level of development, conceptual resources, and methodological links. In the second section, we analyzed some popular instruments used to measure well-being. We showed that there are important variations in the assumptions followed for the design and application of these instruments and in the way they capture the phenomenon of well-being. The methodological diversity is large enough to accommodate a multiplicity of methodological requirements for someone that is interested in approaching well-being instrumentally. There is a need, however, to be mindful of the multiple trade-offs that these methodological options entail.

We believe that the study of informality can greatly benefit from considering informal workers' well-being and that *Alianza EFI*'s Social Innovation Lab can make a difference in its interaction with multiple stakeholders. However, we acknowledge the challenges involved in designing formalization and inclusion strategies that put these workers' well-being first. The main one is, perhaps, to sufficiently characterize the subjective evaluation of their occupations, given the noticeable differences between informal occupations. Motivated by this need, we are advancing quantitative and qualitative data collection process where the well-being of informal workers in four occupations is being explicitly considered.

References

Altamirano, M. (2019). Economic Vulnerability and Partisanship in Latin America. *Latin American Politics and Society*, *61*(03), 80–103.

Amstad, F. T., Meier, L. L., Fasel, U., Elfering, A., & Semmer, N. K. (2011). A Meta-Analysis of Work–Family Conflict and Various Outcomes with a Special Emphasis on Cross-Domain Versus Matching-Domain Relations. *Journal of Occupational Health Psychology*, *16*(2), 151–169.

Bakker, A. B., & Demerouti, E. (2017). Job Demands–Resources Theory: Taking Stock and Looking Forward. *Journal of Occupational Health Psychology*, *22*(3), 273–285.

Barry, N. (1999). *Welfare*. University of Minnesota Press.

Bendig, A. W. (1954). Reliability and the Number of Rating-Scale Categories. *Journal of Applied Psychology*, *38*(1), 38–40.

Berens, S., & Kemmerling, A. (2019). Labor Divides, Informality, and Regulation: The Public Opinion on Labor Law in Latin America. *Journal of Politics in Latin America*, *11*(1), 23–48.

Blanchflower, D. (2021). Is happiness U-shaped Everywhere? Age and Subjective Well-Being in 145 Countries. *Journal of Population Economics*, *34*(2), 575–624.

Boote, A. (1981). Reliability Testing of Psychographic Scales. *Journal of Advertising Research*, *21*(5), 53–60.

Brown, G., Widing, R. E., & Coulter, R. L. (1991). Customer Evaluation of Retail Salespeople Utilizing the SOCO Scale: A Replication, Extension, and Application. *Journal of the Academy of Marketing Science*, *19*(4), 347–351.

Burckhardt, C. S., & Anderson, K. L. (2003). The Quality of Life Scale (QOLS): Reliability, Validity, and Utilization. *Health and Quality of Life Outcomes*, *1*(60). https://doi.org/10.1186/1477-7525-1-60

Cicchetti, D. v., Shoinralter, D., & Tyrer, P. J. (1985). The Effect of Number of Rating Scale Categories on Levels of Interrater Reliability: A Monte Carlo Investigation. *Applied Psychological Measurement*, *9*(1), 31–36.

Coste, J., Fermanian, J., & Venot, A. (1995). Methodological and Statistical Problems in the Construction of Composite Measurement Scales: A Survey of Six Medical and Epidemiological Journals. *Statistics in Medicine*, *14*(4), 331–345.

Dasgupta, P. (2001). *Human Well-Being and the Natural Environment*. Oxford University Press.

Denning, M., Goh, E. T., Tan, B., Kanneganti, A., Almonte, M., Scott, A., Martin, G., Clarke, J., Sounderajah, V., Markar, S., Przybylowicz, J., Chan, Y. H., Sia, C.-H., Chua, Y. X., Sim, K., Lim, L., Tan, L., Tan, M., Sharma, V., … Kinross, J. (2021). Determinants of Burnout and Other Aspects of Psychological Well-Being in Healthcare Workers During the Covid-19 Pandemic: A Multinational Cross-Sectional Study. *PLOS ONE*, *16*(4), e0238666.

Diener, E. (1984). Subjective Well-Being. *Psychological Bulletin*, *95*(3), 542–575.

Diener, E., Oishi, S., & Tay, L. (Eds.). (2018a). *Handbook of Well-Being*. DEF Publishers.

Diener, E., Oishi, S., & Tay, L. (2018b). Advances in Subjective Well-Being Research. *Nature Human Behaviour*, *2*(4), 253–260.

Dodge, R., Daly, A., Huyton, J., & Sanders, L. (2012). The Challenge of Defining Wellbeing. *International Journal of Wellbeing*, *2*(3), 222–235.

Ferronato, N., & Torretta, V. (2019). Waste Mismanagement in Developing Countries: A Review of Global Issues. *International Journal of Environmental Research and Public Health*, *16*(6), 1060.

Findlay, P., Kalleberg, A. L., & Warhurst, C. (2013). The Challenge of Job Quality. *Human Relations*, *66*(4), 441–451.

Gasper, D. (2007). Human Well-Being: Concepts and Conceptualizations. In M. McGillivray (Ed.), *Human Well-Being* (pp. 23–64). Palgrave Macmillan.

Gillett-Swan, J. K., & Sargeant, J. (2015). Wellbeing as a Process of Accrual: Beyond Subjectivity and Beyond the Moment. *Social Indicators Research*, *121*(1), 135–148.

Green, P. E., & Rao, V. R. (1970). Rating Scales and Information Recovery. How Many Scales and Response Categories to Use? *Journal of Marketing*, *34*(3), 33–39.

Greve, B. (2019). What is Welfare and Public Welfare? In B. Greve (Ed.), *Routledge Handbookof the Welfare State*. Routledge.

Häusser, J. A., Mojzisch, A., Niesel, M., & Schulz-Hardt, S. (2010). Ten Years on: A Review of Recent Research on the Job Demand–Control (-Support) Model and Psychological Well-Neing. *Work & Stress*, *24*(1), 1–35.

Headey, B. (2006). *Happiness: Revising Set Point Theory and Dynamic Equilibrium Theory to Account for Long Term Change* (No. 607; Discussion Series). https://www.diw.de/documents/publikationen/73/diw_01.c.44536.de/dp607.pdf

Held, B., Rodenhäuser, D., Diefenbacher, H., & Zieschank, R. (2018). The National and Regional Welfare Index (NWI/RWI): Redefining Progress in Germany. *Ecological Economics*, *145*, 391–400.

Horowitz, J. (2016). Dimensions of Job Quality, Mechanisms, and Subjective Well-Being in the United States. *Sociological Forum*, *31*(2), 419–440.

Kahneman, D., & Deaton, A. (2010). High Income Improves Evaluation of Life but not Emotional Well-Being. *Proceedings of the National Academy of Sciences*, *107*(38), 16489–16493.

Kahneman, D., & Riis, J. (2012). Living, and Thinking About It: Two Perspectives on Life. In F. A. Huppert, N. Baylis, & B. Keverne (Eds.), *The Science of Well-Being*. Oxford University Press.

Komorita, S. S. (1963). Attitude Content, Intensity, and the Neutral Point on a Likert Scale. *Journal of Social Psychology*, *61*(2), 327–334.

Lee, M., Kubzansky, L., & Vanderweele, T. (Eds.). (2021). *Measuring Well-Being*. Oxford University Press.

Lissitz, R. W., & Green, S. B. (1975). Effect of the Number of Scale Points on Reliability: A Monte Carlo Approach. *Journal of Applied Psychology*, *60*(1), 10–13.

Loveridge, R., Sallu, S. M., Pesha, I. J., & R Marshall, A. (2020). Measuring Human Wellbeing: A Protocol for Selecting Local Indicators. *Environmental Science & Policy*, *114*, 461–469.

Lucas, R. (2018). Reevaluating the Strengths and Weaknesses of Self-Report Measures of Subjective Well-Being. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of Well-Being*. DEF Publishers.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job Burnout. *Annual Review of Psychology*, *52*(1), 397–422.

Matell, M. S., & Jacoby, J. (1971). Is There an Optimal Number of Alternatives for Likert Scale Items? Study I: Reliability and Validity. *Educational and Psychological Measurement*, *31*(3), 657–674.

McGillivray, M. (2007). Human Well-being: Issues, Concepts and Measures. In M. McGillivray (Ed.), *Human Well-Being*. Palgrave Macmillan.

Myers, J. E., & Sweeney, T. J. (2004). The Indivisible Self: An Evidence-Based Model of Wellness. *The Journal of Individual Psychology*, *60*(3), 234–244.

Ng, W., & Diener, E. (2019). Affluence and Subjective Well-Being: Does Income Inequality Moderate their Associations? *Applied Research in Quality of Life*, *14*(1), 155–170.

Oaster, T. R. F. (1989). Number of Alternatives per Choice Point and Stability of Likert-Type Scales. *Perceptual and Motor Skills*, *68*(2), 549–550.

OECD. (2019). *Tackling Vulnerability in the Informal Economy*. OECD. https://www.oecd-ilibrary.org/development/tackling-vulnerability-in-the-informal-economy_939b7bcd-en

Ohnsorge, F., & Yu, S. (Eds.). (2021). *The Long Shadow of Informality*. World Bank Group.

Preston, C. C., & Colman, A. M. (2000). Optimal Number of Response Categories in Rating Scales: Reliability, Validity, Discriminating Power, and Respondent Preferences. *Acta Psychologica*, *104*(1), 1–15.

Rachele, J., Washington, T., Cockshaw, W., & Brymer, E. (2013). Towards an Operational Understanding of Wellness. *Journal of Spirituality, Leadership, and Management*, *7*(1), 3–12.

Riker, B. L. (1944). A Comparison of Methods Used in Attitude Research. *Journal of Abnormal and Social Psychology*, *39*(1), 24–42.

RNSF. (2018). *Policies on the Informal Economy: A Global Review*. https://europa.eu/capacity4dev/rnsf-mit/documents/rnsf-research-volume-3

Ryan, R. M., & Deci, E. L. (2001). On Happiness and Human Potentials: A Review of Research on Hedonic and Eudaimonic Well-Being. *Annual Review of Psychology*, *52*(1), 141–166.

Sen, A. (1979). Equality of What? In S. McMurrin (Ed.), *Tanner Lectures on Human Values*. Cambridge University Press.

Stanton, E. (2007). *The Human Development Index: A History* (No. 127; Working Paper Series). https://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1101&context=peri_workingpapers

Tay, L., & Harter, J. K. (2013). Economic and Labor Market Forces Matter for Worker Well-Being. *Applied Psychology: Health and Well-Being*, *5*(2), 193–208.

Thin, N. (2018). Qualitative Approaches to Culture and Well-Being. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of Well-Being*. DEF Publishers.

Topp, C. W., Østergaard, S. D., Søndergaard, S., & Bech, P. (2015). The WHO-5 Well-Being Index: A Systematic Review of the Literature. *Psychotherapy and Psychosomatics*, *84*(3), 167–176.

Tov, W. (2018). Well-Being Concepts and Components. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of Well-Being*. DEF Publishers.

Ulyssea, G. (2020). Informality: Causes and Consequences for Development. *Annual Review of Economics*, *12*(1), 525–546.

UNPD. (1990). *Human Development Report 1990: Concept and Measurement of Human Development*. http://www.hdr.undp.org/en/reports/global/hdr1990

Veenhoven, R. (1984). *Conditions of Happiness*. Springer.

Veenhoven, R. (2000). Well-Being in the Welfare State: Level not Higher, Distribution not More Equitable. *Journal of Comparative Policy Analysis: Research and Practice*, *2*(1), 91–125.

Voukelatou, V., Gabrielli, L., Miliou, I., Cresci, S., Sharma, R., Tesconi, M., & Pappalardo, L. (2021). Measuring Objective and Subjective Well-Being: Dimensions and Data Sources. *International Journal of Data Science and Analytics*, *11*(4), 279–309.

Wakita, T., Ueshima, N., & Noguchi, H. (2012). Psychological Distance Between Categories in the Likert Scale: Comparing Different Numbers of Options. *Educational and Psychological Measurement*, *72*(4), 533–546.

Warr, P., Cook, J., & Wall, T. (1979). Scales for the Measurement of Some Work Attitudes and Aspects of Psychological Well-Being. *Journal of Occupational Psychology*, *52*(2), 129–148.

Widmer, R., Oswald-Krapf, H., Sinha-Khetriwal, D., Schnellmann, M., & Böni, H. (2005). Global Perspectives on E-Waste. *Environmental Impact Assessment Review*, *25*(5), 436–458.

Wilson, D., Velis, C., & Cheeseman, C. (2006). Role of Informal Sector Recycling in Waste Management in Developing Countries. *Habitat International*, *30*(4), 797–808.