Authentic Leadership and Psychological Capital: A Mingle Effort to Increase Job Satisfaction and Lessen Job Stress

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Abstract

Objectives: The need to lower job stress and enhance job satisfaction among employees is critical. Hence, this paper observes the role of authentic leadership and psychological capital in increasing job satisfaction with job stress as a mediator in the Bangladeshi pharmaceutical industry.

Methods/Statistical Analysis: Present study is using simple random technique and collected data from 262 pharmaceutical industry employees by distributing and collecting questionnaire. Data were analyzed with the use of the SEM (Smart PLS 3). Results provided classical insights on the relationship between the variables examined in this study.

Findings: It is noted via existing empirical submissions those strong statistical relationships between authentic leadership, psychological capital, job stress and job satisfaction does exist. In present study, most of the authentic leadership and PSYCAP components influence job satisfaction positively. It has also been established that job stress was negatively related to job satisfaction. The indirect effect of job stress was insignificant. As this is the first study in Bangladesh's Pharmaceutical industry, hopefully the study will help in this industry to take decisions according to employee's job stress and job satisfaction. Implications and directions for future studies were explained accordingly.

Application/Improvements: There were no significant study in this context, this present study could be used to compare and decide right path to reduce job stress.

Keywords: Authentic Leadership, Psychological Capital, Job Satisfaction, Job Stress

1. Introduction

In order for companies to remain highly competitive in the present dynamic business environment, it must strategize and adapt accordingly to market trends and its challenges. Interestingly, inasmuch as market forces, competitive positioning, strategy and technology are critical to organizations remaining competitive, it is also important for them to identify novel approaches that should ensure improved job satisfaction, and reduced job stress among their employees.

Largely, organizations are faced with the challenge of getting leaner, improving organizational outcomes with practices that are more economical, attract and retain high-performing staff, reduced job stress and improve general organizational efficiency. However, key ingredients and factors needed to ensure the above rests on the leadership capabilities of the management of organizations in addition to factors that assemble the psychological capital of their employees. However, we argue that the knowledge about leadership behavior in relation to psychological capital, job satisfaction, and job stress is limited in terms of conceptual and methodological submissions in the pharmaceutical industry and especially among Bangladeshi workers.
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2. Authentic Leadership

Numerous studies in relation to the ability of authentic leadership focused largely on transformational and transactional leadership styles. It is our opinion therefore that leadership scholars pay attention to the role authentic leadership can play in relation to improving psychological capital, job satisfaction and in reducing job stress. Basically, the authentic leadership style has gained empirical prominence overtime because of the increased number of corporate scandals, malfaeance and unethical roles played by business leaders. This has thus necessitated the growing concern among researchers and industry practitioners to direct their empirical lens on this leadership style. Characteristically, the authentic leadership style expect leaders to display high degree of integrity, have deep sense of purpose and show commitment to the core values of the organizations they are leading and in promoting positive attitudes among employees, well-being of the employees which eventually contributes to organizational performance. Interestingly, four key components of the authentic leadership style is identified, they are, self-awareness, balanced processing, internalized moral perspective and relational transparency. Self-awareness depicts the display of people's understanding of themselves, characteristic of their potency and flaw vis-à-vis how they relate with others. Relational transparency denotes when one presents self really to others with the aim of promoting trust and proposing a secure environment for mutual growth. Balanced processing is the ability to impartially analyze information prior to taking a decision on how to use the information. Internalized moral perspective is an internalized and incorporated practice of self-regulation which is a function of inner ethical standards and values.

3. Psychological Capital

Psychological Capital (PSYCAP) represents a person’s positive psychological status of development and is distinguished by: 1. self-efficacy; 2. optimism; 3. Hope; and 4. resilience. Accordingly, psychological capital is a person’s motivational tendencies that grow through positive psychological constructs such as efficacy, optimism, hope, and resilience. The capacity of the PSYCAP construct is in tune with conceptual and empirical foundations to be distinct from each other. However, the construct has also been examined as stand-alone. Accordingly, it has been noted that PSYCAP is capable of influencing a number of organizational outcomes. However, the components of the PSYCAP construct will be discussed in the subsequent section in the development of the study hypotheses.

4. Authentic Leadership, Psychological Capital, Job Stress and Job Satisfaction

It is encouraged that an interaction between leadership and personal characteristics determines a number of organizational outcomes. As such, self-awareness, balanced-processing, internalized moral perspective, and relational transparency, being the center dimensions of authentic leadership are to examined on the basis of their individual merits in relation to their ability in determining improved job satisfaction and in reducing job stress within the scope of the present study. Authentic leadership influences various organizational outcomes. Interestingly, within the scope of the present study, we proposed that the dimensions of authentic leadership will determine job satisfaction.

H1: There is a relationship between authentic leadership and job satisfaction.
H1a: There is a relationship between self-awareness and job satisfaction.
H1b: There is a relationship between balanced processing and job satisfaction.
H1c: There is a relationship between internalized moral perspective and job satisfaction.
H1d: There is a relationship between relational transparency and job satisfaction.

Basically, PSYCAP is noted to influence diverse organizational outcomes. However, the role of each of the components of PSYCAP is further noted to influence organizations outcomes. Characteristically, self-efficacious people believe in their capacities to assemble the inspiration, cognition resources and paths of action essential to fruitfully execute a precise job within a given situation even within the face or organizational obstacles, thereby improving job satisfaction. Hopeful individuals enjoy goal pursuit. They tend to take risks even in the face of obstacles and possible failures. The hope that they will achieve their goals improves their job satisfaction psyche. Hope is most likely to generate posi-
tive expectations, responsibility which in turn is capable of generating job satisfaction\(^2\). Optimistic people identify with constructive actions in their life's which in turn strengthens their self-esteem and morale\(^2\). Optimists are more likely to give-in or give-up and it is also more probable that they display positive tendencies in even in the face of difficulties, thereby improving their level of job satisfaction\(^2\). On resilience, it is posited that people who are resilient have the capacity to overcome, turn and achieve new facts and skills, deeper associations with others and significance in life\(^2\). This special characteristic is capable of improving their job satisfaction notions, and has been proven in a number of studies. In view of the above positions, we hypothesize as follows:

H.2. Psychological Capital (PSYCAP) increases Job Satisfaction.
H.2a. There is a positive influence of Self-Efficacy on Job Satisfaction.
H.2b. There is a positive influence of Optimism on Job Satisfaction.
H.2c. There is a positive influence of Hope on Job Satisfaction.
H.2d. There is a positive influence of Resilience on Job Satisfaction.

On the relationship between job stress and job satisfaction, countless number of empirical investigations across diverse socio-demographic settings reported that job stress have an important effect on job satisfaction. That is hugely significant correlates. Interestingly too, most of the relationships have been negative\(^2,40-42\). That is, higher job stress leads to lowered or reduced job satisfaction. However, an interrelated relationship has also been found between job stress and job satisfaction\(^13,43\). In view of the above submissions, we hypothesize as follows:

H.3. There is a relationship between Job Stress and Job Satisfaction.

In the present study, we propose that job stress mediates the relationship between authentic leadership and job satisfaction and PSYCAP and job satisfaction. That is, authentic leadership behaviors and better PSYCAP attributes reduces job stress among the employees which eventually leads to better job performance. Therefore we hypothesize as follows:

H.4. Job Stress mediates the relationship between Authentic Leadership and Job Satisfaction.
H.4a. There is a mediating effect of Job Stress between Self-awareness and Job Satisfaction.
H.4b. There is a mediating effect of Job Stress between Internalized Moral Perspective and Job Satisfaction.
H.4c. There is a mediating effect of Job Stress between Balance processing and Job Satisfaction.
H.4d. There is a mediating effect of Job Stress between Relational Transparency and Job Satisfaction.
H.5. Job stress mediates the relationship between PSYCAP and Job Satisfaction.
H.5a. There is a mediating effect of Job Stress between Self-Efficacy and Job Satisfaction.
H.5b. There is a mediating effect of Job Stress between Optimism and Job Satisfaction.
H.5c. There is a mediating effect of Job Stress between Hope and Job Satisfaction.
H.5d. There is a mediating effect of Job Stress between Resilience and Job Satisfaction.

5. Method

5.1 Instrument

The 16 item Authentic Leadership Questionnaire (ALQ)\(^12\) was adapted. The ALQ is divided into four sub-scales of self-awareness, relational transparency, balanced processing and internalized moral perspectives. For psychological capital, the short form of the psychological capital questionnaire\(^17\) which contains total 12 items, and divided as efficacy 1-3, hope 4-7, resilience 8-10, and optimism 11-12, was adapted. For job satisfaction, we used the six items measures extracted from Brayfield and Rothe's 18-item index. For job stress, seven stress items by\(^46\) was used. Accordingly, a five-point Likert scale was used to measure the responses which are similar to what was used in previous studies\(^47-48\).

5.2 Pretesting

The instrument used for the present study consisted of 41 items. In order to ensure the validity and reliability of the instrument, a pilot study was conducted among 33 strategically selected respondents. Accordingly which is a measure of internal consistency or reliability was assess
with the use of the SPSS. The results showed that all the constructs fulfilled the internal consistency value on 0.7 as suggested by Nunnally.

5.3 Participants
Based on the probability sampling technique, 319 questionnaires were distributed among pharmaceutical workers in Bangladesh. However, only 262 of the questionnaires were eventually useful for further analysis. This represents 82.1% response rate. The total number of questionnaires analyzed agrees with . Who noted that for a regression type analysis, the sample size should be 5 to 10 times the number of independent variables? Babbie also noted that a 50% response rate is adequate for analyzing and reporting. Thus, the 82.1% response rate of this study is considered adequate.

5.4 Descriptive Statistics of the Variables
The descriptive statistics of the variables are illustrated in Table 1.

| Construct                   | Minimum | Maximum | Mean    | Standard Deviation |
|-----------------------------|---------|---------|---------|--------------------|
| Self-Awareness              | 1.00    | 5.00    | 3.6355  | .88801             |
| Internalized Moral Perspective | 2.00    | 5.00    | 3.6555  | .54964             |
| Balanced Processing         | 1.75    | 5.00    | 3.6918  | .67820             |
| Relational Transparency     | 1.75    | 5.00    | 3.4084  | .62912             |
| Self-Efficacy               | 1.67    | 5.00    | 3.4631  | .83666             |
| Hope                        | 2.00    | 5.00    | 3.3674  | .71607             |
| Resilience                  | 1.67    | 5.00    | 3.4644  | .71964             |
| Optimism                    | 1.00    | 5.00    | 3.5134  | .78955             |
| Job Stress                  | 1.71    | 4.71    | 3.0507  | .61911             |
| Job Satisfaction            | 1.00    | 4.83    | 3.2449  | .70464             |

As presented in Table 2, the results of the descriptive statistics shows that all the variables had mean values ranging from 3.0507 to 3.6918. The scores are acceptable mean scores of the variables of the study. Also, the standard deviation values for all the constructs are considered acceptable.

5.5 Statistical Analysis and Results
The PLS SEM, as proposed by Wold, is a common method that employed in the casual relationships estimation in the path models field for measuring latent constructs by several factors. In addition, PLS Algorithm is primarily a regression sequence to accomplish convergent fixed point equations. Also, the complexity of the model being examined in this study calls for the use of PLS-SEM.

5.5.1 Measurement Model Analysis
The measurement model is usually assessed to ascertain the relationship between constructs and items, and the correlation relationships between constructs. Of the total number of items in the instrument of the study, three items were dropped for further analysis as they did not meet the low loadings threshold suggested. However, in measuring reflective constructs, Worthington and Whittaker and Yong and Pearce argued that as long as the provisions of content validity are not violated, two items should be enough to measure a construct. Supporting the above position noted that deleting indicators with low loadings improves the Average Variance Extracted (AVE) which in turn boosts the convergent and discriminate validity.

5.5.1.1 Content Validity
The content validity is used to denote when the items used to measure a construct display higher loadings on their construct than other constructs in the model. Therefore, based on the suggestion of Chin (1998) the factor loadings were used to examine the content validity. Accordingly, items that loaded higher on other constructs than their loadings were deleted. Interestingly, results showed that all the items loaded highly on their respective constructs are more than other constructs, thus confirming the content validity of the measurement model. Refer to Table 3 for content validity measures.

5.5.1.2 Convergent Validity
The core of convergent validity is to review the quantity to which a set of items converge to measure a certain construct. Obviously, loadings, composite reliability and the AVE are applied one valuating convergent validity. Factor
Table 2. Convergent validity assessment

| Construct               | Item            | Loading | Composite Reliability | AVE   | Convergent Validity (AVE > 0.5) |
|-------------------------|-----------------|---------|-----------------------|-------|--------------------------------|
| Self-Awareness          | Awareness 3     | 0.936   | 0.886                 | 0.795 | Yes                            |
|                         | Awareness 4     | 0.846   |                       |       |                                 |
| Self-Efficacy           | Efficacy 1      | 0.887   | 0.882                 | 0.714 | Yes                            |
|                         | Efficacy 2      | 0.888   |                       |       |                                 |
|                         | Efficacy 3      | 0.753   |                       |       |                                 |
| Hope                    | Hope 1          | 0.658   | 0.770                 | 0.459 | No/Acceptable                   |
|                         | Hope 2          | 0.807   |                       |       |                                 |
|                         | Hope 3          | 0.622   |                       |       |                                 |
|                         | Hope 4          | 0.604   |                       |       |                                 |
| Internalized Moral Perspectives | Moral 3 | 0.778   | 0.734                 | 0.580 | Yes                            |
|                         | Moral 4         | 0.745   |                       |       |                                 |
| Optimism                | Optimism 1      | 0.583   | 0.748                 | 0.611 | Yes                            |
|                         | Optimism        | 0.939   |                       |       |                                 |
| Balanced Processing     | Processing 1    | 0.617   | 0.746                 | 0.497 | No/Acceptable                   |
|                         | Processing 2    | 0.784   |                       |       |                                 |
|                         | Processing 3    | 0.704   |                       |       |                                 |
| Resilience              | Resilience 1    | 0.884   | 0.783                 | 0.646 |                                |
|                         | Resilience 3    | 0.715   |                       |       |                                 |
| Job Satisfaction        | Satisfaction 1  | 0.695   | 0.897                 | 0.637 |                                |
|                         | Satisfaction 2  | 0.888   |                       |       |                                 |
|                         | Satisfaction 4  | 0.696   |                       |       |                                 |
|                         | Satisfaction 5  | 0.835   |                       |       |                                 |
|                         | Satisfaction 6  | 0.856   |                       |       |                                 |
| Job Stress              | Stress 1        | 0.572   | 0.776                 | 0.333 | No/Acceptable                   |
|                         | Stress 2        | 0.509   |                       |       |                                 |
|                         | Stress 3        | 0.569   |                       |       |                                 |
|                         | Stress 4        | 0.671   |                       |       |                                 |
|                         | Stress 5        | 0.574   |                       |       |                                 |
|                         | Stress 6        | 0.555   |                       |       |                                 |
|                         | Stress 7        | 0.577   |                       |       |                                 |
| Relational Transparency | Transparency 1  | 0.525   | 0.708                 | 0.567 | Yes                            |
|                         | Transparency 4  | 0.926   |                       |       |                                 |

Table 3. Loadings and cross loadings

| Items              | Self-Aware. | Int. Mor. Pers. | Bal. Pro. | Rel. Trans. | Self-Eff. | Optimism | Hope | Resilience | JS | Job Satis. |
|--------------------|-------------|-----------------|-----------|-------------|-----------|----------|------|------------|----|-----------|
| SA                 | 0.936       | 0.108           | 0.248     | 0.151       | -0.058    | -0.051   | -0.002| 0.071      | 0.241| 0.074     |
|                    | 0.846       | 0.170           | 0.232     | 0.104       | 0.101     | 0.109    | 0.107 | 0.054      | 0.138| 0.099     |
loadings, AVE and composite reliability should be at least 0.7, 0.5, and 0.7 respectively. Table 4 illustrates convergent validity. However, the 0.3 value of AVE is acceptable on the condition that composite reliability is higher than 0.6, the convergent validity of the construct is acceptable. Hence, in Table 3, some constructs has AVE values that are less than 0.5, but with considerably high composite reliability.

### 5.5.1.3 Assessment of Discriminate Validity

The discriminate validity assessment is assessed to determine that authentic leadership, psychological capital, job stress and job satisfaction was distinct. The following tables illustrate the assessments.

### 5.6 Assessment of the Structural Model

After assessing the measurement model with attended criteria, the proposed hypotheses were examined by running Smart PLS’s Algorithm and Bootstrapping. The results are presented in the following Table 5. However, before the paths coefficient is reported, the co linearity assessments were done. Table 6 indicates the values are

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| IMP   | 0.100 | 0.778 | 0.068 | 0.180 | -0.067 | 0.118 | 0.156 | 0.177 | -0.121 | 0.178 |
|-------|-------|-------|-------|-------|--------|-------|-------|-------|--------|-------|
| 0.011 | 0.745 | 0.159 | 0.148 | 0.152 | 0.308  | 0.277 | 0.151 | 0.087 | 0.190  |
| BP    | 0.134 | 0.213 | 0.617 | 0.069 | -0.090 | -0.404 | 0.143 | -0.155 | -0.088 | -0.103 |
| 0.184 | 0.032 | 0.784 | 0.394 | 0.017 | -0.178 | -0.052 | -0.099 | 0.063  | -0.186 |
| 0.248 | -0.028 | 0.704 | 0.267 | -0.065 | -0.044 | -0.044 | 0.010  | -0.137 |
| RT    | -0.028 | 0.020 | 0.299 | 0.525 | 0.074  | 0.021 | -0.049 | -0.024 | 0.058  | -0.101 |
| 0.183 | 0.241 | 0.317 | 0.926 | -0.057 | -0.040 | -0.166 | 0.184  | 0.160  | -0.208 |
| SE    | 0.064 | 0.075 | 0.068 | -0.013 | 0.887  | 0.425 | 0.647 | 0.365  | -0.159 | 0.508 |
| 0.026 | -0.025 | -0.150 | -0.079 | 0.888  | 0.405 | 0.572 | 0.337  | -0.071 | 0.463 |
| -0.105 | 0.084 | -0.056 | 0.052 | 0.753  | 0.321 | 0.426 | 0.448  | -0.276 | 0.297 |
| OPT   | -0.051 | 0.243 | -0.004 | 0.199  | 0.027  | 0.583 | 0.129  | 0.095  | -0.053 | 0.233 |
| 0.039 | 0.225 | -0.168 | -0.115 | 0.532  | 0.939  | 0.511 | 0.348  | -0.234 | 0.504 |
| HOPE  | -0.066 | 0.299 | 0.038 | 0.048  | 0.571  | 0.339 | 0.658  | 0.516  | -0.215 | 0.444 |
| 0.072 | 0.228 | -0.082 | -0.201 | 0.468  | 0.465  | 0.807 | 0.193  | -0.371 | 0.579 |
| 0.166 | 0.186 | 0.125 | -0.255 | 0.341  | 0.089  | 0.622 | 0.119  | -0.158 | 0.353 |
| -0.064 | -0.016 | -0.063 | -0.001 | 0.410  | 0.325  | 0.604 | 0.026  | -0.246 | 0.230 |
| RES   | 0.144 | 0.124 | -0.194 | 0.057  | 0.445  | 0.333 | 0.268  | 0.884  | -0.112 | 0.487 |
| -0.069 | 0.254 | 0.042 | 0.221  | 0.240  | 0.170  | 0.284 | 0.715  | -0.280 | 0.230 |
| JS    | 0.070 | -0.108 | 0.052 | 0.107  | -0.115 | -0.154 | -0.228 | 0.017  | 0.572  | 0.009 |
| -0.035 | -0.316 | -0.110 | 0.000  | 0.090  | -0.043 | -0.228 | -0.053 | 0.509  | -0.221 |
| 0.211 | 0.036 | 0.064 | -0.010 | 0.046  | 0.014  | -0.133 | 0.129  | 0.569  | 0.003 |
| 0.176 | -0.019 | 0.119 | 0.025  | -0.240 | -0.398 | -0.250 | -0.247 | 0.671  | -0.280 |
| 0.120 | 0.144 | -0.030 | 0.117  | -0.057 | 0.006  | -0.158 | -0.134 | 0.574  | -0.097 |
| 0.376 | 0.204 | 0.193 | 0.254  | -0.100 | -0.078 | -0.121 | -0.115 | 0.555  | 0.029 |
| 0.013 | -0.068 | -0.164 | 0.122  | -0.216 | -0.077 | -0.340 | -0.213 | 0.577  | -0.221 |
| JSA   | 0.109 | 0.336 | 0.025  | -0.053 | 0.160  | 0.263  | 0.366 | 0.272  | -0.216 | 0.695 |
| -0.018 | 0.261 | -0.316 | -0.315 | 0.425  | 0.460  | 0.587 | 0.418  | -0.246 | 0.888 |
| 0.285 | 0.116 | 0.069 | -0.090 | 0.384  | 0.236  | 0.474 | 0.291  | -0.081 | 0.696 |
| 0.025 | 0.246 | -0.208 | -0.074 | 0.505  | 0.492  | 0.555 | 0.453  | -0.202 | 0.835 |
| 0.057 | 0.047 | -0.269 | -0.270 | 0.491  | 0.497  | 0.498 | 0.402  | -0.219 | 0.856 |
well less than the problematic value of 3.3 as suggested by Diamantopoulos.

**Table 4.** Discriminant validity assessment (Fornel and Larcker, 1981)

|                            | BP   | Hope  | IMP | JS   | JS   | Opt  | RT   | RES  | SA   | SE   |
|---------------------------|------|-------|-----|------|------|------|------|------|------|------|
| Balanced Processing       | 0.705|       |     |      |      |      |      |      |      |      |
| Hope                      |      | -0.008| 0.678|      |      |      |      |      |      |      |
| Internalized Moral        | 0.075| 0.282 | 0.762|      |      |      |      |      |      |      |
| Perspectives              |      |       |      |      |      |      |      |      |      |      |
| Job Satisfaction          |      | -0.210| 0.629| 0.241| 0.798|      |      |      |      |      |
| Job Stress                |      | 0.016 | -0.381| -0.027| -0.245| 0.577|      |      |      |      |
| Optimism                  |      | -0.143| 0.477 | 0.276 | 0.508 | -0.216| 0.781|      |      |      |
| Relational Transparency   | 0.388| -0.162| 0.216 | -0.218| 0.160 | -0.026| 0.753|      |      |      |
| Resilience                |      | -0.122| 0.336 | 0.216 | 0.471 | -0.220| 0.328| 0.150| 0.804|      |
| Self-Awareness            | 0.269| 0.046 | 0.147 | 0.094 | 0.222 | 0.015 | 0.147| 0.072| 0.892|      |
| Self-Efficacy             |      | -0.046| 0.660 | 0.052 | 0.511 | -0.190| 0.458| -0.020| 0.445| 0.006|
|                           |      |       |      |      |      |      |      |      |      | 0.845|

**Table 5.** Heterotrait-Monotrait assessment

|                            | BP   | Hope  | IMP | JS   | JS   | OPT  | RT   | RES  | SA   | SE   |
|---------------------------|------|-------|-----|------|------|------|------|------|------|------|
| Balanced Processing       | 0.338|       |     |      |      |      |      |      |      |      |
| Hope                      |      | 0.319 | 0.798 | 0.527|      |      |      |      |      |      |
| Internalized Moral        | 0.380| 0.826 |     |      |      |      |      |      |      |      |
| Perspectives              |      |       |      |      |      |      |      |      |      |      |
| Job Satisfaction          |      | 0.380 | 0.610 | 0.623| 0.312|      |      |      |      |      |
| Job Stress                |      | 0.491 | 0.744 | 0.865| 0.757| 0.421|      |      |      |      |
| Optimism                  |      | 0.041 | 0.493 | 0.837| 0.379| 0.441| 0.594|      |      |      |
| Relational Transparency   | 0.335| 0.626 | 0.648 | 0.691| 0.485| 0.610| 0.623|      |      |      |
| Resilience                |      | 0.419 | 0.226 | 0.345| 0.160| 0.323| 0.153| 0.289| 0.221|      |
| Self-Awareness            | 0.183| 0.819 | 0.326 | 0.580| 0.318| 0.610| 0.203| 0.709| 0.132|      |
| Self-Efficacy             |      |       |      |      |      |      |      |      |      |      |

|                            | Job Stress | Job Satisfaction |
|---------------------------|------------|------------------|
| Authentic Leadership      | 1.200      | 1.105            |
| Self-Awareness            | 1.392      | 1.365            |
| Balanced Processing       | 1.352      | 1.338            |
| Internalized Moral        | 1.453      | 1.434            |

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|                  |          |
|------------------|----------|
| Hope             | 2.559    |
| Optimism         | 1.490    |
| Self-Efficacy    | 2.293    |
| Resilience       | 1.479    |

As depicted in Figure 1 and Table 7, the relationships between the variables as hypothesized are all noted. The relationship between self-awareness, balanced processing, relational transparency, optimism, hope, resilience and job satisfaction were all significant and thus accepted.
### Table 7. Paths coefficient results

| Direct Effect (β) | Standard Error (STDEV) | T Statistics (|O/STDEV|) | P Values | Result |
|------------------|------------------------|---------------------------|----------|--------|
| Self-Awareness -> Job Satisfaction | 0.099 | 0.047 | 2.084 | 0.019 | Significant/Accepted |
| Internalized Moral Perspectives -> Job Satisfaction | 0.060 | 0.069 | 0.865 | 0.194 | Not significant/Not Accepted |
| Balanced Processing -> Job Satisfaction | -0.109 | 0.061 | 1.777 | 0.038 | Significant/Accepted |
| Relational Transparency -> Job Satisfaction | -0.178 | 0.049 | 3.604 | 0.000 | Significant/Accepted |
| Self-Efficacy_ -> Job Satisfaction | 0.059 | 0.077 | 0.756 | 0.225 | Not significant/Not accepted |
| Optimism -> Job Satisfaction | 0.185 | 0.071 | 2.598 | 0.005 | Significant/Accepted |
| Hope -> Job Satisfaction | 0.371 | 0.072 | 5.131 | 0.000 | Significant/Accepted |
| Resilience -> Job Satisfaction | 0.256 | 0.058 | 4.442 | 0.000 | Significant/Accepted |
| Job Stress -> Job Satisfaction | 0.014 | 0.080 | 0.174 | 0.431 | Not Significant/Not Accepted |

### Table 8. Indirect effects assessment

| Indirect Effect | Standard Error (STERR) | T Statistics (|O/STERR|) | Confidence Interval Low | Confidence Interval Up | P-Values | Result |
|----------------|------------------------|---------------------------|-------------------------|------------------------|----------|--------|
| Self-Awareness -> Job Stress -> Job Satisfaction | -0.054 | 0.025 | 2.154 | -0.086 | 0.024 | 0.032 | Significant |
| Internalized Moral Perspectives -> Job Stress -> Job Satisfaction | 0.045 | 0.052 | 0.859 | -0.050 | 0.128 | 0.391 | Not Significant |
| Balanced Processing -> Job Stress -> Job Satisfaction | -0.001 | 0.036 | 0.026 | -0.096 | 0.054 | 0.979 | Not Significant |
| Relational Transparency -> Job Stress -> Job Satisfaction | -0.027 | 0.028 | 1.089 | -0.077 | 0.016 | 0.277 | Not Significant |
| Hope -> Job Stress -> Job Satisfaction | 0.084 | 0.038 | 2.217 | 0.019 | 0.146 | 0.027 | Significant |
| Optimism -> Job Stress -> Job Satisfaction | 0.013 | 0.025 | 0.526 | -0.040 | 0.016 | 0.599 | Not Significant |
| Resilience -> Job Stress -> Job Satisfaction | 0.039 | 0.026 | 1.493 | -0.028 | 0.081 | 0.136 | Not Significant |
| Self-Efficacy -> Job Stress -> Job Satisfaction | -0.003 | 0.027 | 0.110 | -0.058 | 0.054 | 0.913 | Not Significant |
Contrarily, the relationship between internalized moral perspectives, self-efficacy, and job stress and job satisfaction were all insignificant and thus rejected. On \( r^2 \) assessment, results indicate substantiality with job stress and job satisfaction having \( r^2 \) values of 0.264 and 0.560 respectively. On effect size (\( f^2 \)), the values ranged between small and medium for all the independent variables. On the mediating effect assessment, Table 8 illustrates the results. The indirect effect of job stress on the relationship between authentic leadership and psychological capital and job satisfaction was assessed. Of the tests, on the relationship between self-awareness and hope were significant with job stress as mediator. The other relationships are not significant.

Table 9. Predictive quality indicators of the model

| Construct                | Cross-Validated Communality | Cross-Validated Redundancy |
|--------------------------|-----------------------------|---------------------------|
| Balanced Processing      | -0.283                      |                           |
| Hope                     | 0.121                       |                           |
| Internalized Moral Pers. | -0.387                      |                           |
| Job Satisfaction         | 0.458                       |                           |
| Optimism                 | 0.042                       |                           |
| Relational Transparency  | -0.023                      |                           |
| Resilience               | 0.053                       |                           |
| Self-Awareness           | 0.342                       |                           |
| Self-Efficacy            | 0.343                       |                           |
| Job Stress               | 0.094                       |                           |

6. Conclusion

Job satisfaction is an important factor in retaining employees and for general organizational performance. Therefore, organizations need to ensure their employees are less stressed and their level of satisfaction is increased. This concern is addressed vis-à-vis the findings of this study. Generally, it is found that AL and PSYCAP are critical and important predictors of job satisfaction among pharmaceutical employees. However, internalized moral perspectives, self-efficacy and job stress did not significantly predict job satisfaction. A plausible explanation is that the pharmaceutical employees do not believe that their thoughts on organizational activities and their level of self-confidence are not enough to determine their level of job satisfaction. More so, the relationship between job stress and job satisfaction, though statistically insignificant, theoretically is apt. naturally, increased job stress should lead to reduced levels of job satisfaction. This same reason is attributable to the indirect effects results. Other plausible reasons may be that the work culture, LMX and general organizational climate are not enough to positively affect these components of the AL, PSYCAP and Job Stress that did not predict Job Satisfaction.

Therefore, management of the pharmaceutical industries should institute mechanisms aimed at ensuring better AL attributes from its management team, and also measures that would improve the PSYCAP of their...
employees. Succinctly put, better AL attributes and improved PSYCAP qualities of employees improves the level of job satisfaction of the employees. Also, it is also found in this study that job stress is able to mediate the relationship between AL, PSYCAP and job satisfaction. That is, AL behaviors and better PSYCAP features of the employees reduced job stress which eventually led to improved job satisfaction.

On implication and direction for future studies, the data do not allow an unquestionable determination of the hypothesized causality, other causal links and explanations being plausible. For example, better AL attributes from supervisors and employees with higher PsyCap and with better job satisfaction levels may motivate management to reciprocate and be more transparent with them and to solicit views that challenge deeply held positions. Leaders may feel free to behave more authentically if they perceive high levels of psychological resources in their employees. This was not considered in the present study. As such a reverse test of the relationship of this study is suggested in the future. Another limitation of this study is that only one mediating variable was examined. Future studies may include other mediating variables for explaining why AL and PSYCAP tend to promote job satisfaction. A typical example is organizational climate. Additionally, future studies may adopt team and/or organizational levels of analysis and test if the collective phenomena identified by also perform when studying joint (collective) job satisfaction. Studying a single culture may produce some eccentric findings. For example, does the feminine and highly in-group collectivistic features of the Bangladeshi culture make Bangladeshi employees more sensitive to authentic leaders than the employees from masculine and low in-group collectivistic cultures? Future studies may use a cross-cultural research method for testing if culture moderates the relationship between AL, PSYCAP and dependent variables.

For the industry, this study opined that AL and PSYCAP and Job stress interrelate in improving job satisfaction of employees of the pharmaceutical industry. Hence, it is important to select leaders with authentic characteristics and train them at increasing their AL qualities. The pharmaceutical industry in Bangladesh needs to invest not only in human and social capital, but also in PSYCAP. This will help reduce their job stress and improve their levels of job satisfaction.

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