STRENGTHENING EMPLOYEE’S ENGAGEMENT IN E-COMMERCE BUSINESS DEPARTMENT THROUGH AN ODI APPROACH

Narachai Treetipbut¹ and Rita Aloni²

Abstract

This action research dissertation is aimed to enhance the level of employees’ engagement in a flux business environment that deals with e-Commerce business operations. As a start-up firm, the focal organization often experiences certain unalignments between executives and employees or even among employees themselves. This study is expected to add extra knowledge to an academic body; while, also enhancing business results via improved employee engagement. The paper aims to determine whether an existing engagement model could be re-applied to e-commerce where operation is highly dependable on the talent, commitment and creativity of the business’ personnel. The study also compares levels of significance between pre-ODI and post-ODI that are concerned with “employee efficiency” and “organization performance”. Furthermore, ODI papers studying “employee engagement” in relation to the digital industry are still considered rare and limited.

In conclusion, there are 3-major phases in this action research study; namely pre-ODI, ODI and Post-ODI. The research results shall elaborate whether there are significant changes in participant quantitative responses in a comparison between pre-ODI and post-ODI.


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INTRODUCTION

Fleming, et al (2005) elaborated that engaging organizations often have increased company earnings at a rate of 2.6 times that of those with a disengaging environment. When employees are motivated, committed and engaged, they enthusiastically support corporate vision, mission and organization strategies. Once an individual reaches a flow state, the organization can perform effectively and efficiently where monitoring and control parameters are unnecessary (Csikszentmihalyi, 1990). Furthermore, the “Engagement” theory is constructed from various frameworks; therefore, there is no singular agreement on the definition or appropriate concept toward “engagement” practices (Kular, et al. 2008). Thus, a “conceptual-framework” and “intervention-activity” was designed around the existing “engagement” theory, in order to compliment the operation efficiency of a focal organization. This was required as the focal organization is in the e-commerce sector, which often holds a specific set of business processes that lead to unique employee behavior. E-Commerce businesses are constantly evolving with fast-changes in technological advancement (McMurtrey et al., 2008) which causes regular changes in job-descriptions, job expectations and a number of other diverse business-related variables. Yet, Kim & Lee (2006) describe such effects as “blurring both job requirements and skills that are in demand”. Furthermore, technological development has been progressing for over 40 years. However, Brynjolfsson and Yang (1996) suggested that the “effects of these advances are much larger in recent years”.

NEED OF RESEARCH STUDY

The digital era has changed customers’ demands and how they behave and make decisions. Therefore, product and service providers must constantly react so as to stay in accordance to those prerequisites. The rise of the middle-class in Indonesia, the Philippines, Malaysia, and Vietnam has attracted global investors to the entire region which has become the center of attention in global economic discussion. Therefore, employees have more choices when choosing their employers. Ling (2012) further asserted that “engagement” aspects in Asia’s nations are dissimilar to their Western counterparts. With the high availability of job-opportunities, employees are now more selective with whom they work for and why they decide to stay or leave a particular organization.

As e-Commerce is expanding at an accelerating speed, Bielawska (2015) suggested that e-Commerce firms require human abilities to innovate effectively. Where, “Hi-Tech” firms are “proactive, anticipating changes in the environment”, traditional industries are often engaged in a more “Passive or Reactive Strategy” and often invest in tangible assets. Therefore, to construct a sustainable e-Commerce organization, an executive should concentrate not only on business strategy but also employee commitment and employees’ willingness to learn and innovate (Bielawska, 2015). It is necessary to bring new insight on “employee engagement” and “firm performance” into the Thai context so that executives can operate their businesses more efficiently by focusing on “people” attributes rather than monetary mediums.
RESEARCH OBJECTIVE

According to Zweifel’s (2010) study “finding ways to increase rates of employee and customer engagement would result in a greater return”, such as “sustainable growth, loyal customers, lower (marketing) cost and increased brand reputation”. Therefore, it is important to develop an effective model that may impact all levels of employee engagement. Objectives of this research are to:

1) Execute an OD intervention to impact major engagement variables, namely: “job-meaningfulness”, “work-environment”, and “resource availability”

2) Quantify and authenticate relationships between employee engagement and business performance to form a successive intervention approach that is implementable to similar businesses.

3) Establish basic understanding of engagement and performance for executive in regard to investment in employee attribute.

Diagnosis variables are limited to these following factors: “organization structure”, “corporate-culture”, “human resource system” and “corporate vision”. Most importantly; it will be possible to expand the applications of the results from the intervention activity to inform operations of an entire organization.

Hypothesis

The hypothesis identifies the effect of “intervention” on each of the “engagement variables”; and allows the exploration of changes in departmental performance between the pre-ODI and post-ODI periods. The quantitative data shall inform statistical assumption while; qualitative information will be used to guide the researchers regarding respondents’ individuality. The hypotheses were categorized in accordance with the major engagement variables; including their sub-components, as follows: “Job Meaningfulness”, “Working Environment”, “Resource Availability” and “Sense of Engagement”.

General Difference Hypotheses

\[ H_0: \text{There is no significant difference between pre-ODI and post-ODI data for any of the “engagement variables”.} \mu_{post} = \mu_{pre} \]

\[ H_a: \text{There is a significant difference between pre-ODI and post-ODI data for any of the “engagement variables”.} \mu_{post} > \mu_{pre} \]

Hypotheses by Engagement Variable

\[ H_0: \text{There are no significant differences in participant perception toward “job-meaningfulness”, “working environment”, and “resource availability”, between pre-ODI and post-ODI phases.} \mu_{post} = \mu_{pre} \]

\[ H_a: \text{There are significant differences in participant perception toward “job-meaningfulness”, “working environment”, and “resource availability” between pre-ODI and post-ODI phases.} \mu_{post} > \mu_{pre} \]

\[ H_0: \text{There is no significant difference in the participants’ “sense of engagement” between pre-ODI and post-ODI phases.} \mu_{post} = \mu_{pre} \]

\[ H_a: \text{There is a significant difference in the participants’ “sense of engagement” between pre-ODI and post-ODI phases.} \mu_{post} > \mu_{pre} \]

Driver of Employee Engagement

Various scholars have identified different variables that could lead to an “engagement” scheme. Understanding these “factors” would
help an organization to initiate appropriate tools and action plans to positively enhance employees’ commitments. McBain (2007) defined “engagement variables” as: “factors that enrich engagement among employees” and “also as components of the employee proposition that an organization offers to its people”. Furthermore, Saks (2006) has conducted research on “antecedents and outcomes of employee engagement” and found out that “job characteristics, perceived organization support, reward and recognition” are a significant motivator of “engagement”. Other researchers (Baker & Demerouti, 2008; Bakker, et al., 2005; Salanova, Agut, & Peiro, 2005) are convinced that “job engagement” has significant relationships with job characteristics that are composed of “resources and motivator”.

![Figure 1: Engagement Driver Variables](Image)

**CONCEPTUAL FRAMEWORK**

The previous frameworks developed by Saks (2006), Clifford (2010) and May et al., (2004) share similar variables in construction, testing and verification of the cause and effect of “employee engagement”. These researchers agreed that “employees” do play multiple roles while they are active in an organization. They are not only obliged as an “employee” but also a “member” of their organization, who are therefore able to influence other members and the organization. Also, these researchers constructed their framework based on the fundamental research of Kahn (1990) an “Index of Organization Reaction”; that emphasized the psychological “meaningfulness”, “safety” and “availability” of employees who have a dynamic impact on the organization environment. The Index of Organization Reaction instrument has been previously validated by Smith (1977), Dunham et al. (1977), Maslach, Schaufeli and Leiter (2001) and Baumruk (2004).

Referring to the engagement variables from the Index of Organization Reaction the conceptual framework was constructed with 3 major variables 1) Job-Meaningfulness, 2) Working Environment and 3) Resource Availability.

![Figure 2: Conceptual Framework](Image)
RESEARCH METHODOLOGY

Due to an attempt to identify employees’ psychological and behavioral state with regarding “engagement”, this research utilized both quantitative and qualitative methodology. The qualitative approach was designed to explore the abstract underlying values of individuals which are sometimes “hidden” within the individual. Kothari (2004) also provides elaboration of this method as “Motivation Research”, aimed to “discover underlying motive and desire” using an interview approach. The quantitative approach in this research is designed to form a generalized pattern that could represent a group’s perspective. These measurable instruments consisted of 2 parts constructed with a 5-point Likert Scale.

The choices of intervention (activity) depended on the enhancement of engagement-related variables, namely: “Work Meaningfulness”, “Work Environment” and “Resource Availability”. This also aligns with existing literature (Bakker & Demerouti, 2008; Schaufeli & Bakker, 2004; Saks, 2006) that “engagement” can be established from: the job itself, co-workers or supervisors, the working environment, career advancement, psychological reward or task variety. Therefore, three interventions (Appreciative Inquiry, Team Building, and Skill Training) were designed to enhance the positive unification of “engagement” variables. Appreciative inquiries attempt to “recognize the best in people and organization” (Martinetz, 2002) via a change-process of “define, discover, dream, design and deliver” (Mohr & Watkins, 2001).

Development of OD Intervention

The development of the OD design, process, and intervention activity was based upon an assessment of the organization status via “Market Landscape Analysis”, “SWOT” instrument analysis and a “Porter Five Force” analysis. The target organization is growing rapidly, and the executive is aware that above all success depends on human commitment to initiating the product and service excellency. Therefore, to overcome this “weakness”, “enhance its current strength” and “grasp the opportunity”, the “engagement” intervention is critically necessary, so that, all members could have opportunities to “enhance themselves” (skill training) in order to improve the business operation (AI Intervention), resulting in better business performance.
is designed around the conceptual framework so as to cultivate the value of members as associated with Individual Performance, Organization Engagement & Business Unit Performance. Refer to figure 3 for “OD Intervention Design”. The AI activity in this study is intended to allow and guide participants to envision their best in performing meaningful tasks.

**Pre-ODI and Post-ODI Quantitative Data**

The Post-ODI questionnaire was distributed and collected to obtain, explore and observe whether there are changes in participant responses. The “question”, “sampling population” and “mode of questionnaire distribution” remain unchanged. Yet, figure 4 compares the pre-ODI and post-ODI results in a Likert-Scale format: to see whether there is any significant deterioration or improvement that may be caused by an intervention activity.

With reference to figure 6; improvement from the intervention activity was made in all of the engagement variables and their sub-components. Yet, the obvious improvement lies with “Resource Availability”; where its average Likert-Scale grading increased by 0.62 from 3.34 to 3.96. In further detail, the “Reward & Package improved by 0.76 points followed by “Career Future” at 0.39. As a result, after intervention, the participants shifted their “neutral” perception (3.34) of “Resource Availability” positively (3.96) on the Likert-Scale. The second-best improvement was from “Working Environment” where there was an increase of 0.40 points from 3.56 to 3.96. Yet, within “Working Environment”, the “Co-Worker Variable” was the most effectively enhanced by the research intervention.

The post-ODI average score revealed that there was positive progress following the research activity. However, descriptive statistics of pre-ODI and post-ODI phases explain the allocation of data in greater detail.

<table>
<thead>
<tr>
<th>Job Meaningfulness</th>
<th>Pre-ODI</th>
<th>Post-ODI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Enrichment</td>
<td>3.85</td>
<td>3.96</td>
</tr>
<tr>
<td>Work-Role Fit</td>
<td>3.65</td>
<td>3.75</td>
</tr>
<tr>
<td>Amount of Work</td>
<td>3.99</td>
<td>4.04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Working Environment</th>
<th>Pre-ODI</th>
<th>Post-ODI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Condition</td>
<td>3.60</td>
<td>4.03</td>
</tr>
<tr>
<td>Supervisor Relation</td>
<td>3.68</td>
<td>3.85</td>
</tr>
<tr>
<td>Co-Worker Variable</td>
<td>3.42</td>
<td>4.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resource Availability</th>
<th>Pre-ODI</th>
<th>Post-ODI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Future</td>
<td>3.47</td>
<td>3.86</td>
</tr>
<tr>
<td>Reward &amp; Package</td>
<td>3.22</td>
<td>3.98</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Engagement</th>
<th>Pre-ODI</th>
<th>Post-ODI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of Engagement</td>
<td>4.23</td>
<td>4.39</td>
</tr>
</tbody>
</table>

Figure 4: Pre-ODI and Post-ODI results in a Likert-Scale Format (n=24)
Figure 4 elaborates on this, showing that there is a slightly positive change in the mean average “Job Meaningfulness”, “Resource Availability” and “Sense of Engagement”. The standard error and standard deviation figures reduced across all engagement variables, which indicates that respondents’ responses were more concentrated around the mean average. Nevertheless, the standard error of “Job Meaningfulness” significantly reduced from 1.71 during the pre-ODI phase to 0.79 during the post-ODI phase. This suggests that the intervention influenced the majority of participants, such that they shared similar viewpoint toward “Job-Meaningfulness” and its sub-components. In terms of data “Skewness”, “Working Environment” revealed an obvious change. During the pre-ODI phase, its “Skewness” level was at -0.33 (skewed to the left), while the post-ODI figure was at 0.72 or skewed toward the right-side of the graph. The skewness to the left occurred when the mean and median were both less than the mode.

**Hypothesis Testing - General Differences**

The general statistics helps us to answer the big question: whether the research activity has an overall impact on respondents’ perception and therefore the likelihood that the respondent will be engaged with the company? Table 2 illustrates the overall “Pair Differences” (all questions were tested statistically), while table 3 further demonstrates the “Pair Differences” by engagement variable. To test the level of statistical significance, hypothesis 1 was further elaborated, as follows:

\[ H_0: \text{There is no significant change in any of the engagement variables between the pre-ODI and post-ODI phases.} \]
\[ H_1: m_{post} = m_{pre} \]

**H_{a1}:** There is a significant change in at least one of the engagement variables between the pre-ODI and post-ODI phase. \[ H_{a1}: m_{post} > m_{pre} \]

Refering to Table 1, the p-value is 0.002 with a 95% confidence interval, which is less than 0.05 (p<0.05); therefore, we could conclude that there are significant differences in the respondents’ responses between the two periods of time.

Exploring further in detail and with reference to Table 2, we can see that “Job Meaningfulness”, “Working Environment”, “Resource Availability” and “Sense of Engagement” are revealed to have a p-value at 0.00 or less than 0.05 (p<0.05). Thus, it can be concluded that the null hypothesis should be rejected, and the alternative hypothesis accepted accordingly. Therefore, it is concluded that there are significant differences in each of the engagement variables between the pre-ODI and post-ODI phase.

**Table 1: Paired Differences Summary of Engagement Variables**

<table>
<thead>
<tr>
<th></th>
<th>Paired Differences</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sum Pos All - Sum Pre All</td>
<td>15.792</td>
<td>3.54</td>
<td>23</td>
<td>0.002</td>
</tr>
<tr>
<td><strong>Std. Deviation</strong></td>
<td></td>
<td>21.861</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
However, general statistics are not able to specify specific effects from an intervention action. Therefore, the following section considers each variable further, considering each hypothesis in the sub-component dimension.

Hypothesis Testing - Job Meaningfulness

“Job Meaningfulness” focuses on whether the quality and quantity of work has motivated individuals for career growth. The term “Meaningfulness” is described as the “value of a piece of work, goal or purpose, judged in relation to an individual’s own ideals or standards” (Hackman & Oldham, 1976). Where, the lack of “Meaning” felt by one individual can lead to “alienation” or disengagement from work (Aktouf, 1992), a “Meaningful” work role enhances personal growth and work motivation (Spreitzer at al., 1997).

**Job Enrichment**

Where hypothesis number 2 is expressed as follows:

\[ H_{2_0} = \text{There are no significant impacts on participant perception towards job-enrichment.} \]

\[ H_{2_a} = \text{There are significant impacts on participant perception towards job-enrichment.} \]

“Job enrichment” showed significant differences between the two sets of data with a 95% confidence interval, where the mean average was 1.875, and a p-value of 0.001 which is lower than 0.05 (p<0.05). Therefore, \( H_{2_0} \) was rejected and \( H_{2_a} \) was accepted accordingly.

### Table 2: Paired Differences by Engagement Variable

<table>
<thead>
<tr>
<th>Paired Differences - 95% Confidence Interval</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre &amp; Post - Job Meaningfulness</td>
<td>24</td>
<td>6.04</td>
<td>4.258</td>
<td>0.869</td>
<td>6.95</td>
<td>23</td>
<td>0.00</td>
</tr>
<tr>
<td>Pre &amp; Post - Working Environment</td>
<td>24</td>
<td>6.50</td>
<td>6.318</td>
<td>1.29</td>
<td>5.04</td>
<td>23</td>
<td>0.00</td>
</tr>
<tr>
<td>Pre &amp; Post - Resource Availability</td>
<td>24</td>
<td>8.50</td>
<td>7.102</td>
<td>1.45</td>
<td>5.96</td>
<td>23</td>
<td>0.00</td>
</tr>
<tr>
<td>Pre &amp; Post - Sense of Engagement</td>
<td>24</td>
<td>2.54</td>
<td>1.888</td>
<td>0.385</td>
<td>6.60</td>
<td>23</td>
<td>0.00</td>
</tr>
</tbody>
</table>

### Table 3: Pre-ODI and post-ODI Paired Sample Statistics on Job Enrichment

<table>
<thead>
<tr>
<th>Variable</th>
<th>Paired Differences</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Sum Post JobEnrich - Sum Pre JobEnrich</td>
<td>1.875</td>
<td>2.271</td>
</tr>
</tbody>
</table>
Table 3: Pre-ODI and post-ODI Paired Sample Statistics on Job Enrichment (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 6: Sum_Pos_JobEnrich - Sum_Pre_JobEnrich</td>
<td>4.045</td>
<td>23</td>
<td>0.001</td>
</tr>
</tbody>
</table>

It is concluded that there are significant differences in “Job-Enrichment” during the pre-ODI and post-ODI phases. Participants perceived their job as more meaningful, following ODI. During the pre-ODI phase, 75% of participants “agreed and mostly agreed” that their job was “challenging” compared to a post-ODI result of 79.20%. However, 83.30% (+16.60% from the pre-ODI value) of participants agreed that they could feel a sense of accomplishment on daily basis.

Amount of Work

The “Amount of Work” reflects on the appropriateness of the work-load; this can enhance or reduce participant perception towards job-motivation. Five questions were asked, giving the following results:

\[ H_{0}^{3} = \text{There are no significant impacts on participant perception towards the amount of work.} \]
\[ H_{0}^{3}: m_{\text{post}} = m_{\text{pre}} \]

\[ H_{a}^{3} = \text{There are significant impacts on participant perception towards the amount of work.} \]
\[ H_{a}^{3}: m_{\text{post}} > m_{\text{pre}} \]

Table 4 illustrates that the p-value is at 0.00, which is less than 0.05 (p<0.05); therefore, null hypothesis number 3\(_{0}\) is rejected and alternative hypothesis number 3\(_{a}\) is accepted accordingly. It is concluded that “there are significant impacts on participant perception towards the amount of work”.

Table 4: Pre-ODI and Post-ODI Paired Sample Statistics on Amount of Work

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error of Mean</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 8: Sum_Pos_AmountWork - Sum_Pre_AmountWork</td>
<td>2.042</td>
<td>2.116</td>
<td>0.448</td>
<td>1.114</td>
<td>2.969</td>
</tr>
</tbody>
</table>

Table 4: Pre-ODI and Post-ODI Paired Sample Statistics on Amount of Work (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 8: Sum_Pos_AmountWork - Sum_Pre_AmountWork</td>
<td>4.554</td>
<td>23</td>
<td>0</td>
</tr>
</tbody>
</table>
Work Role Fit

The “Work Role Fit” is described as “tasks that are associated with an individual’s value” (Waterman, 1993); such tasks require an individual’s strength or capability “contributing to experiences of psychological meaningfulness and work engagement” (May et al, 2004).

\[ H_4_0 = \text{There are no significant impacts on participant’s perception towards their work role fit.} \]
\[ H_4_a = \text{There are significant impacts on participant’s perception towards their work role fit.} \]

Differences between pre-ODI and post-ODI values were found to exist at the 95% confidence interval, with a mean of 2.125, and standard deviation of 1.963. Lower and upper values were 1.658 different from one another but were well above 0. The p-value was 0.01 which is <0.05; therefore, the null hypothesis is rejected, and the alternative hypothesis is accepted accordingly. It is concluded that “there are significant impacts on participant’s perceptions towards their work-role-fit”.

Hypothesis Testing - Working Environment

Miles (2001) concurred that “Environment Factors” are major factors used to determine the level of employee engagement. While, Kahn (1990) has also asserted that an “environment” which consisted of “helpful” and “trusting” people along with supportive management, promotes psychological safety.

Working conditions

“Work-Condition” focuses on participants’ viewpoints towards how the organization enriches employees’ working-

Table 5: Pre-ODI and Post-ODI Paired Sample Statistics on Work Role Fit

<table>
<thead>
<tr>
<th>Variable</th>
<th>Paired Differences</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Sum_Pos_RoleFit - Sum_Pre_RoleFit</td>
<td>2.125</td>
<td>1.963</td>
</tr>
</tbody>
</table>

Table 5: Pre-ODI and Post-ODI Paired Sample Statistics on Work Role Fit (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>(t)</th>
<th>df</th>
<th>Sg. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum_Pos_RoleFit - Sum_Pre_RoleFit</td>
<td>5.303</td>
<td>23</td>
<td>0</td>
</tr>
</tbody>
</table>
experience. In this aspect, the condition of the workplace influences how much employees want to “keep working in the organization”. Measurements of “Work Condition” during the pre-ODI and post-ODI phase were tested following hypothesis number 5, elaborated as follows:

\[ H_{50} \]: There are no significant differences in working conditions between the pre-ODI and post-ODI phases. \[ H_{5a} \]: There are significant differences in working conditions between the pre-ODI and post-ODI phases.

Table 6 shows a t-value of 2.901, giving a two tailed p-value of 0.008 (p<0.05), showing a significant difference at the 95% confidence interval. Therefore, the null-hypothesis is rejected and alternative hypothesis is accepted accordingly. It is concluded that “there are significant differences in “working conditions” when comparing the pre-ODI and post-ODI phases”.

The mean average increased by 12% following the intervention activity, with a mean gain of 2.59. In further detail, the pre-ODI result illustrates that 62.5% of respondents had a “neutral” response regarding the suggestion to “proudly recommend the company to his/her close friends”. Surprisingly, 12.5% decided not to “suggest a company to work for”. As a result, 75% of the sample population would “proudly recommend” the company to their close-friend.

**Co-Worker Relations**

Individuals with supportive interpersonal interactions with their peers have greater meaningfulness in their work role (May, et al., 2004). The quality of relations in work also “hads impacts on employees’ shared beliefs regarding whether mistakes would be held against them” (Edmonson, 1999).

\[ H_{60} \]: There are no significant differences in Co-Worker Relations between pre-ODI and post-ODI phases. \[ H_{6a} \]: There are significant differences in Co-Worker Relations between pre-ODI and post-ODI phases.

Table 6: Pre-ODI and Post-ODI Paired Statistics on Working Condition

<table>
<thead>
<tr>
<th>Variable</th>
<th>Paired Differences</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Pair 1: Sum_Pos_WorkCon - Sum_Pre_WorkCon</td>
<td>2.583</td>
<td>4.363</td>
</tr>
</tbody>
</table>

Table 6: Pre-ODI and Post-ODI Paired Statistics on Working Condition (continued)

<table>
<thead>
<tr>
<th>Variable</th>
<th>t</th>
<th>df</th>
<th>Sig. (2 tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1: Sum_Pos_WorkCon - Sum_Pre_WorkCon</td>
<td>2.901</td>
<td>23</td>
<td>0.008</td>
</tr>
</tbody>
</table>
Table 7 shows the mean average of 2.167, where there is a mean gain of 2.16 or 12.39% improvement. The 95% confidence interval is crossing zero with a lower limit at -0.046; therefore, the t-test does not show a significant difference at p<0.05. Therefore, it is concluded that the null hypothesis is accepted, and the alternative hypothesis is rejected accordingly. The results have proved that “there is no significant difference in Co-Worker Relations between the pre-ODI and post-ODI phase”.

### Supervisor Relations

Employees’ relations with their “immediate” managers have an impact on their individual perception towards the safety of the “Work Environment”. Since, supportive, helpful and flexible relations “should foster the perception of safety” (Edmonson, 1999), leading to “Creativity” and “Engagement” (Oldham & Cummings, 1996).

### Table 7: Pre-ODI and Post-ODI Paired Sample Statistics on Supervisor Relations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>H7_0: m_post = m_pre</td>
<td>1.333</td>
<td>4.198</td>
<td>0.857</td>
<td>-0.439</td>
<td>3.106</td>
</tr>
</tbody>
</table>

Referring to Table 8, the mean average is 1.333, showing a mean gain of 1.30 or 5.77% improvement. The 95% confidence interval level crosses zero, with a lower limit at -0.439; therefore, the t-test does not indicate a significant difference at p<0.05. Thus, with a p-value of 0.1333; H7_0 is accepted and H7_a is rejected accordingly. It is concluded that “there are no significant differences in Supervisor Relations comparing the pre-ODI and post-ODI phases”.

### Table 7: Pre-ODI and Post-ODI Paired Sample Statistics on Co-Worker Relations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>H7_0: m_post = m_pre</td>
<td>2.167</td>
<td>5.239</td>
<td>1.069</td>
<td>-0.046</td>
<td>4.379</td>
</tr>
</tbody>
</table>

### Table 8: Pre-ODI and Post-ODI Paired Sample Statistics on Supervisor Relations
Table 8: Pre-ODI and Post-ODI Paired Sample Statistics on Supervisor Relations (continued)

In detail, 83% of respondents have confirmed that a “supervisor’s capability and management skills” do impact individuals’ performance. Nevertheless, “supervisors” also have influencing power on employees’ general perception towards job related activity. Unexpectedly, only 46% of participants “strongly agree” or “agree” that they are currently “satisfied with their supervisor”.

Resource Availability

Individuals tend to supply their own “physical, emotional and cognitive” resources in accordance with their work-role (May, Gilson, Harter, 2004). May & Schwoerer (1994) suggested that most jobs required some form of individual investment. Therefore, employees expected a reward & return, which would reflect on how the company values the individuals.

Career Development

When the organization increases career-development, it is likely that it will contribute to increasing the organizational commitment of individual employees. “Commitment became higher when learning opportunities were provided” (Bambacas, 2010).

H80: There are no significant impacts on employee perceptions towards Career Development, between the pre-ODI and post-ODI phase. H80: m\text{post} = m\text{pre}

H8a: There are significant impacts on employee perceptions towards Career Development, between the pre-ODI and post-ODI phases. H8a: m\text{post} > m\text{pre}

Table 9 shows the results of the paired sample statistics on “Career Future”; the mean average is at 3.167, where there is a mean gain of 3.17 or 11.42% improvement. The confidence interval lower bound is 1.145, and upper bound 5.189, with a p-value of 0.004 (p-value<0.05); therefore, it is concluded that the null hypothesis is rejected, and the alternative hypothesis is accepted accordingly. In this regard, statistically, “there is a significant impact on employees’ perceptions towards Career Development” when comparing the pre-ODI and post-ODI data.

Table 9: Pre-ODI and Post-ODI Paired Sample Statistics on Career Future

<table>
<thead>
<tr>
<th>Variable</th>
<th>Paired Differences</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Pair 4</td>
<td>3.167</td>
<td>4.718</td>
</tr>
</tbody>
</table>
Reward

Grover & Crooker’s (1995) study suggested that the level of benefits offered by an organization relates to employees’ perception of the employer’s “greater concern”, “care” and “fairness” for employees. To test the effectiveness of intervention tools, the hypothesis was formed and expressed as follows:

\[ H_0 : m_{post} = m_{pre} \]
\[ H_a : m_{post} > m_{pre} \]

With a t-value of 6.592 and p-value of 0.001 (p-value<0.05), the null hypothesis is rejected and alternative hypothesis is accepted accordingly. It is concluded that “there are significant impacts on employees’ perceptions towards the received rewards” when comparing data from the pre-ODI and post-ODI phases.

Table 10: Pre-ODI and Post-ODI Paired Sample Statistics on Perceived Benefits

<table>
<thead>
<tr>
<th>Variable</th>
<th>Paired Differences</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Pair 5</td>
<td>5.331</td>
<td>3.964</td>
</tr>
</tbody>
</table>

Table 10: Pre-ODI and Post-ODI Paired Sample Statistics on Perceived Benefits (continued)
Furthermore, with reference to the questionnaire statistics, 83.3% felt that the received package is no different to other companies within a similar industry; or 50% better when comparing with the pre-ODI result. Yet, two factors that have no relevant change are the “company compensation package is aligned with industrial standards” and “I intended to stay committed if the given benefit is sound”. This set of data has elaborated that “employee benefit” does not necessarily need to be delivered in the format of currency, but rather, in terms of recognition, a better corporate environment and career enhancement.

SUMMARY AND CONCLUSION

Various academic papers have attempted to verify, validate and form universal “engagement variables” that would be a best fit with most scenarios. However, May, Gilson & Harter (2004); Saks (2006) and Zweifel (2009) synchronized the concept of “human-behavior” introduced by Kahn (1990) with modern studies of “Organization”. Through their concept “engagement” terms play a significant role in reflecting the level and importance of employee engagement. Basically, if all “engagement-variables” are enhanced and satisfied, employees are likely to be more engaged. Due to this aspect, improvement in the quality of variables will result in a positive trend of employee performance.

Even when engagement variables (drivers) are not statistically significant, the aggregation of all drivers in concert with one another, generates an overall positive result. For example, if explored at the sub-component level, “work condition”, “co-worker relations”, and “supervisor relations” have no significant differences in the pre-ODI and post-ODI phases in this study. However, from a broader perspective, the engagement level was positively enhanced via the intervention activities.

IMPLICATION TO PROFESSIONAL PRACTICE

This study adds to the academic knowledge by applying an action-research study to improve the level of employee engagement and indirectly increase a firm’s performance. Any business that is highly dependable on “people” should not overlook the “human factor”, since we are in a business era where process efficiency alone cannot guarantee a successful outcome. With the implementation of “personnel engagement”, a firm can enhance productivity, innovation, and acquire the ability to resolve internal conflicts and achieve goals. The findings of this research could help academicians & professionals to be more aware of best-practices and the short-fall of each intervention in relation to its engagement variable. Furthermore, a “sense of engagement” is not an individual issue but is a concern at the organizational level. Therefore, for anyone to be engaged, the organization should design a corporate culture and social environment to promote the practice of being engaged. For example; the organization structure should be setup according to the business operation. The business processes should be flexible enough so that they can efficiently serve different requirements.
Strengthening Employee's Engagement in e-Commerce Business Department through an ODI Approach

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