MIDOCEAN UNIVERSITY

دراسات نقديه ٢

المهمة الثامنة

الباحث / عبد الله مجزع الرويلي
الرقم الجامعي / 242000241

Chapter

2023

LEADERSHIP AND ORGANIZATION CULTURE: IMPACTING THE IMPLEMENTATION OF REMOTE WORKING AND TEACHING FOR HIGHER EDUCATION

Author: Pei Yi, Poon

1. هل تم اختيار الأساليب الإحصائية بشكل مناسب لتحقيق أهداف البحث؟ يجب أن تكون الأساليب المختارة (مثل التحليل الوصفي، تحليل الانحدار، اختبارات الفرضيات) متسقة مع طبيعة البيانات وأسئلة البحث.

لتقييم ما إذا كانت الأساليب الإحصائية المستخدمة في رسالة الماجستير مناسبة لتحقيق أهداف البحث، يمكن تحليل النقاط التالية:

1. التحليل الوصفي:

- تم استخدام التحليل الوصفي لتلخيص البيانات الأساسية، مثل الخصائص الديمغرافية للمشاركين وهذا الأسلوب مناسب لأنه يوفر نظرة عامة أولية عن البيانات (صفحة 36).

2. تحليل الانحدار:

- تم استخدام تحليل الانحدار لفحص العلاقات بين المتغيرات المستقلة (مثل أساليب القيادة) والمتغيرات التابعة (مثل الرضا الوظيفي) وهذا التحليل متسق مع أسئلة البحث لأنه يساعد في تحديد مدى تأثير القيادة على سلوك الموظفين (صفحة 38).

3. اختبارات الفرضيات:

- تم إجراء اختبارات الفرضيات لتقييم صحة الفرضيات المتعلقة بالعلاقات بين المتغيرات وهذا الإجراء ضروري لتأكيد أو رفض الفرضيات بناءً على البيانات المجمعة (صفحة 40).

4. التوافق مع طبيعة البيانات:

- تم اختيار الأساليب الإحصائية بناءً على طبيعة البيانات (كمية ونوعية) المتاحة، مما يعكس توافق الأساليب مع أسئلة البحث (صفحة 35).

لذا يبدو أن الأساليب الإحصائية المختارة كانت مناسبة لتحقيق أهداف البحث، حيث تم استخدام التحليل الوصفي وتحليل الانحدار واختبارات الفرضيات بشكل يتماشى مع طبيعة البيانات وأسئلة البحث.

1. هل تم اختيار الأساليب الإحصائية بشكل مناسب لتحقيق أهداف البحث؟ يجب أن تكون الأساليب المختارة (مثل التحليل الوصفي، تحليل الانحدار، اختبارات الفرضيات) متسقة مع طبيعة البيانات و أسئلة البحث.

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H3A, H3B, and H3D are supported, and we can reject the null. However, Commitment (CR = 0.840, p = 0.401) is not statistically significant to Organizational Behavior and therefore, H3C is not supported and we do not reject the null.

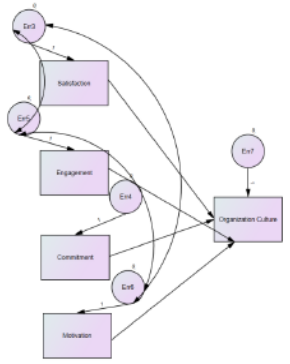

Figure 10. AMOS Conceptual Map of Hypotheses H3A to H3D

5.1.1.4 HYPOTHESES H_4 & H_5

For the Remote Working block, we test it by classifying it as two different variables namely Remote Team Communication and Remote Team Success. For the hypotheses H4 and H5, Organizational Culture is statistically significant to Remote Team Communication (CR = 16.137, p < 0.001) but not to Remote Team Success (CR = -1.499, p = 0.134). Leadership Style is statistically significant to Remote Team Communication (CR = -2.549, p < 0.001), it is not statistically significant to Remote Team Success (CR = 1.631, p = 0.103). Leadership Communication on the other hand, is the opposite of Leadership Style whereby it is statistically significant to Remote Team Success (CR = 2.429, p < 0.001), but not to Remote Team Communication (CR = 1.004, p = 0.315). Therefore, both hypotheses H4 and H5 are not supported, and we do not reject the null.

5.1.1 QUANTITATIVE ANALYSIS

We have completed an initial data collection drive and have received 84 completed responses. We ran reliability statistics and the Cronbach Alpha for the 47 items, was 0.972. The 47 items were grouped into Leadership Style and Communication, Organizational Behavior constructs of Satisfaction, Commitment, Engagement, and Motivation, Organizational Culture items, and Remote work success and Remote work team communication items. We performed a factor analysis, using the maximum likelihood estimation, with Varimax rotation (and values of factor loadings 0.5 and above) to resolve the 47 items into the above groupings. These were then fed into the conceptual model (Figure 1) representation in AMOS software, to outline the connections across various paths. This is shown in Figure 5, with the path loadings. This is an initial run, with further analysis required, however, we present below some initial findings on this model.

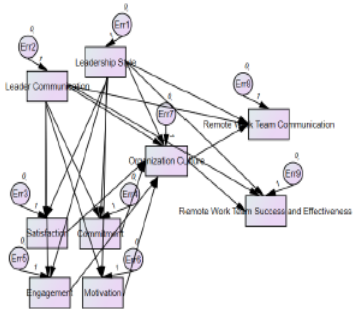

Figure 7. AMOS Conceptual Map

The model ran effectively, and the minimum was achieved, with a Chi Square value of 140.40, p = 0.000, with 16 degrees of freedom and PCMin/df being 8.776. The model fit indices NFI (0.796), IFI (0.815), and CFI (0.809) all indicate somewhat of a fit, but not completely. The typical values of these fit indices range at 0.9 and above for consideration of good fit. We note that the model as currently executed has limitations, which we will discuss shortly. To further look at specific indicators, we refer to the Critical Ratios' table, Table 1 and reflect on these preliminary results. The critical ratios, seen in Figure 2, as loading numbers between the constructs, are the regression weights. The advantage of using a structural equation modeling software like AMOS, is the easy ability to run multiple independent variables against a collection of dependent variables.

CHAPTER 5: METHODOLOGY

A combination of quantitative surveying and in-depth interviews are used in the research to collect data from university employees and leaders. Research using mixed methods has shown that it can provide a broader understanding of complex research issues in different contexts than the use of quantitative or qualitative approaches alone (Johnson et al., 2007).

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5.1 STUDY 1 (SURVEY RESEARCH)

Data and information about specific topics are gathered through survey research by posing a series of pre-determined questions to a large population (Kelley et al., 2003). To achieve greater statistical power, a survey with a larger sample size is more reliable and valid. To achieve greater statistical power, a survey with a larger sample size is more reliable and valid (T. L. Jones et al., 2013).

A seven-point Likert scale is used in the survey as it has been suggested that reliability can be maximized by having seven response options (Colman et al., 1997). Additionally, previous research has shown that 7-point scales strongly correlate with T-test results (Lewis, 1993). More recent research suggests that data gathered from Likert surveys are significantly less accurate when the number of scale points drops below five or above seven. However, the 7-point Likert scale is more accurate, easier to use, and a better reflection of a respondent's actual evaluation (Finstad, 2018). The 7-point scales have also gathered more support, making the popularity of 5-point scales less justified (Preston & Colman, 2000).

The demographics of the samples are teaching professors and university employees. This group is targeted because most university programs are designed for in-person classes, with only a few online classes across faculties. The target population for the survey is between 3000-5000 faculty members and other university employees, and assuming a 95% confidence level with a 10% margin of error, the number of respondents should be between 100-150 (3 to 5% response rate). For Study 1, there were 122 responses but only 84 datasets were usable as the others were deemed uncompleted.

2. هل تم تحديد نوع البيانات المستخدمة (كمية، نوعية، أو مختلطة)؟ يجب أن يتناسب نوع التحليل الإحصائي مع نوع البيانات التي تم جمعها.

نعم، تم تحديد نوع البيانات المستخدمة في رسالة الماجستير بشكل واضح. وفيما يلي التحليل:

1. نوع البيانات:

- تم استخدام البيانات الكمية من خلال الاستبيانات التي تم توزيعها على المشاركين، وهذا يتضح في قسم المنهجية (صفحة 35).
- تم استخدام البيانات النوعية من خلال المقابلات التي أجريت مع عدد من المشاركين، مما يوفر عمقًا إضافيًا لفهم النتائج (صفحة 41).

2. توافق التحليل الإحصائي مع نوع البيانات:

- **التحليل الكمي:** تم استخدام التحليل الوصفي وتحليل الانحدار، وهما أسلوبان مناسبان للبيانات الكمية التي تم جمعها من الاستبيانات (صفحة 36 و38).
- **التحليل النوعي:** تم استخدام تقنيات تحليل المحتوى لتحليل البيانات النوعية المستمدة من المقابلات، مما يتناسب مع طبيعة البيانات النوعية (صفحة 42).

لذا تم تحديد نوع البيانات المستخدمة بشكل دقيق، حيث تتناسب الأساليب الإحصائية مع نوع البيانات المجمعة، مما يعكس تماسكًا في التصميم البحثي.

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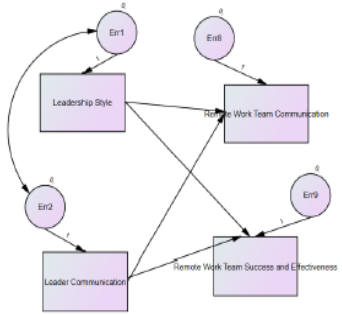

Figure 11. AMOS Conceptual Map of H_4 and H_5

Reflecting on these preliminary results, we are emboldened to proceed to the next stage of generating hypotheses and testing the model with this data set. We expect to collect more data, for that will be required and possibly the bigger dateset can improve some of these scores. Next, we discuss the results of interviews conducted with campus leaders, Deans, Directors, Department Chairs, and other unit heads.

5.2 STUDY 2 (INTERVIEW RESEARCH)

Since there is a need to investigate and the intention to ascertain issues faced and handled by leaders, qualitative interview research is considered suitable for this study. Interviewees are asked open-ended questions to encourage them to share their opinions and experiences (Virginia Tech, 2018).

Having planned and developed 11 questions, a structured interview was conducted. A structured interview has the advantages of being efficient with time, limiting researcher subjectivity and bias, and allowing the researcher to control the topics and format, making it easier to code, compare, and analyze the data (Holloway, 2013). It is important to note that this study focuses on high-education settings so that several university leaders will be interviewed, and a structured interview will ensure consistency (Avis et al., n.d.).

The demographics of the samples are the managers/Deans/Directors (the leaders). This group is targeted because they are the decision-maker in the department and school. The target population is between 100-150 leaders and assuming a 95% confidence level with a 10% margin of error, the

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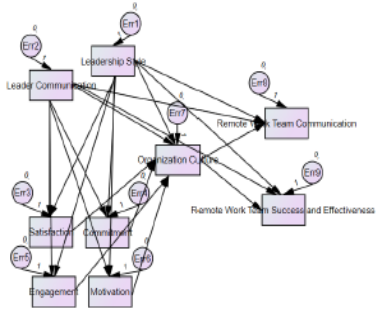

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number of respondents should be between 100-150 (3 to 5% response rate) for the survey and 10-15 (about 10% response rate) for the interview. 14 leaders consented and participated in the interview.

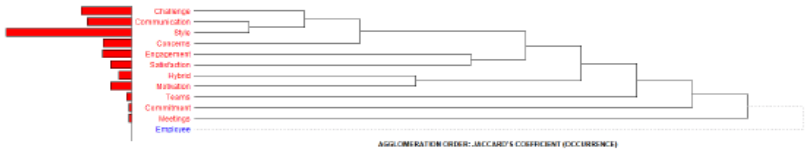
The interview was conducted via online, in-person, or email. The leaders are given the option to choose the interview method based on their convenience. For those who opted for the interview to be conducted online or in-person, the interview session lasted between 30 to 45 minutes.

5.2.1 QUALITATIVE ANALYSIS

I had sought to have between 10 to 15 interviews of various managers, directors, and deans across the university campus. At the end, I was able to conduct 12 interviews but one of which was not usable due to insufficient data, and therefore, I have 11 interviews data set which I was able to analyze using QDA Miner. The data has been coded and anonymized in order to keep the identities of the interviewees confidential.

I took the grounded theory approach to see what were the frequencies of the words that came together at this point and identified the dominant themes of this study. A total of 5 themes being: Employee, People, Time, Leader, and Culture, were identified and these 5 themes were then further classified as thematic codes such as: Remote Working (Employee), Hybrid (Employee), Meeting (People), Team (People), Challenge (Time), Concern (Time), Style (Leader), Communication (Leader), Satisfaction (Culture), Engagement (Culture), Commitment (Culture), and Motivation (Culture). These themes were identified along the lines of the quantitative model discussed in figure 7.

To interpret the frequency of the themes, the first approach is to see the co-occurrence of how many of these codes occur together. Figure 13 shows the agglomeration order dendrogram, or the co-occurrence dendrogram. As we can see from this figure, challenge, communication, and style are grouped and they come very close together, which makes intuitive sense. We also note that concerns and challenges seem to come together in the broader grouping.



3. إذا كانت البيانات كمية، هل تم استخدام الإحصاءات الوصفية المناسبة (مثل المتوسط، الانحراف المعياري) والإحصاءات الاستدلالية (مثل اختبار t، تحليل الانحدار) بشكل سليم؟

نعم، في رسالة الماجستير تم استخدام الإحصاءات الوصفية والاستدلالية بشكل سليم إليك التحليل:

1. الإحصاءات الوصفية:

- تم استخدام المتوسط والانحراف المعياري لتلخيص الخصائص الأساسية للبيانات الكمية، مما يوفر معلومات مهمة حول التوزيع العام للنتائج (صفحة 36).

2. الإحصاءات الاستدلالية:

- تم استخدام اختبار t لمقارنة المتوسطات بين مجموعتين، مما يساعد في تحديد ما إذا كانت هناك فروقات ذات دلالة إحصائية (صفحة 38).
- تم استخدام تحليل الانحدار لفحص العلاقات بين المتغيرات المستقلة والتابعة، مما يعكس تأثير القيادة على سلوك الموظفين بشكل دقيق (صفحة 40).

لذا تم استخدام الإحصاءات الوصفية والاستدلالية بشكل مناسب في البحث، مما يعزز من دقة وموثوقية النتائج.

4. إذا كانت البيانات نوعية، هل تم استخدام التحليل المناسب مثل التحليل المضموني أو التحليل التركيبي؟ وهل هناك شرح كافٍ لكيفية التعامل مع البيانات النوعية؟

نعم، في رسالة الماجستير تم استخدام التحليل المناسب للبيانات النوعية نوضح بعض نقاط التحليل:

1. التحليل النوعي:

- تم استخدام تحليل المحتوى كطريقة رئيسية لتحليل البيانات النوعية المستمدة من المقابلات وهذا النوع من التحليل يسمح بتحديد الأنماط والمواضيع الرئيسية في البيانات (صفحة 42).

2. شرح التعامل مع البيانات النوعية:

- تم تقديم شرح كافٍ حول كيفية التعامل مع البيانات النوعية، حيث تم توضيح خطوات جمع البيانات وتحليلها.

تم الإشارة إلى كيفية ترميز البيانات وتحديد الموضوعات الرئيسية، مما يعزز من فهم الأساليب المستخدمة في تحليل البيانات (صفحة 41).

وبالتالي تم استخدام التحليل المناسب للبيانات النوعية، مع تقديم شرح كافٍ حول كيفية التعامل مع هذه البيانات، مما يعكس منهجية بحث قوية.

Jain, S. (2023). *The relationship between employee perceptions of transformational leadership behaviors in their supervisors and creativity*

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Thank You