Intentions of Language Learning among Macau Frontline Employees in Hospitality Industry: Application of the Theory of Planned Behaviour Model

Ying Chuan Wang

Abstract—**The purpose of this study attempted to explore intentions of frontline employees on language learning in Macau hospitality industry. Without exploring learners' intention, the successful language learning cannot be achieved. Various factors promote or hinder language learners from the implementation of behaviour, that is learning a language. As Macau is one of famous tourist destinations, diversifying single economic development on gaming industry has been enforced. Acting the platform between China and Lusophony countries has also been initiated. Developing language competence in hospitality industry becomes essential in Macau. Hence, this study is crucial for language teaching and learning contexts in hospitality industry while it is anticipated that more and more international tourists will be received in Macau soon after recovering from COVID-19. In this study, the theory of planed behaviour suggested by Ajzen (1991) [1] was applied to explore language learners' behavioural intentions in terms of learning either English or Portuguese. After a pilot study, the main study was conducted in November 2019. The research findings showed attitude, subjective norm and perceived behavioural control had positive and significant impacts on language learning intention. Specifically, subjective norm was the most influential factor affecting learners' behavioural intention, followed by perceived behavioural control and then attitude. Significant others therefore played the key factor on influencing learners to take an action on learning languages in the society of Macau. This finding may result from job requirements in the labour-market. Finally, the study contributes to educational literature by demonstrating the importance of intentions on frontline employees' language learning by applying the theory of planned behaviour. Practically, based on the aspect of social psychology to scrutinise learners' behavioural intention, it would allow language educators adopting effective teaching and learning approach to satisfy learners' needs.**

Index Terms—**The theory of planed behaviour, language learning, frontline employee, hospitality industry.**

I. INTRODUCTION

Macau has been a popular tourist destination as it is so-called "Monte Carlo of the Orient". Since Macau returned China in 1999 after former Proruguese colony for almost four and half centuries, the Chinese government allows casinos to operate for tourists from mainland China. Along with the gambling industry, Macau's per capita gross domestic product (GDP) has reached over US$86,355 in 2019. The number of tourists was increasing and more than 30 million passengers before Covid-19 pandemic. At the same time, more than one third residents worked in hospitality industries so that service industries became the biggest businesses in

Macau. Basically, majority Macau Chinese views Cantonese is their mother tongue and widely used in every domain of Macau society [2]. If economic development in Macao always induces locals to learn and speak a language, a good command in Chinese language (Cantonese and Putonghua) seems to be enough for jobs as most tourists are from Mainland China. After handing back to Chinese sovereignty, the importance of Chinese (Putonghua) in public activities has been enhanced on promoting economic exchanges and cultural cooperation between all nationalities and Chinese regions. That might be the reason why English and Portuguese language do not speak widely in Macau.

On the other hand, political change and economic development has deeply influenced the use of language in Macau. This explains that English language and Portuguese language play certain roles in the society of Macau. As to political reason, Portuguese was the only mean of communication between Chinese civil servants and their Portuguese supervisors in the colonial government [3] before returning to Chinese sovereignty. Afterwards, Portuguese is used as an official language by the executive authorities, legislature and judiciary of Macau Special Administrative Region. Consequently, there is only 0.7% people speaking Portuguese [4]. In relation to English language, English becomes semi-official language (de facto official language) in Macau, which is driven by economic reason. Because of seeking jobs in Hong Kong at earlier time and working in international companies nowadays, it makes English language become a required skill for employment. Surprisingly, it is only 5.7% people speaking English, which is slightly higher than people speaking Portuguese [4].

Currently, gaming industry is a source of instability in the Macau economy so that diversifying tourism development and increasing international tourists could be effective solutions to strength Macau tourism economy. As a result, the intention of language learning becomes essential for economic development in multilingual society of Macau. Language plays a vital role in communication on providing customer satisfaction in hospitality industry. As a result, it cannot be achieved without learning languages when Macau intends to become the world centre of tourism and leisure, and the platform between China and Portuguese speaking countries.

This study, therefore, attempted to investigate the intention of frontline employees on language learning in the hospitality industry. A well-developed theory on examining language learning intention is theory of planed behaviour (TPB) suggested by [1]. This framework explains that intention is affected by three factors: attitude towards behaviour (AB), subject norm (SN), and perceived behavioural control (PBC).

In other words, the participants' attitude, the influences from their surroundings, and self-efficiency are important factors towards their learning behaviour. Theoretically, it is hoped the findings could fill the gap of language learning literature in multi-lingual society of Macao. Practically, the results of this study would provide some useful suggestions to the language teaching and learning contexts in Macao to improve language education.

II. LITERATURE REVIEW

A. Multilingual Society in Macao

Portuguese language in Macao was only language spoken by minority people (e.g. native Portuguese and Macanese), and public servants [3] during the colonial period. Even though Portuguese medium instruction conducts in some of Macao public schools, but those schools are few in numbers [2]. Therefore, most Chinese-ethnic local people could utter limited Portuguese words and phrases for very basic communication except for those who studying in government grammar schools. Unfortunately, Portuguese eventually becomes less competitive language in the multilingual society of Macau. Resulting in Portuguese language as official language, it does not carry with much meaning to actual practice [5].

On the other hand, English has been regarded as 'de facto and semi-official language' [6] as the main subject taught from kindergarten to senior secondary school in Macau. Almost all Macau students are English-knowing although their proficiency level varies widely. English proficiency level is perceived to be one of the indicators of the school's performance and credential [7]. Many parents also believe that a good command of English is important for the future of their children. In addition, Macao is a popular international tourist destination so that English has been widely used in various business sectors. Sheng [8] argues that the lack of English competence would prevent Macau from international competition. Similarly, Jin et al. [9] also indicated that the purposes of learning English among young people are for employments, expectation from parents, and self-development.

Nowadays, tourism booms along with the exchange of trade and business are creating the need for the use of language. Along with its potential geographic position and economic development, the 2019 plan for Great Bay Area has also initiated to help Macau achieve diversification and sustainable economic development. As Xu [10] claimed, a popular language should be closely related to the power of economic, military, and culture. In response to the current economic development in Macau, it is essential to explore the intention of language learning among frontline employees in the hospitality industry in one hand and to understand the constraints of frontline employees on language learning on the other hand.

B. Theory of Planned Behaviour

The theory of Planned Behaviour (TPB) explains the process of individuals' behavioural intentions [1] which is the proximal indicator of actual behaviour [1], [11]. Hence, the stronger the individuals' intentions to perform a behaviour, the stronger the individual performing a behaviour. In the TPB, intentions are influenced by three antecedents: attitudes, subjective norms and perceived behavioural controls. Attitudes refer to a person's positive or negative beliefs about the likely consequences of performing a behaviour [1], [12]. In the context of the current study, attitude indicates that frontline employees will evaluate the consequences of learning either English or Portuguese based on their own interests. Subjective norms refer to the normative belief that motivates humans to comply with expectations and results from social pressure. That is, the participants' perceived supports and expectations from their families and peer groups on their intentions to learn either English or Portuguese. Perceived behavioural control is the degree of one's perceived ability, degree of ease or difficulty in promoting or hindering the behaviour [13], [14]. In other words, frontline employees will evaluate their perceived competences and controllability of resources and opportunities on learning either English or Portuguese.

C. Attitudes towards Behavioural Intention

Attitude is the core concept of planning behaviour theory. Attitude is the positive or negative emotion that an individual hold towards a specific behaviour. According to the attitude expectation value theory of [15], individuals have beliefs about the possible outcomes of behaviour, called behavioural beliefs. Behavioural beliefs consist of two parts, one is the probability that the behavioural outcome occurs, that is, the strength of the behavioural belief, and the other is the assessment or evaluation of the behavioural outcome. Behavioural intensity and outcome assessment together determine behavioural attitudes [1], [11]. Attitude could be a kind of psychological "good and bad", "harmful and beneficial", evaluation of "pleasure and unhappiness" and "like and dislike" [13].

D. Subjective Norms

Subjective norms refer to the perception of social pressures when individuals decide whether to perform a behaviour. It reflects the influence of important individuals or groups on individual behavioural decisions [13]. The so-called compliance motivation refers to the individual's intention to obey the expectations of an important individual or group [13] [11]. Brown [16] argued that subjective norms can be divided into two categories, one is the external reference group (External Referents), and the other is the trusted group (Credible Referents). In this study, frontline employees in hospitality industries are related to two environments: one is family, and the other is workplace. Therefore, family members and friends, and colleagues could be concerned as their significant others.

E. Perceived Behavioural Control

Perceived behavioural control refers to the degree of an individual noticing his ability enable him to perform a specific behaviour. The degree of ease or difficulty in promoting or hindering the implementation of behavioural factors can be identified [13], [14] into two aspects. One is the internal psychological factor such as the confidence, willpower, skill, emotion. The other is the external environmental impact factors, for example, tight schedule or family obligation. In short, perceived behavioural control is individual's perceived factors that promote or hinder the execution of behaviour when an individual takes an action [1].

In current study, frontline employees in hospitality industries may evaluate their challenges and difficulties towards language learning. Given the aforementioned discussion, this study therefore proposes that:

H1: Attitude has a positive and significant impact on language learning intentions.

H2: Subjective norm has a positive and significant impact on language learning intentions.

H3: Perceived behavioural control has a positive and significant impact on language learning intentions.

III. RESEARCH METHODOLOGY

A. Participants

This study focuses on full-time Frontline employees (FLEs) in customer-contact roles in the context of the Macau hospitality industry where face-to-face communication are conducted. The purpose of studying Frontline employees (FLEs) was that they are a key source of competitive advantage for organizations as they have a significant impact on the customer service quality through interactions. Mainly, the participants from hotel full-time employees whose primary job duties focus on customer service, such as front desk clerks, porters, concierges, and waiters and waitresses in restaurants.

B. Research Instruments

The survey measured variables including the Theory of Planned Behaviour (TPB) constructs (e.g, attitudes towards behavioural intention, subjective norms, and perceived behavioural control) to behavioural intention. In the current study, the focal decision was intention to learn a language on either English or Portuguese. The questionnaire consisted of three sections. The first section contained demographic information about the participants. The second section contained two types of closed-end questions about participants' behavioural intentions. A total of 28 items were direct measurements from Ajzen's TPB. Behaviour intentions (BI) were measured through four items (e.g., I plan to learn English/ Portuguese), examined participants' behavioural intention about learning English/ Portuguese. Attitude towards behavioural intention (AB) included eight items (e.g., learning English/ Portuguese is meaningful for me), captured participants' attitude toward the language learning. Subjective norm (SN) comprised eight items (e.g., my colleagues think I need to learn English/ Portuguese), represented other important individuals influencing participants' intention on language learning. Eight items in the scale of perceived behavioural intention (PBC) assessed participants perceived self-efficacy on conducting a behaviour. (e.g., I believe I have ability to overcome any difficulty when learning English/ Portuguese). All questions were measured by using Likert scales, ranging from 1 (strongly disagree) to 7 (strongly agree). To eliminate the confounding effect, the measurement items corresponding to the particular construct was randomly ordered in the survey.

Two professional English teachers, who are Chinese native speakers, were invited to double check the translations of the scales to make sure the appropriateness of the instrument in Chinese version, before measuring in Chinese. When the major disagreement occurred, the negotiation of those different translation was applied. Moreover, the wording of the questionnaire would be needed to adjust for making both languages to be equivalent and smooth like natural sounding. The gender variable is dummy coded, with one for male and zero for female.

C. Data Collection and Analysis

Firstly, 450 paper-based questionnaires (around 50 copies per hotel) in a total of 9 hotels and restaurants were delivered to the in-charges of front office and food and beverage departments with sufficient explanations about the research ethics, purpose and the targeted participants. After that, the researchers collected 358 responses (79.5%) over a month period from the beginning of November 2019. Later this researcher discarded 18 questionnaires as they were omissions from survey questions or filled out insincere responses. Finally, 340 valid copies were collected and analyzed by means of using SPSS 21.0 and Amos 22.0.

Among 340 respondents, male respondents had the highest frequency level at 52.1 % while female respondents' frequency level was 47.9 %. In terms of respondents' age, 7.1 %, 62.5 % and 14.8 % of the respondents were within the age brackets of below 20, 21-30 and 31-40 respectively, while 11.7 % and 3.9 % were within the age bracket of 41-50 and 51-60. Most participants were university or college-educated (62.5%), had completed graduate school (12.1%), had graduated from vocational or senior high schools (16.5%) and had graduated from secondary schools and below (9.2%) accordingly.

A partial least squares (PLS) approach was employed to assess the measurement properties of the model (i.e., reliability, and convergent and discriminant validity), as well as to test the conceptual relationship among the variables. PLS is a variance-based structure equation modelling (SEM) method that maximizes the explained variance of a model's latent constructs and has some advantages in predictive research [17], [18]. Given the PLS approach is a variance-based SEM method (vs. covariance-based SEM method) [19], it is not as sensitive toward normality and sample size as covariance-based SEM method. This facilitates the popularity of conducting this method across a wide range of contexts [17], including the current language learning studies [20] and student's entrepreneurial intentions [21]. We used Warp PLS 6.0 software program to run the relevant analysis procedures.

IV. RESEARCH FINDINGS

Table I shows the means, standard deviations, AVE scores, discriminant validity and reliability of the TPB constructs. Means of the TPB constructs are all positive and above the median point of the scale. This suggests current respondents have general moderate positive attitudes, subjective norms, perceived behavioural control and intention towards learning English/Portuguese across all models.

TABLE I: MEANS, RELIABILITY, AVE AND CORRELATIONS BETWEEN THE CONSTRUCTS OF THE TPB MODEL

Construct	Items	M(SD)	Cronbach's Alpha	AVE	ATT	SN	PBC
ATT	8	4.28(1.48)	0.95	0.85			
SN	8	3.99(1.74)	0.98	0.89	0.76		
PBC	8	3.97(1.54)	0.96	0.88	0.77	0.74	
INT	4	4.39(1.84)	0.95	0.91	0.78	0.83	0.81

Note. ATT=Attitude; SN=Subjective norms; PBC=Perceived behavioural control; INT=intention. Standard deviations are in parentheses.

In addition, all items have above 0.7 threshold factor loadings, suggesting a sufficient variance accounted by the particular construct on a particular factor. The maximum squared correlation between the constructs was less than the smallest AVE scores for those constructs. Consequently, discriminant validity was assumed for all constructs [22]. Cronbach's Alpha was used to measure reliability that is to the extent that each measurement of a test showed high consistency over repeated tests of the same subject under identical conditions. An alpha value above 0.7 suggests a considerable good reliability. Current findings show the Aphla values are all above 0.8, indicate the current construct high reliability and internal consistency.

The WarpPLS partial least squares program was used to assess these properties. The three TPB antecedents accounted for 78% (see Table II). The TPB constructs: attitudes, subjective norms and perceived behavioural control all have positively significant influence on intentions to learn language across all models. Therefore, H1, H2 and H3 are supported.

TABLE II: PATH COEFFICIENTS FOR THE THEORY OF PLANNED BEHAVIOUR MODEL; MODEL FIT INDICES

	Overall (N=340)
ATT->INT	0.22***
SN->INT	0.33***
PBC->INT	0.42***
R^2	78%
APC	0.32***
ARS	0.78***
AARS	0.78***
AVIF	2.86
AFVIF	3.68
GoF	0.78
SPR	1
RSCR	1
SSR	1

Note. APC: Average path coefficient; ARS: Average R-squared; AARS: Average adjusted R-squared; AVIF: Average block VIF, acceptable, if <=5, ideally <=3.3; AFVIF: Average full collinearity VIF, acceptable, if <=5, ideally <=3.3; GoF: Tenenhaus GoF, small >=0.1, medium >=0.25, large>=0.36; SPR: Sympson's paradox ratio, acceptable, if>=0.7, ideally=1; RSCR: R-squared contribution ratio, acceptable if >=0.9, ideally=1; SSR: Statistical suppression ratio, acceptable, if>=0.7. *p<0.05, **p<0.01, ***p<0.001.

Overall, subjective norms have the most significantly positive effect on intentions to learn language either English or Portuguese (β_{SN-INT}=0.33, p<0.001), followed by perceived behavioural control ($\beta_{PBC-INT}$=0.42, p<0.001) and attitudes ($\beta_{ATT-INT}$=0.22, p<0.001). The results suggested that as expected, when frontline employees perceived encouragement, support and approval from important others, their intentions of learn language would be higher. Next, their intentions would be also increased when the participants found that they could eliminate the prevention from learning languages. Finally, the language attitude was the least influential factor towards the intention on language learning.

V. CONCLUSION AND RECOMMENDATIONS

The purpose of this study was to identify the factors behind frontline employees' behavioural intention toward language learning. Drawing on the theory of planned behaviour, the findings showed that attitude, subjective norm, and perceived behavioural control have significantly impacts on behavioural intention. Therefore, three hypotheses were supported. Specially, subjective norm was the most

influential factor towards behavioural intention, followed by perceived behavioural control and then attitude.

This research reveals the main factor toward the act of learning language is how others encourage the behaviour. Importantly, market-oriented and the expectation of parents [6], [23] are still the main reasons for employees to learn a language. Family and circle of friends play a big part on frontline employees' engagement. This result also showed how Chinese families in Macau perhaps enhance dominating power on the family members' decisions. It raises the issue of how much pressure Chinese families put on their offspring or younger family members to do something they believe it is best for them. On the other hand, people are more collectivists (vs. individualists) tend to be more motivated by their perceptions of others' expectations and see others' needs as a priority. This explains the findings of this study and confirmed the influence of subjective norms on language learning intentions was significantly stronger than the other two factors.

As to the factor of perceived behavioural control was second influential factor towards language learning, this result revealed that participants might prevent themselves from language learning as they encountered great difficulties or challenges. Those difficulties may be from internal or external factors. The participants in this study are frontline employees. The external factors may be tight schedules and shifts at their workplaces and family obligations after their work. In addition, learning skill and confidence could be another reason to affect their learning intention. Therefore, it is suggested language programs should not be only provided by educational institutions but also hospitality industry. Providing service-related language programs as staff training programs at the right level of language proficiency could care for staffs' emotions and time from their work and family obligations. Under this circumstance, the participants are likely to be motivated to learn when they perceive less hinders from their internal and external factors.

Attitude is the least influential factor towards the participants' behaviour in comparison with subjective norm and perceived beahvioural control. Findings indicates that the fact that the participants have positive attitude towards language learning as they manifest affective attitude towards the behaviour, demonstrating that learning language is an enjoyable practice. The participants also showed high levels of instrumental attitude, revealing that the behaviour is considered very beneficial to them. For instance, to learn and speak a language might be because of employment. It is interesting to discover Portuguese in Macau is still spoken by minority people [24] in certain occasion and contexts, but it does not mean that the participants reject to learn it [25] and view Portuguese as a "colonial" language. This confirmed that instrumental attitudes lead them to learn a language for their further career and less relating to psychological reasons.

In conclusion, the results suggested that the expectation and pressure from society may be the most important factor on influencing the participants to learn a language. Next, evaluating their competences and controllability of resources and opportunities was the second influential factor for the participants to decide on learning a language. It is because the frontline employees have different shifts on their tight schedules so that limited time may be one of the reasons and

setting up an appropriate learning goal could be another one. Learners' attitude became the least influential factor towards learning intention. This might be that language is basic requirement for being employed in hospitality industry as interaction with customers through various languages cannot avoided.

Language learning in the complex issue in multilingual society of Macao. Bing a famous tourist destination and acting the platform between China and Lusophony countries, language as communicative tool is vital in the service industry in Macau. Frontline employees are the person who frequently encounter international customers and involve face-to-face communication. Being able to speak several languages can increase customers satisfaction in one hand, avoiding language barriers from misunderstanding on the other hand. As a result, educational authority in Macau should consider offering bilingual and trilingual education [26] at different stages of schooling as optional course [24] to improve language competence of young learners. Moreover, according to the economy developmental strategies in Macau, education authority can provide various language training programs to young employees to equip themselves well for better future.

VI. LIMITATION AND RECOMMENDATION

There are still some research limitations in this study. As Macao is a special multilingual context, promoting both English and Portuguese language learning is driven from historical background and economic concerns. This may not the issues of generalization to other multilingual countries. It is suggested that future researchers can conduct their studies on other multilingual communities or countries to find out different issue regarding the use of language in multi-ethnic communities. Finally, future studies may also investigate employees in another industries.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Y. C. Wang conducted this research, analyzed the data and wrote the full paper.

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Ying Chuan Wang is an assistant professor at the Faculty of International Tourism and Management, City University of Macau, Macau. Her research interests include language communicative competence, computer mediated language learning, teaching and evaluations, communication strategies, and pragmatic competence. She is also interested in intercultural communication in tourism and hospitality contexts. From psychological perspectives to study language learners' writing and speaking within computer mediated environment is another focus of her study.