The structure of wellbeing: study among Algerian workers using structural equation modeling

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Abstract

Wellbeing today is a magnet that brings the concerns of many researchers in the humanities and social sciences in general and psychology more precisely; especially the trend of positive psychology. Wellbeing is the cornerstone of most international and national programs and strategies that wish to achieve a prestigious position of the individual in the environment he lives in. In this context, our present study aimed to explore the structure of wellbeing in the Algerian work environment, starting from new and different theoretical conception of wellbeing new and different, but depends in large part on three of the models presented by a number of researchers, which are widely spread and employed in wellbeing studies. The main objective of this study was to test the model proposed by us using structural equation modeling on a sample of 1362 workers from the public and private sector in three states of Algeria, The result shows that the proposed model has good fit indicators, that is, it actually reflects the structure of wellbeing in the study population.

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Keywords: Wellbeing, Model, Structural Equation Modeling, Happiness, Algerian Worker.

ملخص:

تعتبر الصحة النفسية اليوم بمثابة المفاهيم الذي يجلب اهتمامات العديد
من الباحثين في العلوم الإنسانية والاجتماعية عموما و علم النفس بشكل أدق,
خاصة تيار علم النفس الإيجابي و هي حجر الزاوية في أغلب البرامج
 والاستراتيجيات الدولية والوطنية التي ترغب في تحقيق مكانة مرموقة للفرد في
البيئة التي يعيش فيها، و لهذا السياق هدفت دراستنا الحالية إلى استكشاف
بنية الصحة النفسية في بيئة العمل الجزائرية، منطلقين من تصور نظري
للصحة النفسية جديد و مختلف عن المألوف لكنه يعتمد جزء كبير منه
على ثلاث من النماذج المقدمة من طرف عدد من الباحثين و التي تشهد انتشارا و
توظيفا كبيرا في دراسات الصحة النفسية و ما يرتبط بها من مفاهيم، و عيله
سكان الهدف الرئيسي من هذه الدراسة اختبار النموذج المقترح من طرفنا عن
طريق النمذجة بالمعدلات البنائية على عينة مجملها 1362 عامل من
القطاعين العام والخاص و ثلاثة ولايات من الجزائر و صنفت النتيجة أن
النموذج المقترح يحظى بمؤشرات حسن مطابقة جيدة أي أنه يعبر فعلا عن
تركيب الصحة النفسية في مجتمع الدراسة.

الكلمات الدالة: الصحة النفسية، نموذج النمذجة بالمعدلات البنائية، السعادة،
العامل الجزائري.
1. INTRODUCTION:

Wellbeing, happiness, rest, flourishing and other related terms dominate the thinking of humanity since its beginning. Historically, whatever the successive ages and different civilizations, wellbeing has been at the center of human attention. Even extreme currents throughout history, such as racist movements did not resist the dominance of this idea on their philosophy, such as Nazism, whose pioneers believe that race is related to physical and psychological wellbeing or human perfection. That is; Wellbeing was and will remain the center of interest of the human race no matter how different their perceptions around it. For this reason, wellbeing and its associated concepts such as happiness, flourishing, wellness, and life satisfaction still at the core of the concerns of philosophers, sociologists and psychologists as a subject of knowledge and at the heart of the concerns of those working in technical and natural sciences as a desirable end.

Wellbeing is part of us during every moment of our life, with or without being aware of it. Ever since the beginning of the humanity eastern and western men have thought about wellbeing. Mainly, the primary purpose of thinking about wellbeing was to know how to and what does to mean being well and happy, humans also wanted to chair their experiences of wellness. In modern society organizations work to provide healthy workplace, because workplace with a positive approach to wellbeing and safety are better able to recruit and develop talent, enhanced productivity, are more creative and innovative, and have higher profit levels. Other positive impacts include a reduction of several key workplace issues including the risk of turnover, injury rates, absenteeism and performance, or morale problems.

As Petrova and Schwartz pointed for many scholars Well-being is one of the most commonly studied psychosocial outcomes among children, adolescents, and adults (e.g., Kahneman, Diener, & Schwarz, 2003). However, in recent decades, researchers have accumulated a much more nuanced view of what psychological well-being is about (see Forgeard et al., 2011; Huppert & So, 2013; Martela, 2016a) and
hundreds or even thousands of studies have uncovered what factors are affecting it (see, e.g., Diener, 2012; Veenhoven, 2014). (Gaël Brulé and Filomena Maggino, 2017). Although the precise meaning of “well-being” is elusive, the term generally is taken to refer to indices of positive adjustment, flourishing, and thriving (Linley, Joseph, Harrington, & Wood, 2006) – both physical and psychological. (Radosvita et al, 2017). The ambiguity increases when it comes to the Arab environment since the term wellbeing is used interchangeably with many more terms.

Like many words in common use, ‘well-being’ is easily understood in everyday language. Probing this concept, however, is a rigorous process, and reaching consensus on an agreed definition is extremely elusive (Jawad, 2017). The disagreements about the definition and the structure of well-being have led to a sometimes confusing debate about whether its dimensions are really separable and independent dimensions or it is only one construct with many names. The literature on SWB is concerned with how and why people experience their lives in positive ways, including both cognitive judgments and affective reactions. As such, it covers studies that have used such diverse terms as happiness, satisfaction, morale, and positive affect (Diener, 2009). One more time when it comes to translating into Arabic, the richness of the language and the cultural background make the situation more confusing; many researchers differ in translating the same terms. Inaccurate translations are circulated through research to produce a strange, possibly unhealthy body of knowledge. Part of the confusion regarding this issue has to do with the fact that the attention to well-being as it is now increased with the emergence of positive psychology and the rich amount of researches about the subject. Yet for decades psychologists largely ignored positive subjective well-being, although human unhappiness was explored in depth. In the last decade behavioral and social scientists have corrected this situation, and theoretical and empirical work is emerging at an increasingly faster pace (Diener, 2009). An added complication to the debate stems from disagreements about what distinguishes wellbeing from other terms and components like happiness, flourishing and psychological comfort. Some theorists argue that they are just degrees on the same continuum; other definitions deal with them as dimensions of wellbeing.

Definitions of wellbeing are, of course, products of their time and place. They produce a body of knowledge built around a research
agenda that expressed the issues of the moment. In this way, all definitions give us a sense of time and place, and it is through this sense that we get an insight of why different definitions emerged, their effect on the development of theory, how we engaged in research and the way our results were interpreted. What perhaps is critical to our understanding of how different models emerged lies more in two aspects; the different components that provided our models with structure, and the way in which those components are arranged in terms of the relationship they expressed. Both structure and relationship contributes to our understanding not just in terms of how definitions of wellbeing have evolved, but how the nature of that relationship has found expression in different theoretical models.

Thus, as definitions of wellbeing have evolved, it is now time to think in terms of the different components and the mechanism that makes it look like a single experience. If, as researchers, we are interested in understanding whether our definition (and therefore our model of wellbeing) represents the individual experience, then it is now time to develop definition that more explicitly capture the reality of the multidimensional experience. Our definition of wellbeing should now lead us towards models that point to the mechanisms that underlie and best express the nature of the wellbeing as process and output in the same time. In this way, when we think of the term “wellbeing,” we no longer think in terms of separated components, but more in terms of a process-output where the emphasis is on tracing out the mechanism of interaction between the process and the output. Such insight will lead us in a more focused direction to the specific nature of what is being experienced, allowing us to narrow solely the continuous debate about the used terms.

In this paper, we discriminate between wellbeing and the other related terms like happiness and life satisfaction. This does not mean that we are totally aware of the sometimes not so- subtle differences between them. Our research examines the structure of wellbeing in the context of cross-sectional study among a sample of Algerian workers. Wellbeing is seen as mental, emotional, affective and dynamic state experienced by the individual as a result of his awareness of the interaction of positive and negative factors and endeavor to achieve a balance between them in order to adapt, And reflected on the level of positive in his behavior ranging from the absence of mental illness and low stress to the highest levels of happiness. The central issues
addressed in this study are (a) whether well-being can be understood as a multidimensional phenomenon constitutes of process and aspects, and (b) the impact of the wellbeing process on wellbeing aspects.

2. The importance of the study:

The importance of the study is to build the wellbeing model according to a realistic and positive approach based on inclusiveness in taking into account all aspects of emotional, cognitive, social and behavioral impact on wellbeing based on the definition proposed by the researchers. The study also presents a new idea is dealing with wellbeing as a process and outcome as two basic components, one process and the other the aspects, and the expansion of the sub-dimensions of wellbeing to include new dimensions.

3. Objectives of the study:

This study aims to:

- Build and validate a wellbeing model.
- Contribute to the development of knowledge about wellbeing at work
- Review the concept of wellbeing.
- Identify the dimensions of wellbeing.
- Try to address deficiencies in known models and build a model that carries a holistic conception of wellbeing.

4. Review of Literature and Model Development

It is not possible to work on developing a model in any of the fields or around a concept without careful readings in the previous jurisprudence so as to avoid repetition, mistakes and achieve accumulation and progress. In this part of our paper we will try briefly to highlight the principle tenants in some of the most important models focusing on the composite dimensions of wellbeing in each model. There are other models in the domain of wellbeing, but we
think that the three models we are going to expose are used as framework for many other studies.

4.1 Ryff’s model of well-being

Ryff and her colleagues have developed a context-free model of well-being (Ryff, 1989; Ryff & Keyes, 1995). They proposed a six-dimensional model as they appear in Table 1. Confirmatory factor analysis supported the distinctions between these concepts, demonstrating that the relations among them could be accounted for by a latent second-order factor (Ryff & Keyes, 1995).

<table>
<thead>
<tr>
<th>Primary dimensions</th>
<th>dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective well-being (affect)</td>
<td>Self-acceptance</td>
</tr>
<tr>
<td>Professional well-being (motivation)</td>
<td>Personal growth</td>
</tr>
<tr>
<td></td>
<td>Purpose in life</td>
</tr>
<tr>
<td></td>
<td>Autonomy</td>
</tr>
<tr>
<td>Social well-being (behavior)</td>
<td>Environmental mastery</td>
</tr>
<tr>
<td></td>
<td>Quality of relation with others</td>
</tr>
</tbody>
</table>

4.2 Warr’s model of mental health

In his model Warr developed a model in work context, composed of four primary dimensions (affective wellbeing, aspiration, autonomy and competence) and a secondary fifth dimension as they are
displayed in Table 2 Warr’s main contribution was his focus on employee wellbeing.

Table 2.- wellbeing dimensions according to Warr (1987,1990,1994)

<table>
<thead>
<tr>
<th>Primary Dimensions</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective well-being (affect)</td>
<td>Affective well-being (anxiety, depression)</td>
</tr>
<tr>
<td>Professional well-being (motivation)</td>
<td>Aspiration</td>
</tr>
<tr>
<td></td>
<td>Competence</td>
</tr>
<tr>
<td></td>
<td>Autonomy</td>
</tr>
</tbody>
</table>

4.3 Van Horn model (2004)

Starting from a good lecture of Ryff’s and Warr’s models Van Horn and his colleagues proposed more extended model that comprises 10 dimensions and 5 primary dimensions as they appear in Table 3 Their contribution was the combination of the two models and the addition of two primary dimensions (cognitive and psychosomatic well-being)

Table 3.- wellbeing dimensions according to Joan E.Van Horn et al (2004)

<table>
<thead>
<tr>
<th>Primary Dimensions</th>
<th>dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective well-being (affect)</td>
<td>Affective well-being</td>
</tr>
<tr>
<td></td>
<td>Commitment</td>
</tr>
<tr>
<td></td>
<td>(Lack of) emotional exhaustion</td>
</tr>
<tr>
<td>Professional well-being (motivation)</td>
<td>Aspiration</td>
</tr>
<tr>
<td></td>
<td>Competence</td>
</tr>
</tbody>
</table>
The models exposed previously all share one common element; they all show the multi-dimensionality of the wellbeing concept. This is clearly demonstrated through the tables (02/03/04). They also do not make differences concerning the dynamics and the state of wellbeing, and they tend to deal with them as one.

4.5 The developed model

Our model seeks to describe and explain the affective, cognitive, social and behavioral aspects of wellbeing. Two fundamental assumptions underlie the model. The first assumption is that wellbeing is multi-dimensional phenomena. The second assumption, which will prove central to our study, is that the wellbeing is a combination of a process and aspects.

Before testing the model in the practical party, it is important to clarify our use of the term wellbeing. Wellbeing is a mental, emotional, affective and dynamic state experienced by the individual as a result of his awareness of the interaction of positive and negative factors and endeavor to achieve a balance between them in order to adapt, And reflected on the level of positive in his behavior ranging from the absence of mental illness and low stress to the highest levels of happiness.
The reader of the definition can from the first glance note that we put wellbeing in the area of absence from mental illness as an output and process. It is the emotional, mental and social dynamic state of individual; that is relatively stable and may be affected by change due to adaptation, at the same time it is the process by which the individual tries to balance the perceived challenges or positive and negative factors - internal and external - depending on his resources that meet in the wellbeing apparatus, All of this is reflected in wellbeing aspects such happiness, stress and positive behaviors

6. METHOD

6.1 Participants and procedure

Data were gathered during 2017 (September–April) by the researches from 1362 worker, working in 18 public and private institutions in the states of Djelfa, Mascara and Setif and might be considered representative of the work force in Algeria. The institution are located in the east, the center and the west of the country.in each state 6 settings were chosen randomly, each including about 60-250 workers. After receiving the heads of the institutions approvals to collect data, sessions of introductions were heled in order to introduce the study and grasp the participants’ attention, as consequence the majority of the workers agreed to participate. However, when the researchers arrived at the settings, only 1479 workers have agreed to participate and fill out the questionnaires booklet. It should be noted that 117 incomplete booklets were excluded from the analysis. Table 4 presents descriptive statistics for demographic variables of the participants. The sample was divided into two subsamples in order to perform the exploratory factor analysis (EFA) then the confirmatory factor analysis (CFA)

<table>
<thead>
<tr>
<th>Table 4.- Demography of the research participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

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<table>
<thead>
<tr>
<th></th>
<th>(N=539)</th>
<th></th>
<th>(N=351)</th>
<th></th>
<th>(N=472)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>326</td>
<td>60.48</td>
<td>245</td>
<td>69.80</td>
<td>315</td>
<td>66.73</td>
</tr>
<tr>
<td>Female</td>
<td>213</td>
<td>39.52</td>
<td>106</td>
<td>30.19</td>
<td>157</td>
<td>33.26</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 30</td>
<td>133</td>
<td>24.67</td>
<td>125</td>
<td>35.61</td>
<td>165</td>
<td>34.95</td>
</tr>
<tr>
<td>Between 30 and 40</td>
<td>208</td>
<td>38.58</td>
<td>116</td>
<td>30.04</td>
<td>175</td>
<td>37.07</td>
</tr>
<tr>
<td>More than 40</td>
<td>198</td>
<td>36.73</td>
<td>110</td>
<td>31.33</td>
<td>132</td>
<td>27.96</td>
</tr>
<tr>
<td><strong>Work experience</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 10y</td>
<td>256</td>
<td>47.49</td>
<td>196</td>
<td>55.84</td>
<td>212</td>
<td>44.91</td>
</tr>
<tr>
<td>Between 10y and 20y</td>
<td>166</td>
<td>30.79</td>
<td>87</td>
<td>24.78</td>
<td>157</td>
<td>33.26</td>
</tr>
<tr>
<td>More than 20y</td>
<td>117</td>
<td>21.70</td>
<td>68</td>
<td>19.37</td>
<td>103</td>
<td>21.82</td>
</tr>
<tr>
<td><strong>Sector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>354</td>
<td>65.67</td>
<td>228</td>
<td>64.95</td>
<td>286</td>
<td>60.59</td>
</tr>
<tr>
<td>Private</td>
<td>185</td>
<td>34.32</td>
<td>123</td>
<td>35.04</td>
<td>186</td>
<td>39.40</td>
</tr>
</tbody>
</table>

### 6.2 Instrumentation

The data collection instruments were developed following an exploratory sequential mixed method research design, from the dimensions of the model identified in the qualitative phase of the study. All the 13 developed scales used in this study were gathered in a booklet and printed in high quality paper, scored on a five-point Likert scale from 1=not at all true to 5=extremely true.
1- Self-Acceptance Scale (SASc): Based on a review of literature and writings on self-acceptance the researchers created a 20-item scale. SASc has two empirically derived subscales. The scale meant to reflect the level of self-satisfaction, and includes a realistic and objective understanding of self with the acceptance of its different aspects; whether positive or negative (strengths and weaknesses).

2- Emotional Balance Scale (EMSc): EMSc is a 15-item self-report measure of emotional balance. EMSc has two empirically derived subscales. The scale meant to reflect the resulting state from the individual's ability to control his emotions in order to achieve the required balance to deal efficiently with the various situations he faces.

3- General Commitment Scale (GCSc): GCSc is a 12-item self-report measure; it has three empirically derived subscales. The scale meant to reflect the sense of connection shown by the individual during the interaction with the environment (individuals / ideas / institutions ...) and the desire to maintain and develop the relationship; it is reflected in the willingness to participate to the degree of sacrifice or the abandonment that expresses the lowest levels of commitment.

4- Cognitive Style Scale (CSSc): CSSc is a 12-item self-report measure; it has two empirically derived subscales. The scale meant to reflect the ability of the individual to choose the method of collection and processing of information between the analytical and intuitive styles as required by the situation.

5- Self-Control Scale (SCSc): SCSc is a 12-item self-report measure; it has two empirically derived subscales. The scale meant to reflect the ability of the individual to control his psychological, behavioral and physical processes to move, inhibit and change in order to reconcile his values with the requirements of the situation and based on his appreciation of the cost of the act.

6- General Competence Scale (GCSc): GCSc is a 10-item self-report measure; it has two empirically derived subscales. The
scale meant to reflect the individual’s ability to behave well in the positions associated with achieving the goals set and with the minimum potential to achieve them while maintaining positive relationships with others.

7- Self-Development Scale (SDSc): SDSc is a 10-item self-report measure; it has three empirically derived subscales. The scale meant to reflect the individual’s ability to understand himself (assessment and evaluation) and accept the strengths and weaknesses in his abilities, aptitudes and capabilities, and work to develop them continuously through the development of appropriate goals and reproduce them to suit every new stage.

8- Autonomy Scale (ASc): ASc is a 15-item self-report measure; it has three empirically derived subscales. The scale meant to measure the individual's ability to make decisions, resist social pressures, adjust and regulate personal behavior while interacting with others with a positive level of responsibility.

9- Relations Management Style Scale (RMSc) ASc is a 15-item self-report measure; it has three empirically derived subscales. The scale meant to measure the individual's style to manage relationships in terms of how they begin and end, through his ability to communicate (talk, listen, use body language) And his evaluation of the softness and intensity in the situation.

10- Environmental Control Scale (ECSc): is a 15-item self-report measure; it has two empirically derived subscales. the scale meant to measure the individual's ability to make effective and positive use of the surrounding circumstances within the context of social relations.

11- Stress Scale (SSc): is a 15-item self-report measure; it has three empirically derived subscales. The scale meant to measure one of the manifestations of wellbeing resulting from the degree of balance in the work of the psychological system, which raises a sense of complex moral weight and inability or
disability and distress that affects the different aspects of the behavior and physiology of the individual

12-Happiness Scale (HSc): is a 13-item self-report measure; it has two empirically derived subscales. The scale meant to measure one of the manifestations of wellbeing resulting from the degree of balance in the work of the psychological system, which arouses a sense of satisfaction, comfort and energy.

13-Positive behavior Scale (PBSc): is a 15-item self-report measure; it has four empirically derived subscales. The scale meant to measure one of the manifestations of wellbeing resulting from the degree of balance in the work of the psychological system, which affects the levels of flexibility, finality, balance and appropriateness in the behavior of the individual.

6.3 Data processing

First, we performed a factor analysis (EFA) to reduce a large number of correlated variables into a number of independent factors. The EFA of the thirteen questionnaires was used for a triple purpose. First, with this approach, we were able to see the weight of the items in each scale in order to obtain a questionnaire with each selected dimension. Secondly, the calculation of Cronbach's alpha for each scale gave us very satisfactory values (see table 05) since the majority is above (Alpha0.7). This AF will then serve as a basis for confirmatory factor analysis (CFA). Reducing the dimensions of certain scales of measurements will give a fair representation of the data. The data was processed using SPSS v22 and AMOS v23.

6.4 Data analysis

Exploratory factor analysis (EFA)

It is highly recommended that Confirmatory Factor Analysis (CFA) should be performed after Exploratory Factor Analysis (EFA) in order to verify and confirm the scales derived from EFA. To perform the
factor analysis correctly, we made sure to include a sufficient number of items (minimum 5 items for each assumed factor). We also observed the correlation matrix in order to verify a majority of high correlations, after which we interpreted the significance tests such as the Kaiser-Meyer-Olkin index (KMO) and the Bartlett test. The Kaiser-Meyer-Olkin measure is an index of whether factor analysis is necessary. A high KMO (greater than .7) informs that there is a possibility of performing a factor analysis from a statistical point of view. Bartlett's sphericity test verifies the null hypothesis that all correlations would be zero.

For this study, we chose a Principal Component Analysis (PCA) and chose the VARIMAX rotation to make the average correlations (around .05) more divided by rotating the axes. As a result, the reading and interpretation of the axes will be simpler. The VARIMAX rotation also maximizes the variance of the correlations.

**Confirmatory factor analysis (CFA)**

Following the exploratory factor analysis, we passed to a validation more In-depth analysis of the structure of wellbeing at work by performing confirmatory factor analysis (CFA) on 681 participants.

Confirmatory factor analysis is a statistical treatment that is an extension of the exploratory factor analysis. The objective of confirmatory factor analysis is to test the robustness of the hypothetical model that emerged in the exploratory analysis. The postulate of the confirmatory analysis is to evaluate the difference between the hypothetical model and the observed model. The goal is to have no difference. In order to examine this lack of difference, indicators are calculated to measure the degree of the fit between the hypothetical model and the observed model.

7. RESULTS

7.1 The exploratory factor analysis results
The results for the thirteen scales show that the correlation matrix indicates correlations greater than at least .32. The KMO for the thirteen scales is above .73 which is good and the Bartlett test is very significant at .000. Cronbach's alpha for each scale gave us very satisfactory values (see table below) since the majority is above (Alpha 0.7)

Table 5.- The exploratory factor analysis main results

<table>
<thead>
<tr>
<th>Scales</th>
<th>Extracted factors</th>
<th>items</th>
<th>Alpha Cronbach</th>
<th>KMO</th>
<th>Bartlett</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-acceptance</td>
<td>03</td>
<td>20</td>
<td>0.830</td>
<td>0.739</td>
<td>Significant</td>
</tr>
<tr>
<td>Emotional balance</td>
<td>02</td>
<td>15</td>
<td>0.825</td>
<td>0.806</td>
<td>Significant</td>
</tr>
<tr>
<td>General Commitment</td>
<td>03</td>
<td>12</td>
<td>0.917</td>
<td>0.893</td>
<td>Significant</td>
</tr>
<tr>
<td>Cognitive Style</td>
<td>02</td>
<td>12</td>
<td>0.819</td>
<td>0.779</td>
<td>Significant</td>
</tr>
<tr>
<td>Self-control</td>
<td>02</td>
<td>12</td>
<td>0.745</td>
<td>0.761</td>
<td>Significant</td>
</tr>
<tr>
<td>General Competence</td>
<td>02</td>
<td>10</td>
<td>0.841</td>
<td>0.820</td>
<td>Significant</td>
</tr>
<tr>
<td>Self-development</td>
<td>03</td>
<td>10</td>
<td>0.819</td>
<td>0.773</td>
<td>Significant</td>
</tr>
<tr>
<td>Autonomy</td>
<td>03</td>
<td>15</td>
<td>0.871</td>
<td>0.813</td>
<td>Significant</td>
</tr>
<tr>
<td>Relations Management Style</td>
<td>03</td>
<td>15</td>
<td>0.893</td>
<td>0.858</td>
<td>Significant</td>
</tr>
<tr>
<td>Environmental Control</td>
<td>02</td>
<td>15</td>
<td>0.705</td>
<td>0.768</td>
<td>Significant</td>
</tr>
<tr>
<td>Stress</td>
<td>03</td>
<td>15</td>
<td>0.749</td>
<td>0.757</td>
<td>Significant</td>
</tr>
<tr>
<td>Happiness</td>
<td>02</td>
<td>13</td>
<td>0.757</td>
<td>0.837</td>
<td>Significant</td>
</tr>
<tr>
<td>Positive Behaviors</td>
<td>04</td>
<td>15</td>
<td>0.928</td>
<td>0.909</td>
<td>Significant</td>
</tr>
</tbody>
</table>
7.2 The confirmatory factor analysis results

The exploratory factor analysis served as a reference for the statistical treatment of our confirmatory factor analysis. The exploratory factor analysis confirmed the structural stability of the factors extracted from the exploratory analysis. The data has been processed with the AMOS software version 23.

First, we conducted a CFA on the measurement models than on the structural model, and the results were very satisfying. The wellbeing process model fits well with the Algerian worker population and has acceptable adjustment indices ($\chi^2 / df = 2.41$, CFI = .93, TLI = .95 and RMSEA = .07), which validates the model. Concerning the results of confirmatory factor analysis on the aspects of wellbeing model, two of the five indices are very satisfying; the chi-square / df = 4.82 reports that the model of wellbeing aspects fits well with the population of Algerian workers. The other indices are not very acceptable but we can emphasize that the CFI and the TLI are quite close to .90. On the other hand, the RMSEA is estimated above the threshold and largely acceptable. The results of this analysis can be taken into account.

**Fig.1.** The aspects of wellbeing measurement model (Adapted from Amos outputs)

\[ \chi^2 / df = 4.82 \]
\[ CFI = .88 \]
\[ GFI = .98 \]
\[ TLI = .87 \]
Emotional balance
General Commitment
Self-acceptance
Cognitive Style
Self-control
Self-development
Autonomy
Relations Management
Self-control
Environmental Control
Social wellbeing
Cognitive wellbeing
Emotional wellbeing

The process of wellbeing

χ² / dl = 2.41
CFI = .93
GFI = .98
TLI = .95
RMSEA = .07

Fig. 2. The process of wellbeing measurement model (adapted from Amos outputs)
After establishing a measurement models with fairly good model fit, the structural model is tested using the same set of fit indices. A comparison of all model fit indices with their respective recommended values provided proof of a good model fit (Table 3). Therefore, it is proceeded to examine the path coefficient of the structural model. The hypothesis testing results go along with the estimated path coefficient of the structural equation model. The only studied path was statistically significant and the standardized path coefficient and t-value are displayed in Figure 3.

![Fig.3. The path model of wellbeing (Adapted from Amos outputs)](image)

\[
\chi^2 / df = 3.67 \\
CFI = .96 \\
GFI = .97 \\
TLI = .94 \\
RMSEA = .06
\]

8. Discussion

In this study, our goal was to validate a model of wellbeing at work among public sector workers and to contribute to the development of knowledge about wellbeing at work. According to our definition wellbeing is the result of an interaction between two components: the process and the aspects. Inspired by the models of Ryff, Van Horn, and the work of Warr which apprehend wellbeing in a multiple-dimensional way; we have chosen to approach wellbeing at work by assessing it based on multiple-level, and we used many dimensions proposed by these three models, nevertheless we added totally new dimensions like positive behavior.

In our wellbeing model, we postulated that the wellbeing process would have a direct effect on wellbeing aspects, the path analysis
supported our assumption. On the other hand, we predicted that the wellbeing process is composed of ten sub-dimensions and other three sub-dimensions constitute the aspects of wellbeing, the Confirmatory factor analysis supported distinction among the 13 sub-dimensions. These results are consistent with our conceptualization of wellbeing as process and output at the same time. Our assumption about wellbeing structure which is supported by the results is not widely used; the two major components of wellbeing are independent of one another. When we say they are independent of each other, we do not mean that they are unrelated. On the contrary, the aspects are the results of process functioning.

In addition to the variables studied in the current study, the model can be extended by adding other related variables. Furthermore, our model doesn’t ignore the environment or many other personal variables which are not demonstrated in this model, and we do agree on their effects on wellbeing as studied by many other researchers. In fact wellbeing is the result of good internal functioning of the person and it is very difficult to surround, the final state is depending on the wellbeing process that makes adaptation works and it is affected by the environment in a dynamic way. If the process is functioning well; no matter the environment is the person could be happy and positive; however he can flourish and be more positive if the environment is more suitable.

As is well known to researchers in the field of social and human sciences in general, it is difficult to provide a very precise model to explain part of the human psychic, so all attempts have a potential weaknesses and so is as for our current model, where we objectively admit that it does not serve our full aspirations in the definition and structure of wellbeing, we also see that our current contribution on wellbeing opens the door to interpretation, prompting some other dimensions that can be included in the model.

References: