 doi:10.20944/preprints202206.0297.v1

Article

Exploring International Faculty's Perspectives on Their Campus Life by PLS-SEM

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Abstract: Building sustainable campuses has become a priority for various higher education institutes (HEIs). Internalization is one of the important tasks in the progress. Therefore, attracting and maintaining international faculty has converted to action for various internationalized campuses. During the COVID-19 pandemic, it has impacted most of the citizens' life, while the international faculty members' life might be tight during this period. The purpose of this study is to explore the perspectives of international faculty members on their life in higher education institutes by using partial least square structural equation modeling (PLS-SEM). Using a self-compiled online survey, we invited 80 international faculty members of HEIs in Taiwan to investigate this issue. The survey covers career and professional status, teaching and research status, and demographics of the faculty. This study proposes a novel conceptual framework for addressing international faculty's campus life, the design will examine the relationships among working conditions, views of institutions, views of government's measures, and levels of satisfaction through PLS-SEM. The demographic profile of the participants revealed (a) most international faculty are employed full-time as lecturers or assistant professors in most public universities; (b) most international faculty members earned their first degree outside of Taiwan; however, 66% of them earned their post-doctoral degrees in Taiwan. The results of PLS-SEM suggest that the international faculty perspective of government is more directly related to their current work satisfaction and overall satisfaction. The designed model has shown work well to assess this issue. This can be extended to other higher education settings to tackle similar issues.

Keywords: internationalization; international faculty; higher education; job satisfaction; PLS-SEM

1. Introduction

In higher education settings, international mobility may refer to both the movement of students and faculty across countries. There are numerous studies addressed international student mobility in higher education settings, while the studies focused on international faculty mobility have shown still limited, inconsistent and incomplete [1]. One of major reasons is, there is no international database about international faculty trends available at the current stage [2]. Moreover, international faculty studies are mostly based on qualitative approaches in specific countries. International faculty recruitment has the potential to allow for a better understanding of its positive and negative consequences with profound data collection and deeply rethink about the competitive recruit and retain policy in the global context. Therefore, a novel approach to investigate this issue for sustainable higher education is needed.

Partial Least Square-Structural Equation Modeling (PLS-SEM) is an analytical approach to deal with composite-based and causal-predictive models, it has been proposed to tackle the structure issues in different disciplines. When we confronted new issues, PLS-SEM is well suited to exploratory research [3]. It has shown increasing number of higher education studies used PLS-SEM method for explanations and predictions [4]. For practical reasons, PLS-SEM can accept and handle small samples when the research subjects are

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limited [5]. Considered the constrained population of international faculty, the proposed study can focus on PLS-SEM to demonstrate that the data were transformed and the research hypotheses were verified.

International mobility involves leveraging the knowledge producing skills of select individuals in exchange for highly attractive living and working conditions. In general, academic mobility is not a singular or universal process but rather is multi-faceted and better understood when examined in light of particular circumstances [6]. Numerous universities are now seen to be central in the global competition for knowledge, innovation, and human capital, in this sense, effective recruit and retain international talents may become an important strategy for international campuses. While the situations are various by countries and areas, for example, developing and developed countries may confront different situations. The phenomena of brain drain, brain gain, or brain circulation have often guided inquiry into international academic mobility. Facing the pressure of international academic mobility, the Ministry of Education has initiated a project called Higher Education Sprout Project from 2018 to 2022. Under this program, universities can recruit the world's elite by offering annual salaries of up to NT$ 5 million (about US$167,000) [7], while the recruitment for outstanding international scholars is still limited.

The purpose of this research is to explore the working conditions and perspectives of international faculty in higher education by using innovative approaches. Taking Taiwan's higher education as an example, this study identifies currently working conditions of the international faculty, to determine the influential factors that might attract more international faculty members to Taiwan. Based on the proposed model, the study conducted the PLS-SEM to interpret the structural relationships. Specifically, there are three major purposes in this study: (a) To examine the problems that the current international faculty faced in higher education institutes through the survey, including career and professional situation, teaching and research situation; (b) To determine the international faculty's perspective on current working conditions, including institution view, government view, current work satisfaction and overall work satisfaction in order to know the relationship among these factors; (c) To develop attracting and retaining strategies for international faculty in Taiwan or new comers for Taiwan's HEIs.

Based on the research purposes, we address the following research questions:

a. What are the problems facing among the international faculty work at national and institutional levels?

b. What are the international faculty's perspectives on current working environment?

c. What are the relationships among perspectives of international faculty's institution view, government view, current work satisfaction and overall work satisfaction?

d. Which strategy can be used to ameliorate the working conditions for international faculty?

The rest parts of this paper are organized as follows: Frist, the literature review will address the notions of international faculty mobility, international faculty in Taiwan and related research approached in previous studies which can support this study. Second, the method section will display research framework, hypotheses, instrument, samples and statistical analysis. Third, the results section will demonstrate our descriptive statistics, measurement model and the testing of structural model. Fourth, the discussion will be presented. Finally, the conclusion will be drawn.

2. Literature Review

In this section, first, we will focus on the phenomenon of international faculty mobility and its meanings for international higher education. Second, the target higher education system and related internationalized policies will be addressed. Third, the related approaches have been used will be reviewed. Finally, we will address the job satisfaction and academic satisfaction as the main theme to develop the survey questionnaire.

2.1. International Faculty Mobility

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2.1.1. Internationalization as Main Driven Factor of International Faculty Mobility

One of the key issues in a situation of economic globalization is now become a pressure of enhancing internationalization in higher education [8,9]. Obviously, international student and faculty mobility have become the key international indicators. The internationalization of higher education has made the mobility of students and faculty as main recruiting and retaining strategies for academic reasons [10]. OECD claimed the importance of mobility stems from its contribution to the creation and diffusion of knowledge, similarly, the Global Education Monitoring Report investigated the shifting mobility in international higher education [11,12]. Moreover, Bhandari et al. reported that moving educational programs beyond student and faculty mobility can contribute to the flow of ideas and knowledge, improving practices, generating resources for countries receiving them, as well as attracting talents [12]. Within the academic mobility context, mass higher education has accelerated the process of transformation from higher education importers to exporters. This is due to higher education internationalization having directly impacted international faculty mobility. Conceptualized the internationalization in HEIs, Hudzik indicated that this phenomenon may include internationalized curriculum and hiring more international faculty members [13]. Numerous studies suggested that the internationalization should be taken into account as the main target and considered international faculty mobility in relation to the specific phenomenon of internationalization of higher education [14-16]. Internationalization has become a main driven factor that impacts the international faculty mobility.

2.1.2. Definitions of International Faculty

The defining international faculty is complicated and varied. After the establishment of modern nation states in the early nineteenth century, the term "international faculty" became widely used, and a profession of academia was created [17]. Mihut et al. pointed out that there is no generally agreed-upon answer to the question of what does it mean to be “international” and by challenges associated with the diversity of motives, lengths of stay, and modes of mobility among this population [18]. Intrinsically, most research on international faculty with border classification is by foreign-born (place of birth) or by non-citizens (citizenship) [19]. Altbach and Yudkevich defined international faculty as individuals who hold academic positions in countries in which they were not born or in which they did not complete their first post-secondary education [14]. As statistical research; for instance, the Quacquarelli Symonds (QS) World University Ranking methodology defined the international faculty as simply based on the proportion of faculty members that are international in order to weightings to build a composite indicator as QS scores [20]. It goes without saying that definitions of international faculty can have narrow definitions by different types of categories based on different countries and research purposes; however, many studies on international faculty are using nationality as the definition for the research, especially in Asian countries [17,21]. The literature review suggests that the international faculty members are classified according to their nationality.

2.1.3. International Faculty in Taiwan

Taiwan has established two forms of higher education: one is leading academics and the other towards occupational training. A total of 152 colleges and universities are currently operating in Taiwan’s HEIs, including 126 universities, 14 colleges, and 12 junior colleges [22]. Taiwan's internationalization policy could be viewed as focusing on the mobility of international students [23]. While how to recruit and retain international faculty has been persisted discussion and caught much more attention in higher education. According to MOE database, it revealed that the number of full-time foreign faculty members in higher education has limited increase from 2017 to 2020. The average of increasing international faculty growth is less than 1% in Taiwan. According to the structures of international faculty in higher education, there were 1,170 international faculty members in

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HEIs in 2021. By percentage of international faculty members, 52.56% of faculty members are employed by public HEIs, while 47.43% are employed by private HEIs [24].

To enhance the institutional internationalization, the government has initiated several measures in past decades. For example, Taiwan's government revised the University Law in order to strengthen a university's autonomy to develop academic exchanges and partnerships with foreign cultural and educational institutions in 1994 [25]. Since then, the White Paper on University Education, "Ten Educational Development Policies" has been initiated in 2001 and several universities have been referred to as active participants in internationalization activities [23,26].

The other influential factors considered in evaluating Taiwan's competitiveness include student mobility, rankings, and employment of international faculty members [27]. From that time forward, HEIs have been encouraged by the Ministry of Education to develop each institute's unique characteristics under a variety of incentive programs. In the 2000s, MOE implemented two major incentive projects to promote the diversification and classification of higher education [28]. The first major incentive project is the Top University Project, which aims to increase the quality of research and ensure the inclusion of top global universities from 2006 to 2015. The second one is the Higher Education Sprout Project, which is scheduled to take place between 2018 and 2022 for the purpose of promoting the development of diversified higher education [29]. Within this context, internationalization has become an influential indicator for evaluating university's performance. International faculty could play an important role in the process of institutional internationalization. The policy makers assumed that the expected progress could enhance higher education sustainable development.

2.2 Approaches for Realizing International Faculty

Based on previous studies, the research approaches for international faculty have been examined by empirical investigations for many years. For example, considered international faculty have individual experiences, Omiteru et al. based on the demographic information to measure their perceptions about administrators and respective communities [30]; Huang used the demographic profile of international faculty to analyze their personal, educational and professional characteristics in Japan [31]. Similarly, using the survey questions, Huang et al. seek to understand Japan's academic market to international faculty and institutional climate [32]. The number of international faculty is also considered one of the critical identify for promoting teaching variety and quality in previous studies [16,22]. The quantitative studies could have a deep analysis of the internationalization of the faculty studies along with the complex characteristics in the institutional levels. In the other direction, Munene adopted the embedded intergroup theory to pay attention to organizations consisting of members belongs [33]. Lawrence et al. based on organizational equilibrium theory to identify "pull" and "push" variables to know uncertain faculty toward to leave or stay their current institutes [34,35]. In addition, mixed methods were used to tackle this issue, for example, Huang conducted semi-structured interviews and surveys in order to collect quantitative data about the characteristics and motivations of foreign faculty members working in Japanese universities [9]. Kim et al. used the concept of the push and pull model to seek the mobility patterns of foreign-born faculty [34,36]. This format of study is adopted the push-pull model to analyze international mobility with qualitative data analysis [9,37].

2.3 Job satisfaction and academic satisfaction

Job satisfaction could be one of crucial indicators to realizing international faculty's campus life. For example, Hagedorn addressed international faculty perspectives on job satisfaction [38]; Mamiseishvili and Lee applied a theoretical model of faculty job satisfaction [39]; Nyquist et al. developed a model linking organizational, job-related, and individual factors to help evaluate faculty job satisfaction [40]. As Nyquist et al. noted, variables such as organization factors, job-related factors, and personal factors were viewed as

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outcomes of self-knowledge or social knowledge satisfaction [40]. In this sense, the self-knowledge satisfaction or social-knowledge satisfaction can be a trigger as meditation that could influence outcomes productively, retention satisfaction or intrinsic rewards. Academic satisfaction may refer to specific content in campus. In this sense, the questionnaire with satisfaction will include more details of the academic related activities. Based on previous studies on international faculty, this study will develop a structure relationship model to interpret international faculty's perspectives on satisfaction. We will consider general job satisfaction and academic satisfaction as an expected outcome in the research framework.

3. Method

This study employed quantitative approaches to explore international faculty's career, professional situation, and their perspectives on HEIs. Typically, structure equation modeling (SEM) was applied to analyze the data and verify the hypotheses about interactions between international faculty and colleagues, departmental climate, and recognitions. The two most prevalent SEM based analytical methods are CB-SEM (covariance-based SEM) and PLS-SEM (variance-based SEM) [41]. In this study, we select PLS-SEM as an approach to tackle this issue. First, we developed a self-designed questionnaire to collect data which related to international faculty's perspectives on their current working environment and their satisfaction. Second, in order to examine the causal relationships among international faculty perspectives, government perspectives, current work satisfaction, and overall work satisfaction, we proposed a PLS-SEM model with the hypotheses for testing. Finally, we verified the hypotheses with fitted indicators in PLS-SEM.

3.1. Research Framework and Hypotheses

We focus on satisfaction as a factor influencing the recruitment and retention of international faculty. A conceptual framework is developed in the study based on a literature review that included the related constructs of government, institution management, and job satisfaction. According to Huang, both the government as well as the institutions should develop more strategies and efforts to ensure that international faculty members are satisfied with their working environment [42]. Figure 1 demonstrates the conceptual framework of this study. The relationships with the related variables are displayed, namely (a) Institution View (IV), (b) Government View (GV), (c) Current Work Satisfaction (CWSat), and (d) Overall Satisfaction (OSat).

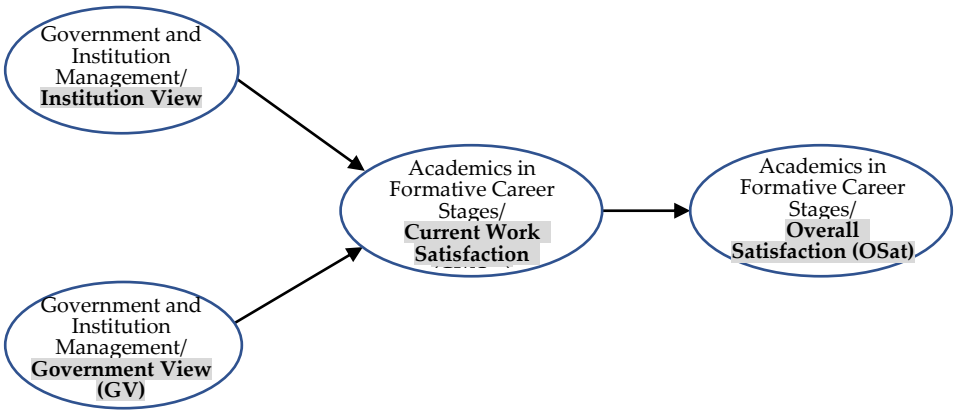

Figure 1. The conceptual framework of the study.

Figure 2 displays the testing model with hypotheses. The research hypotheses are listed as follows:

Hypothesis 1 (H1). *International faculty's institution view (IV) positively influences current work satisfaction (CWSat).*

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Hypothesis 2 (H2). *International faculty's government view (GV) positively influences current work satisfaction (CWSat).*

Hypothesis 3 (H3). *International faculty's current work satisfaction (CWSat) positively influences overall satisfaction (OSat).*

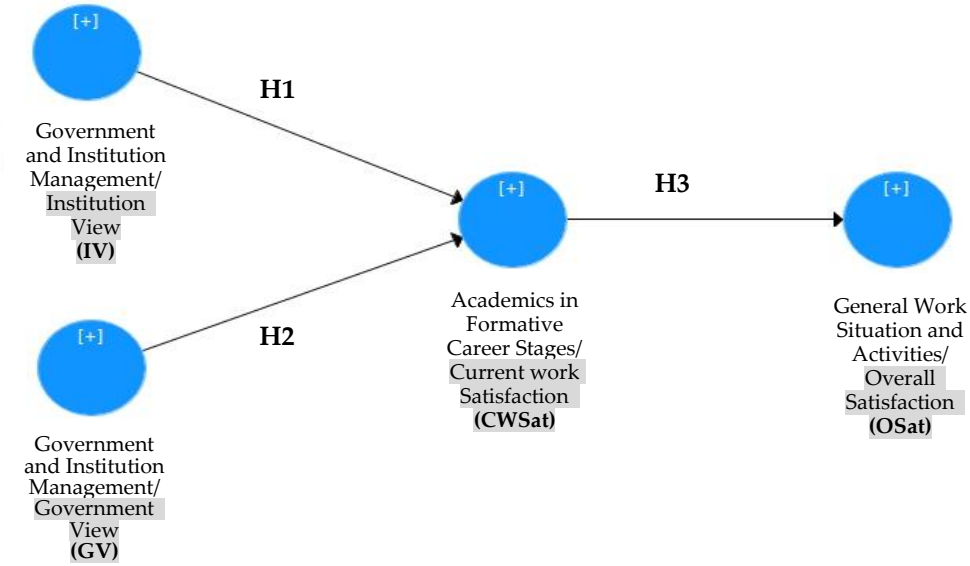

Figure 2. Hypotheses of the PLS-SEM model.

3.2 Instrument

Based on the research design and conceptual framework, the research questionnaire can be classified into five domains. The content of five domains are listed as follows.

a. Career and Professional Situation (Question number A1 to A14), including academic rank, academic discipline, employment, the reason to teach or do research, teaching and research;
b. Government and Institution Management (Question number B1 to B2), including government's policy for international faculty and how influential are you, personally, in helping to shape key academic policies in institutional level;
c. Academics in Formative Career Stages (Question number C1 to C8), including satisfied with salary, job security, career opportunities, institutional prestige, personal independence in teaching and research;
d. General Work Situation and Activities (Question number D1-D4), including satisfied with employment situation, work situation, overall professional environment, and current job;
e. Personal Background (Question number E1-E5), including gender, age, nationality, proficiency in Chinese, and institution type.

The proposed measurement constructs and their originated sources are displayed as Table 1. Totally, we will carry the 40 items as our survey instrument for this research topic.

Table 1. Conceptual constructs and variables.

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	Construct	Items	Variables	References
(A)	Career and Professional Situation	14	A1-14	[29,34, 40,41]
(B)	Government and Institution Management	B1 3 items B2 6 itmes	B1.1-1.3 B2.1-2.6	[40, 41]
(C)	Academics in Formative Career Stages	8	C1-C8	[41]
(D)	General Work Situation and Activities	4	D1-D4	[40]
(E)	Personal Background	5	E1-E5	[7, 30, 41]

3.3. Samples

The PLS-SEM can include as many indicators and/or path relationships as necessary to meet the sample size requirements for each sub-model. In order to evaluate hypothesized effects, researchers need carefully consider the most appropriate sampling strategy for their population as well as the sample size required for proper power calculations [4]. To determine the target international faculty in the case higher education system, first, this study uses the MOE database "A list of the academic expertise of university teachers in 2020" [43]. Second, based on the database, we sorted the names of potential international faculty members by the university. Finally, removing the names that are overlapped; for instance, one professor who works part-time at one university and full-time at another university.

Conducting PLS-SEM, previous studies have suggested some useful guidelines that should be followed. For example, to determine appropriate sample size, Kock and Hadaya recommended incorporating the model's background characteristics, the distributional properties of the data, the psychometric properties of the variables, and the degree of relationship between the variables [44]; Hair et al. proposed the minimum R-squared method for estimation of the minimum sample size. They noted that four criteria can be examined in a structural equation model to determine sample size [45]:

a. The significance level;
b. The statistical power;
c. The minimum coefficient of determination (R^2 values) used in the model;
d. The maximum number of arrows pointing at a latent variable.

Cohen argued that sample size requirements should base on three criteria: First, the minimum R^2 refers to the number of arrows pointing at a latent variable [46,47]. Second, the significance level is taken into account. Third, it needed to consider that the minimum R^2 for the model. To estimate the minimum sample size, the minimum R^2 in the model is commonly used. According to Hair et al., sample size recommendations for a power of 80% are given [48].

In the beginning, around 256 targeted international faculty members were sent the online questionnaires to collect data. Finally, the total number of data contains 89 people, but 9 of them are invalid or incomplete. Overall, 80 questionnaires appear to be valid. In this study, the maximum number of arrows pointing at a latent variable is 2 and the minimum R^2 in the model is 0.249 and 0.254, see Figure 3. Based on the suggestion of Marcoulides and Saunders, the sample size in typical marketing research would have a significant level of 5%, the statistical power of 80% and R^2 values of at least 0.25 [49]. Nevertheless, there is no clear literature shows the suggested sample size in educational research. Hair et al. suggested a minimum sample size is 52 to meet the significance level of 0.5 which has statistical power of 80% in the study [48]. Basically, the samples in this study fit the requirement for conducting PLS-SEM.

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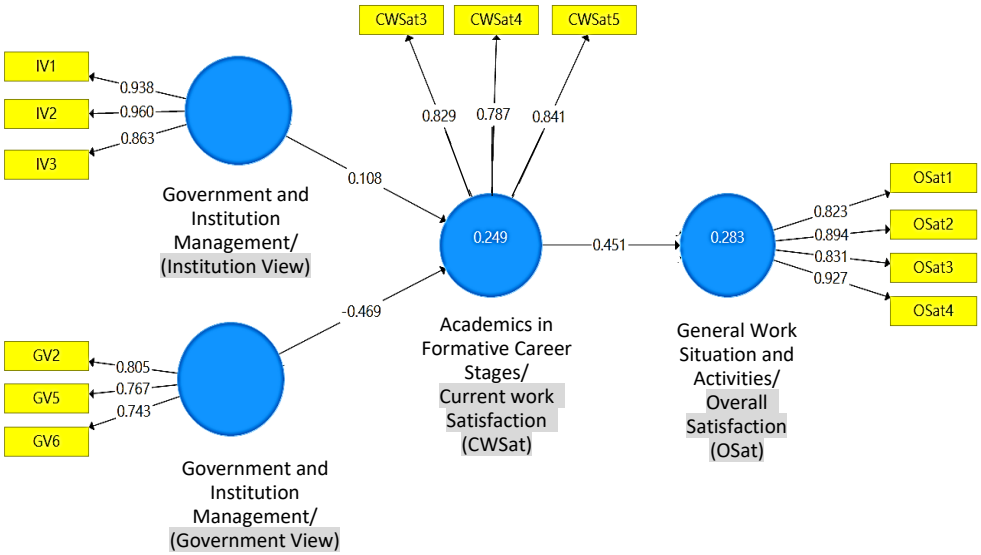

Figure 3. The minimum R-squared method for minimum sample size estimation in this study.

3.4. Statistical Analysis

According to the research questions and hypotheses, this study used SPSS (a statistical software program of IBM) to conduct descriptive statistical analyzes. A descriptive statistic is crucial in data cleaning process, particularly when it is quantitatively describing or summarizing the details in a set of information. The proposed model focuses on three constructs: "Government and Institution Management Perspectives", "Academics in Formative Career Stages about Current Work Satisfaction", "General Work Situation and Activists with Overall Satisfaction". The proposed model includes four domains of observed variables: institution view, government view, current work satisfaction and overall satisfaction. By running PLS-SEM, the data coding was screened to avoid missing values, suspicious response patterns, and outliers. The results of statistical analysis were reviewed and evaluated in terms of the significant relationships among items in the measurement model.

PLS-SEM can be viewed as a nonparametric algorithm computation to determinate latent variable scores [50]. Specifically, PLS-SEM uses composites as inputs and runs regressions with the aim of maximizing the explained variance of the endogenous constructs [50]; PLS-SEM can also be used to evaluate theory from a predictive perspective [4,51]. Several advantages accompany the composite-based nature of the PLS algorithm, including its ability to predict out of sample and to employ composite scores for additional analyses [4,51]. PLS-SEM is more flexible generally, as the models are less constrained in terms of identification. In this way, formative measurement models can be utilized more effectively, and convergence can be assured more easily [51]. PLS-SEM helps to avoid the problem of factor indeterminacy, which can occur when factor-based SEM provides determinate composite scores [3]. Sarstedt and Mooi pointed out that PLS-SEM does not assume residual distributions [52]. Therefore, researchers who employed the nonparametric bootstrapping procedure examine the confidence interval and test the parameter significance [51]. Based on the suggestions of previous studies, this study will employ the nonparametric bootstrapping procedure to examine the confidence interval and test the parameter significance.

4. Results

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4.1 Descriptive Statistics for the Targeted International Faculty

The questionnaire featured 80 participants from international faculty members. Their average age is 50.32 years old for males and 47.90 years old for females. The males are 73.8% and females are 26.3%. Based on the samples, the nationality is quite varied. Two main countries are Japan (25.0%) and the USA (17.5%). Except for American and Japanese, international faculty currently work at Taiwan including Indonesia (6.3%), Indian (5.0%), Germany (5.0%), Australia 5.0%), France (3.8%), Korea (2.5%), Spain (2.5%), and Vietnam (2.5%). The other international faculty may come from Austria, Brazil, UK, Bulgaria, Canada, Czech Republic, Greece, Iran, Israel, Philippines, Poland, Russia, and South Africa. Furthermore, the level of Chinese proficiency of the international faculty in the areas of speaking, aural comprehension, reading and writing is an average of 3.3 out of 5, indicating the international faculty consider their level of Chinese proficiency to be mostly poor.

Most of the international faculty earned their degrees abroad. However, 66% of international faculty have earned post-doctoral degrees in Taiwan. There are 55.2% of international faculty who have ever worked at a university or college outside Taiwan and another 36.3% of international faculty worked at a different university or college in Taiwan. In regards to their working conditions, most of international faculty are employed at research-oriented public universities (40%). They have a majority of lecturers or assistant professors (56.3%); Their academic discipline is mainly the humanities (37.5%); Physical science and mathematics are 11 %. There are 83.8% of the international faculty are hired as full-time in their current positions. Furthermore, international faculty members are recruited by current institutions by applying directly to the institution (69.8%). The main reason why international faculty work in Taiwan is mainly academic or professional purposes and fondness for Chinese life and culture.

Regarding the teaching conditions of international faculty, all of the content relating to teaching focuses on leading instruction, bachelor's degree courses or equivalent courses. English is the language that is primarily used in teaching. The research part of this survey indicates that international faculty are engaged in research in the current academic year or the previous academic year. A total of 51.3% of international faculty work independently without significant collaboration. Their main contributions are published articles, then writing academic books or book chapters and papers presented at academic conferences. A relatively small percentage of what they submitted or what they co-authored is 23.8%. In addition, 22.5% of international faculty write discussion papers, reports, or monographs for funded projects. Another 12.5% are supervised doctoral dissertations. A little more than 8% is related to a patent or license secured over a process or invention, and 6.3% to other scholarly contributions. Based on the analysis, the international faculty performed as usual as the local faculty members.

4.2 Testing the Measurement Construct

In regards to the survey instrument, the reliability was used to determine whether the items in the study can measure the same construct. Based on the suggestion of previous studies, the composite reliability (CR) has been considered to determine internal consistency, the CR value > 0.7 is required to be deemed adequately [44,50,53]. While Fornell and Larckeu indicated that the reliability statistics greater than 0.60 is considered a reliable indicator [54]. It provides a feasible threshold for selecting the CR.

The findings suggest that the CR values obtained for each construct range from 0.821 to 0.946, while Cronbach's alpha range from 0.682 to 0.919. Both CR and Cronbach's alpha are satisfactory and accepted, implying that the 3 latent constructs in this study have high levels of internal consistency as Urbach and Ahlemann's criteria [55]. In convergent validity analysis, the external factor loadings are greater than 0.5 and average extracted variance (AVE) value is larger than 0.5. Hair et al. pointed that these items represent good estimators with an outer loading larger than 0.5 [53]. As a result of the analysis, some items were eliminated based on the AVE values for each construct that must be greater than 0.5 and the CR values greater than 0.7 [50,53]. This study also found that all items

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exceeded the specified level except items GV1, GV3, GV4, CWSat1, CWSat2 and CWSat 6-8 which have to be removed due to failure to meet the minimum requirements of factor loading. In spite of some items omitted, the findings indicate that the items in the study have satisfied validity and reliability to measure all elements.

4.3 Verifaction of the Structural Model

The PLS-SEM tests the proposed model with four latent variables: Institution View (IV), Government View (GV), Current Work Satisfaction (CWsat) and Overall Satisfaction (OSat). Using bootstrapping, we calculated t values, p values for confirming the path coefficients (β) are significant after extended the sample size to 5000. The results of hypotheses testing are displayed as follows:

Hypothesis 1 (H1) evaluates whether international faculty's institution view (IV) positively influences current work satisfaction (CWSat). The result revealed that IV has no significant effect on CWSat (β = 0.102, t = 0.129, p > 0.001). Hence, H1 was not supported.

Hypothesis 2 (H2) evaluates whether international faculty's government view (GV) positively influences current work satisfaction (CWSat). The result reveals that IV has significant effect on CWSat (β = -0.463, t = 5.101, p < 0.001). As a result of the reverse questions, the path coefficient is negative, but the p value is still significant. Therefore, H2 was supported.

Hypothesis 3 (H3) evaluates whether international faculty's current work satisfaction (CWSat) positively influences overall satisfaction (OSat). The result revealed that CWSat has significant effect on OSat (β = 0.514, t = 4.244, p < 0.001). Therefore, H3 was supported.

Table 3 demonstrates the results of bootstrapping with resampling technique (5,000 subsamples) to examine the effect of IV and GV on CWSat and OSat. The path coefficients of H2 (GV -> CWSat) and H3 (CWSat -> OSat) are -0.463 and 0.514, respectively.

Table 3. Summary of path analysis.

Hypotheses	Structural Coefficient (β)	Standard Deviation (STDEV)	t Statistics (|O/STDEV|)	p Values	Hypothesis Result
H1: IV -> CWSat	0.102	0.129	0.789	0.429	
H2: GV -> CWSat	-0.463	0.090	5.101	0.00***	Supported
H3: CWSat -> OSat	0.514	0.121	4.244	0.00***	Supported

Note. *p<0.10, **p<0.05, ***p,0.01

The hypotheses H2 and H3 are supported. The results of testing structural relationships are displayed in Figure 4. The negative path coefficient on GV -> CWSat implies the government views are negative impact international faculty's current work satisfaction.

5. Discussion

Since international campuses have become a movement in contemporary higher education settings, international faculty could be a unique target that need to be addressed. While previous studies provide very limited literature to tackle this group. This study presents an example to explore this topic. Even though the situations and experiences of international faculty are different by nations and by cases, the integrated information is still useful. This study demonstrates the two parts of survey, one focuses on career and professional situation, the other focuses on conceptual model testing. The design and finding can enrich the knowledge of this field.

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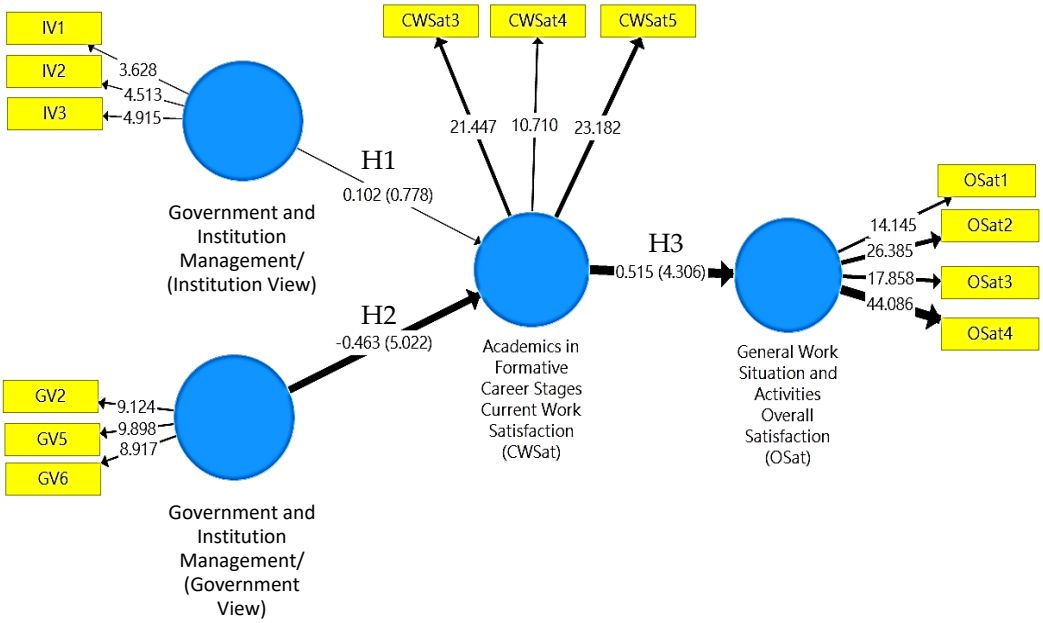

Figure 4. The SEM model analysis of IV, GV, CWSat and OSat.

Firstly, the demographic profile survey may provide useful information for government or institutional policy makers. The international faculty in Taiwan maintains stable employment due to permanent employment or fixed-term employment with permanent positions. Taiwan has accepted a variety of nationalities of foreigners as indicated by the 80 respondents whose nationalities are from 23 or more different countries. Their academic disciplines are primarily in the humanities and arts or engineering, manufacturing and construction. The result can reflect the current academic trend in in a specific country.

Secondly, why international faculty members are choosing to teach or doing research? According to IMD's latest report on world talent for 2021, Taiwan improved from 13th place in 2020 to 9th place in 2021 in the section on brain drain and migration of highly-skilled foreign workers [56]. This indicates that the National Development Council (NDC) of Taiwan's goal to create an environment favorable to foreigners to work has been affected in this way by the Act for the Recruitment and Employment of Foreign Professionals [57]. Taiwan's higher education institutions provide a great academic environment for international faculty to devote themselves to their academic and professional pursuits. For policy makers, the average of increasing international faculty growth is less than 1% in Taiwan's HEIs in recent years. Previous studies have used the ministry of education database or national survey to know the current distribution of international faculty [22]. The survey indicates that most international faculty members work full-time as lecturers or assistant professors in most public universities. Considered the finding suggest that government view is negative with the academic satisfaction, it is critical that related policymakers consider knowing for both public and private universities to recruit international faculty, such as more funding to support private higher education institutions.

Thirdly, satisfaction is an influential indicator to judge the effectiveness of government's policy and institutional strategies. Previous studies have indicated the satisfaction can be considered with related factors [38-40,42,58]. However, this survey reveals perspectives on institutional view is not significant effect their current work satisfaction. It is also possible to investigate the detailed reason, by way of qualitative approaches, why they view the working conditions in HEIs. For higher education internationalization purposes, the design of this study may provide useful information for what the condition of the

 doi:10.20944/preprints202206.0297.v1

international faculty faced that should be improved. The PLS-SEM can confirm that satisfaction is an influential indicator to evaluate effect of recruiting and retaining international faculty for government and institutional policy makers. As previous mention, international faculty can accelerate the campus' internationalization that prompt to build sustainable higher education. This research approach can quickly attach the core issue that provides specific information to ameliorate the situation of attracting and maintaining international faculty.

6. Conclusion

The international faculty may have a variety of cultural backgrounds, their motivations for working could varied. An adequate quantitative research design can help establish reasonable dimensions for specific research purposes. Based on the research design and verification process, this study demonstrates the designed instrument and PLS-SEM are useful to tackle the issue of international faculty. In the conceptual research framework, we found it is feasible to interpret the situations of international faculty in a specific country, but not limited.

Considered the internationalization has become an important movement, immediate studies for policy purposes will emerge in higher education. This study, as an exploratory study using an innovative approach, provides an example for conducting further similar studies, not only regarding the theoretical framework but also regarding international faculty's working conditions in HEIs. In spite of the low sample size, this study has shown PLS-SEM can be conducted with limited samples to achieve validity and reliability. This study suggests that using PLS-SEM to interpret the perspective of international faculty can contribute to the further development or review of a theoretical framework to deeply understand the relationships among international faculty's perspectives on campus life.

Author Contributions: Conceptualization, C.-C, C & D.-F.C.; methodology, C.-C, C & D.-F.C.; software, C.-C, C & D.-F.C.; validation, C.-C, C & D.-F.C.; formal analysis, C.-C, C & D.-F.C.; investigation, C.-C, C & D.-F.C.; resources, D.-F.C.; data curation, C.-C, C & D.-F.C.; writing—original draft preparation, C.-C, C; writing—review and editing, D.-F.C.; visualization, C.-C, C & D.-F.C.; supervision, D.-F.C.; All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Funding: This research received no external funding.

Data Availability Statement: Most of data transformation is contained within the article. Data available on request due to restrictions. The data presented in this study are available on request from the corresponding author.

Conflicts of Interest: The authors declare no conflicts of interest.

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