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   c. Introduction
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         * *Related Literature/Studies (no. of words/literature) most relevant related literature*
         * *At least ten related lit (relevant), focus on the research gap*
      c.2. Objectives and Hypotheses
      c.3. Theoretical Framework and Conceptual Framework, as applicable.
      c.3. Significance of the Study
      c.4. Scope of the Study (*Limitations, and Applicable Definitions*)
      c.5. Related Literature/Studies
   d. Methodology (at least 2 literatures about the chosen methodology/methods)
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   h. Acknowledgement
   i. References

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MESSAGE

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Embrace the journey of growth in your research endeavors. Every opportunity to learn and improve your skills is vital for your professional progress. Each paper you read, experiment you conduct, and collaboration you join helps you become better. Stay curious and eager to discover new things. Excellence isn't a goal but a continuous effort. Push your limits and keep refining your expertise. Your dedication to improving your research abilities opens up endless opportunities for your career. Keep pushing forward, keep learning, and witness your potential blossom.

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Fear, Stress, and Readiness in Handling COVID-19 Patients among Nurses

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Abstract

Readiness of nurses in handling COVID-19 patients is crucial for them to be effective and efficient on the bedside. Also, fear and stress creates a lasting impact on how the healthcare workers perform during this health emergency. The study explored the strength of the relationship between fear, stress, and readiness in handling COVID-19 patients in a private hospital in Iloilo City, Philippines. The data were gathered using the Fear of COVID-19 Scale by Ahorsu et al., (2020), Perceived Stress Scale by Cohen (2021), and a researcher-made, validated Readiness Scale. Majority of the nurse respondents experienced moderate levels of fear in handling COVID-19 patients and had moderate levels of stress. Despite this, majority had high level of readiness. The levels of readiness decrease as the level of fear and stress increase during the unanticipated times of pandemic. Stress management programs and addressing fear of staff nurses during unprecedented times of pandemic is crucial to ensure their readiness.

Keywords: *Nurses Assignment to COVID, Fear of COVID 19, COVID-Related Stress*

INTRODUCTION

Background and Rationale of the Study

Coronavirus disease which is well known as COVID-19 is a contagious infection from the SARS - CoV-2 strain virus (WHO, 2020). A few will develop into seriously afflicted and may require necessity for medical attention. Elderly and those with comorbidities and medical cases are prone to evolve to severe illness. Anyone can be prone to COVID-19 and may become very ill, progress into complications or die at any age.

Nurse readiness is essential in continuing health functional services, mitigating and controlling the escalation of COVID-19 (Alquwez et al., 2021). It usually comprises the prevention, assessment, containment, management, controlling, monitoring, and diagnosing of people with COVID-19 and those who are in close contact to them by organizing and applying facility minimums health protocol.

According to projections made by the World Health Organization, a significant surge of confirmed cases with infected individuals would continue to strain hospital beds, resources, and staff, making it impossible to care for additional patients (WHO, 2021). During the start of COVID-19 pandemic, no health facility has a compelling clinical pathway and containment process, resources like PPEs are insufficient; and there is an increase in the work capacities of nurses. Mental health problems are factors that arise, to mention some, irritability, physical and mental exhaustion, and stress, among nurses (Balay-odao et al., 2021).

The consequences brought about by this pandemic are presumed to develop nurses more likely to have psychological aberrations (Fritscher, 2022). With the impending effect of COVID-19 and extra workloads given to nurses, there is a need to develop factors to protect nurses to safeguard their psychological well-being. In line with one of the prime pieces of evidence, Bartzik (2021) hypothesized that there is an indirect correlational association between pandemic-related perceived stress and frequency of flow experiences, same with the contentment in work, life, rigor, and as a whole being. As defensive factors in dealing with stress related to this pandemic, he suggested an individual's sense of humor and recognized self-recognition.

In circumstances of pandemic which requires health emergencies, like the COVID-19, nurses are placed in the frontline works to combat, doing face to face interventions with patients affected by the deadly virus. Frontliners actively immersed in fighting against COVID-19, having nurses lay open to danger and risking to be infected which moreover can have major impact to mental stability of individual as they are expected to have more workload than pre-pandemic and emotional burden in many front-line operating contexts (Galleta, et al, 2021).

However, the readiness of the staff nurse is still a gray area. In Dubai, they have found that the concerns be facing by nurses can be discussed into two main points: (1) shortages of staffing, depression maybe associated to fear of infection and anxiety, a poor communication with patients, and fatigue related to long working hours, not receiving due compensation and (2) not enough supply of medical instrumental needs like machines and resources like

protective clothing also called as PPE (Al Thobaity, 2020).

In the Philippines, from month of January 2020 until December 2021, an estimated total of 2.8 million COVID-19 confirmed cases with more than 50 thousand deaths were reported (WHO, 2021). Locally, the virus reached Western Visayas in March 2020. The Iloilo provincial government was hiring nurses and medical doctors to augment hospital capacity in its response against the COVID-19. The provincial administrator noticed slowing in the hiring process because the additional human resources will be performing COVID-19 dedicated duties. (Mamon, 2021)

Nurses need to improve their level of readiness to be mindful and alert to control and attend to new cases of Coronavirus-19. They shall develop to respond to various public health emergencies, bearing in mind that fronting the pandemic needs situational leadership and style of interventions wherein there is no one-size-fits-all approach to control cases and flare-up of COVID-19. Every healthcare worker should identify the risk and immediately execute the necessary course of action at the pertinent scale to mitigate both COVID-19 spread that may affect the general public economically, and socially.

With this pandemic, healthcare workers are hesitant to be deployed in facilities. Many of them resigned from their professions at the onset of the pandemic. The healthcare facilities suffered manpower deficits due to massive resignation of its employees and slow turnover of hiring for augmentation and replacements of the latter. Stress and fear are some of the factors considered in the turnout of this event. One reason for their lack of readiness to be assigned in the COVID-19 area is the fear.

Considering the stress and fear of nurses to be deployed in the COVID-19 area could be an important aspect of consideration, as it will manifest in the turn out of their effectiveness in dealing with COVID-19 positive patients. Exploring the relationships among fear, stress, and the readiness of nurses to be assigned in the COVID area could be important in the healthcare system as it entails more effective stirring of staff within the institution, thus the conduct of this study.

Objectives of the Study

This study aimed to determine the level of fear, stress, and readiness in handling COVID-19 patients among nurses in a private hospital in Iloilo City, Philippines.

Specifically, this study aimed to:

1. determine the level of fear on COVID-19 among the staff nurses;
2. determine the level of stress among the staff nurses;
3. determine the level of readiness on handling COVID-19 patients among nurses;
4. determine whether there was a significant relationship between the fear on COVID-19 and readiness in handling COVID-19 patients and;
5. determine whether there was a significant relationship between the level of stress and readiness in handling COVID-19 patients.

Theoretical and Conceptual Framework

This correlational study was anchored on the Protective Action Decision Making Model (PADM) Lindell (2018). It was developed to help explain how people decide when and how to act in an unfamiliar event or emergency. The model posits that environmental and social cues, informational sources, channel approach and performance, warning messages, and receiver attributes may have a great impact on one's decision in dealing with relatively new or unfamiliar situations. The elements, individually and in entirety, aid in the individual's behavioral response.
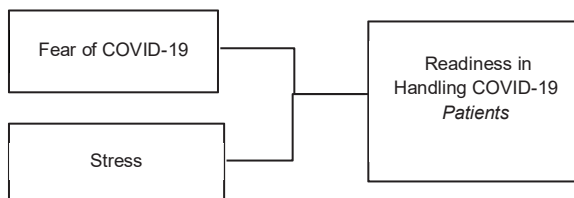
Figure 1. Schematic Diagram showing the Assumed Relationship of Variables

Definition of Terms

Fear. It is a feeling of being afraid or an unpleasant emotion caused by being aware of instability (Fritscher, 2022). Fear results from being threatened with harm of either physical, emotional, and psychological. It has been considered traditionally as a "negative" emotion; fear actually helps people be safe through preparation to avoid possible danger. In this study, fear was the feeling of dread of nurses that might affect their readiness in handling COVID-19 patients. It was measured by using the Fear of COVID-19 Scale by Ahorsu et al., (2020). It is composed of seven (7) questions and answerable in a five-level Likert scale as follows:

"strongly disagree," "disagree," "neutral," "agree," and "strongly agree." The possible lowest score for each question is 1 and the maximum is 5. Total score could be determined by summing up each item score ranging from 7-35 (Ahorsu et al., 2020). It was categorized as follows: "Low Fear" if the score is 7 to 14; 15 to 25 is "Moderate Fear", and 26 to 35 for "High Perception of Fear."

Stress. It is a perception of physical pressure and emotional tension, it may result from any event or thinking that makes one feel angry, frustrated, and nervous. In this study, stress was defined as the perception of nurses when being deployed in the COVID-19 area as their workloads will be increased, as expected due to demands of this viral infection. Stress levels were assessed by using Perceived Stress Scale (PSS) by Sheldon Cohen (2021). It is a 10-item questionnaire with five Likert-type answers. Scoring was obtained by summing up across the scales. It is categorized as "Low Stress" for scores ranging 0-13, "Moderate Stress" for scores 14-26, and "High Perceived Stress" for scores ranging 27-40.

Readiness. The degree of preparedness to act or respond to a particular stimulus. It is the quality or state of being ready or a state of preparation and willingness (Sam, 2013). In this study, readiness was defined as what level the nurse could be able to perceive their preparedness in handling COVID-19 patients. It was measured using a Likert-type scale with five (5) items in each question, which comprises ten (10) questions. Scores will be added with a minimum scoring of 0 and maximum of 40. It is categorized as "Low Readiness" if the sum is 24 and below, "Average Readiness" if the sum is 25 to 34, "High Level of Readiness" if the sum is 35 to 40.

Significance of the Study

The findings of the study were deemed to be beneficial to the following:

Nurses. This study increased their awareness on how they can foresee and brief themselves in handling patients with COVID-19. Allowing them to prepare holistically before being deployed in the COVID-19 areas. This study would be relevant for it may help them prepare when they are in need to augment staffing in the COVID-19 areas.

Nurse Managers and Human Resource Management Staff. It will also benefit the nurse managers in deploying bedside nurses to COVID-19 areas, ensuring readiness and providing opportunities to perform fear and stress debriefing before they are assigned. They will also include seminars and activities pertaining to stress and fear reduction when deploying healthcare workers in the area.

Future Researchers. This study may assist future researchers in formulating related research problems and it may also serve as a basis for their future study. It is apparent that there are numerous emerging variants of COVID-19 that cause nurses and other healthcare workers worry about their professions, this study may serve as a spring-board for other members of the healthcare team to study and consider new programs and trainings to combat fear and stress as a breakthrough for this problem.

Scope and Limitations of the Study

This descriptive correlational study aimed to determine the relationships of fear, stress, and readiness in handling COVID patients of nurses of a private hospital in Iloilo City during the first year of pandemic from March 2020 to March 2021.

This study was initially planned to be conducted in September to October 2022; however, the actual data gathering period was November to December 2022.

REVIEW OF RELATED LITERATURE

Review of Related Concepts
COVID-19 Pandemic and the Healthcare Workforce

Coronavirus disease which is well known as COVID-19 is a contagious infection from the SARS - CoV-2 strain. Mild respiratory illness will be the most common presentations of people infected with the virus and they may be cured and regain optimum health without requiring medical attention and treatment. A few will develop into seriously afflicted and may require necessity for medical attention. Elderly and those with comorbidities like heart and lung diseases, diabetes mellitus and cellular aberration, such medical cases are prone to evolve to severe illness. Everyone can be sick of COVID-19 and may become very ill, progress into complications or die at any age (WHO, 2021.)

COVID-19 has afflicted the life and well-being of not less than one million people across the world. This pandemic over powered several regions' healthcare workforce and systems and greatly disturbed the frontliners like nurses battling on healthcare facilities to protect the lives of each individual infected by the deadly (Al Thobaity, 2020). Considering the issues and hindrances of nurses in facing the battle would be contributory in developing protocols and planning different strategies to improve the preparedness in combating this pandemic; thus, this integrative review will scrutinize every issue the nurses are facing to address and develop responses to the COVID-19 crisis. Evidence about the behavior of civil society organizations, like the Sereni Association, is produced by

transdisciplinary research. Institutions must use this evidence to pinpoint and correct public health response flaws in order to help communities get ready for emerging infectious threats (Alfieri, C., et al, 2020).

Every country is equipped with vital gems and resources called Health-care providers (Liu, Q., 2020.) With continuous patient safety care, including taking care of patients with communicable diseases, their health and safety are at stake, much more on dealing with emergent control of outbreaks. Severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) outbreaks were some of the dangerous and well-known happenings of the past that lead to devastating number of deaths, which made nurses to experience high level of stress related to prone of infection, discrimination, lack of staff to maintain manpower, uncertainty, stigmatization, thus leading to a development of comprehensive support as a priority to maintain the healthcare workers' mental stability. Anxiety, depression, insomnia, and stress are some of the mental health risks arising to frontline health workers treating patients with COVID-19 based on some findings of quantitative research. Healthcare workers without training and experience in handling infectious diseases are facing an additional challenge as they try to adjust to a difficult setting and new environment surrounded by stress (Liu et al., 2020.)

Review of Related Studies
Fear of COVID-19

Three characteristics can be used to differentiate between the various types of frightful experiences: intensity, timing, and coping. How severe is the threat? When will the harm occur? Will it happen soon? What steps, if any, may be made to lessen or remove the threat? The threat of injury, whether actual or imagined, is the primary cause of all forms of fear. Our physical, emotional, or psychological health may be at risk. While most of us have particular things that make us fearful, we can learn to be scared of almost anything.

The acute scarcity of nurses, beds, and medical supplies, including personal protective equipment (PPE), as well as reviews suggest psychological alterations and fear of infection among nursing staff, are the main problems nurses are currently facing. Increase in the number of persons affected with COVID-19 poses a threat to the healthcare workers particularly the nurses which compose the majority group of healthcare members (Fernandez et al., 2020; Goh et al., 2021). The significance of these factors shall be an eye opener for everyone to give ample support and establish the nursing needs worldwide to assure that they can work effectively in combat with COVID-19 crisis with much more confidence in themselves. Moreover, this might develop readiness for everyone in combating pandemics and reconsider issues when doing strategic plans. According to Karger (2020), supporting the nurses as they are in the critical frontline make up the defense in every emergent situation like this.

Stress

The work performance of clinical nurses may decline in response to increasing workloads added up by undue effects of this pandemic which causes psychological burden for them. Nurses are making themselves available to do bedside interventions extensively to safeguard and ensure patient's safety and needs are employed. As they give their all to the fight against this illness, preserving their mental stability and strengthening their knowledge and skills to deal with the infection are equally crucial. With the possibility of acquiring the disease more likely, because nurses are in the frontline to address such issues, this may cause fear and anxiety (Balay-odao et al., 2021). They do not have the choice but to face the critical situations and negative conditions that may increase the chances of mental health instability and psychological alterations. The difficulties that healthcare professionals are facing in this crisis could harm them, as well as, ruin the quality of work they are performing in caring with patients (Penwell-Waines et al., 2018). According to a recent study of Ayling (2022), those who were more stressed, anxious, or depressed during the beginning of the pandemic were more likely to have COVID-19. The study discovered a significant relationship between subjects subsequently reporting SARS-CoV-2 infection, a greater number of symptoms, and more severe symptoms, and greater psychological distress during the early stage of the epidemic.

Readiness on Handling COVID-19 Patients

Nurse readiness and resilience are essential for the mental health of nurses as they work in a setting that requires them to be adaptable and quick to react toward any stressors. This is due to the never-ending efforts being made to mitigate the annihilating effects of COVID-19 and stop the spread of contagious disease. Many countries that first faced the pandemic provided other regions have an idea on how to mitigate the effects of pandemic in the welfare system and healthcare workers (Alfieri et al., 2020; Armocida et al., 2020; Oliva et al., 2020). Healthcare providers such as nurses, doctors and other healthcare team members reported burnout and other psychological distress symptoms as they are in the frontline of the defense in combat with the COVID-19 (Barello et al., 2020; Giusti et al., 2020; Marton et al., 2020). The novel coronavirus is a global pandemic that claimed the lives of many people, including medical staff. That puts a strain on the healthcare systems in every nation. Studies on the COVID-19 pandemic are now being conducted in several aspects. Few studies, meanwhile, have looked at the obstacles that affect the use of COVID-19 prevention strategies (Mersha, A., et al, 2021).

METHODOLOGY

Research Design

This descriptive correlational study aimed to determine the level of fear, stress, and readiness in handling COVID-19 patients among nurses in a private hospital in Iloilo City.

Study Population and Sampling Technique

The study population involved all the nurses employed in different units in the selected hospital in Iloilo City with a total of 102 nurses (N = 102) according to the Human   Resource Department of the hospital. The nurses were asked to answer the questionnaire pertaining to their fear, stress, and readiness during the first year of COVID-19 pandemic from March 2020 to March 2021. A sample size of 81 was determined from N = 102 using online sample size calculator by Raosoft (2011) with 5% margin of error and 95% level of confidence.

The participants were chosen based on the following inclusion criteria: 1) employed either in probationary or regular status and 2) employed during the first year of the pandemic (March 2020 – March 2021).

Research Setting

This descriptive correlational study was conducted in a private hospital in Iloilo City. A questionnaire was given to participants via printed form who are currently employed nurses in the healthcare institution.

Research Instrumentation

This study utilized hard copy questionnaire form, in which the respondents were asked to answer the questions with regards to their experiences during the first year of COVID-19 pandemic. The first division was the document that provided information with regards to this study. An informed consent form and letter to the participants were attached to the first part of the questionnaire.

The questionnaire was divided into three parts: Part 1 is Fear of COVID-19 Questionnaire, which was adopted from Ahorsu, et al (2020). It is composed of seven questions pertaining to fear with regards to COVID-19 and it is answerable by Likert scale. Part 2 was the Perceived Stress Scale, also an adopted questionnaire from Cohen (2021). The participants were asked ten (10) questions to answer perceived stress they have been experiencing in a particular situation. In this case, it referred   to the stress related to being assigned to the COVID 19 ward. Part 3, the Readiness in Handling COVID-19 Patients Scale score, it is a self-administered questionnaire suited to assess the readiness through knowledge, skills, and mastery of practice in taking care of COVID-19 patients by answering ten (10) questions and was sent to experts in nursing research and was already validated.

Validity and Reliability of the Study

For the validity of the questionnaire, the instruments in this research study were submitted to three validators who are master's prepared and are experts in the field of nursing administration and research at a private university in Iloilo City.

Reliability test was done with a pre-test of 12 respondents in order to ensure the reliability of the questionnaire which is 10% of the total population. The pretest respondents were not included as respondents of the study. The Cronbach's alpha of Fear Questionnaire was 0.896. Stress and Readiness Tools had 0.903 and 0.965 respectively. And it was held reliable as the Cronbach alpha of all the three scales were more than 0.70 (Polit and Beck, 2012).

Data Collection

Data was collected using manual printed copy questionnaires via the research   department of the healthcare institution. Data collection was done from November 2022 to December 2022. A questionnaire was researcher-developed, and it takes five to fifteen minutes to answer the questionnaire.

Ethical Considerations

This protocol was submitted to the Research Ethics Committee for review and approval. The REC has given clearance to conduct the study from October 17, 2022 to October 17, 2023 (REC Code 2022-199-MS-PATENA).

Data Processing and Analysis

In this study, the data was analyzed using Statistical Package for Social Sciences (SPSS) version 27 (IBM, 2022). Frequency distribution tables, mean, and standard deviation was determined for descriptive analysis.

For Part 1: Fear of COVID-19 Questionnaire: the responses were scored as follows: Strongly disagree – 1, Disagree – 2, Neutral – 3, Agree – 4, and Strongly Agree – 5. The sum of the score will be determined and will be categorized as follows: "Low Fear" if the sum is 7 to 14, "Moderate Fear" if the sum is 15 to 25, "High Perception of Fear" if the sum is 26 to 35.

For the second part of the questionnaire, the Perceived Stress Scale, it was scored as follows: Never – 0, Almost Never – 1, Sometimes – 2, Fairly Often – 3, and Often – 4. Negatively stated questions (4, 5, 7, and 8) will be reversed score as follows: Often is 0, Fairly Often is 1, Sometimes is 2, Almost Never is 3 and Never is 4. Individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress. After the sum was determined, it was categorized as follows: "Low Stress" if the score is 0-13, "Moderate Stress" for 14-26 and "High Perceived Stress" if scores ranging from 27-40.

For the third part, Readiness in Handling COVID-19 Scale score: the responses were scored as follows: Strongly disagree -0, Disagree – 1, Neutral – 2, Agree – 3, and Strongly Agree – 4. The sum of the score will be determined and will be categorized as follows: "Low Readiness" if the sum is 24 and below, "Average Readiness" if the sum is 25 to 34, "High Level of Readiness" if the sum is 35 to 40.

The relationship between the variables was analyzed as association of ordinal variables using mean, percentage, and Gamma statistical test. Interpretation of Gamma statistical test are as follows: "+/- 0.00 to +/- 0.24" showed no association or relationship, "+/-0.25 to +/- 0.49" as weak association/ relationship, "+/- 0.50 to +/- 0.74" and "+/- 0.75 to +/- 1.00" as moderate and strong association or relationship respectively. The hypothesis was tested at alpha = 0.05.

RESULTS AND DISCUSSIONS

Nurses' Level of Fear

The table shows data on the distribution of respondents according to fear in the first year of COVID-19 pandemic (March 2020 to March 2021). More than half of the target population (51.9%) experienced moderate fear in dealing with patients infected with COVID-19 while a little more than a quarter (28.4%) displayed low fear.

The acute scarcity of nurses, beds, and medical supplies, including personal protective equipment (PPE), as well as reviews suggest psychological alterations and fear of infection among nursing staff, are the main problems nurses are currently facing. Increase in the number of persons affected with COVID-19 poses a threat to healthcare.

Table 1
Distribution of Respondents according to Level of Fear

Fear	f	%
Low Fear	23	28.4
Moderate Fear	42	51.9
High Fear	16	19.8
Total	81	100.0

Nurses' Level of Stress

Almost 4 in every 5 respondents (81.5%) experienced moderate stress during their course of work battling with COVID-19. Alarmingly, there is about one (1) in every 10 nurses (13.6 %) who experienced high levels of stress.

This is supported by the study that explored fear and anxiety among nurses in Dubai and China. Nurses are making themselves available to do bedside interventions extensively to safeguard and ensure patient's safety and needs are employed. As they give their all to the fight against this illness, preserving their mental stability and strengthening their knowledge and skills to deal with the infection are equally crucial. Since nurses' daily tasks are already quite stressful, and may cause unfavorable results on their mental health. With the idea of acquiring the disease more likely because nurses are in the frontline to address such issues, this may cause fear and anxiety (Balay-odao et al., 2021). The significance of this effort lies in the fact that it transforms the debate about the psychological dimension of the pandemic. The data from the study of Ayling (2022) showed that increased stress, anxiety, and depression are not only a consequence of coexisting with the pandemic, but may be factors that increase the risk of contracting SARS-CoV-2.

Table 2
Distribution of Respondents according to Stress

Stress	f	%
Low Stress	4	4.9
Moderate Stress	66	81.5
High Stress	11	13.6
Total	81	100.0

Nurses' Level of Readiness in Handling COVID-19 Patients

Majority of the nurses in this private hospital (84%) showed a high level of readiness. Followed by nurses with average readiness at 9.9% of the total target population. However, it is noted that only minimal nurses (6.2%) are displaying low readiness when it comes to handling patients with COVID-19.

Many countries that first faced the pandemic made other regions become aware on how to

mitigate the effects of pandemic in the welfare system and healthcare workers (Alfieri et al., 2020; Armocida et al., 2020; Oliva et al., 2020). Nurses would be very prudent in every aspect of their work even though there will be unexpected crises arising.

They are readily prepared anytime to be able to provide care to the patients, even risking their own health to maintain the equilibrium of confined individuals.

Table 3
Distribution of Respondents according to Readiness

Readiness	f	%
Low Readiness	5	6.2
Average Readiness	8	9.9
High Readiness	68	84.0
Total	**81**	**100.0**

Nurses' Level of Fear and Readiness on Handling COVID-19 Patients

Majority of the respondents who have low level readiness showed a high level of fear (56.25%). On the other hand, respondents with a high level of readiness are those who have a low level of fear (34.78%). Inferential analysis using Gamma revealed -0.462, indicating an inverse moderate relationship between fear and readiness. The null hypothesis is rejected (p value of 0.003 < alpha level of 0.05). This means that as the level of fear increases, the readiness in handling COVID-19 patients of the staff nurses tend to decrease.

The importance of these aspects should serve as a wake-up call for everyone to provide sufficient assistance and identify the nursing needs globally, in order to ensure efficiency in combating the COVID-19 crisis with much more self-assurance. Additionally, in doing so, everyone may become more prepared to fight pandemics and to reevaluate problems while making strategic plans. Support the nurses, says Karger (2020), because they are the vital first line of defense in every emergency circumstance.

Table 4
Relationship of Fear and Readiness on handling COVID-19 patients

Fear	Readiness							
	Low Readiness (24 & below)		Average Readiness (25-34)		High Readiness (35-40)		Total	
	f	%	f	%	f	%	f	%
Low Fear (7-14)	3	13.05	12	52.17	8	34.78	23	100
Moderate Fear (15-25)	12	28.57	23	54.76	7	16.67	42	100
High Fear (26-35)	9	56.25	5	31.25	2	12.5	16	100
Total	**24**	**29.63**	**40**	**49.38**	**17**	**20.99**	**81**	**100**

Gamma = -0.462* p = 0.003

(*) significant at 0.05 p-value; (-) inverse relationship

Nurses' Level of Stress and Readiness on Handling COVID-19 Patients

There is a higher proportion of nurses with average readiness who had low-moderate stress (54.29%) compared to those with high stress (18.18%). Furthermore, almost a quarter (24.29%) of those who have high levels of readiness reported to have low to moderate stress. This trend is supported by the Gamma value of -0.893, indicating an inverse high correlation between stress and readiness of

nurses. The null hypothesis is rejected (p = 0.000 < alpha = 0.05). Therefore, it is concluded that as the level of stress increases, the level of readiness decreases. Low-moderate stress can lead to average-high readiness. It is congruent with the article of Lee, (2022), compared to the general community, all HCWs experienced equivalent stress from the current pandemic, regardless of the extent of their work.

Table 5

Relationship of Stress and Readiness on handling COVID-19 patients

Stress	Readiness							
	Low Readiness (24 & below)		Average Readiness (25-34)		High Readiness (35-40)		Total	
	f	%	f	%	f	%	f	%
Low to Moderate Stress (0-26)	15	21.42	38	54.29	17	24.29	70	100
High Stress (27-40)	9	81.82	2	18.18	0	0	11	100
Total	24	29.63	40	49.38	17	20.99	81	100

Gamma = -0.893*   p = 0.000

(*) significant at 0.05 p-value (-) inverse relationship

Conclusions

1. Nurses experienced fear in the care of patients with COVID-19.
2. Nurses are afraid of losing their lives because of COVID-19.
3. Nurses experienced moderate levels of stress in the care of patients with COVID-19.
4. Nurses have a high level of readiness in handling patients with COVID-19.
5. Fear has a great influence on the level of stress.
6. Fear has a huge impact on one's readiness in handling COVID-19 patients. The more nurses experience fear, the lesser they become ready and prepared for handling COVID-19 patients.
7. Stress also has a significant impact on how COVID-19 patients are treated since it renders nurses unable to provide bedside nursing care due to a lack of positive energy.

Recommendations

The following suggestions are made in light of the study's findings and conclusion:

1. Since there are three out of four nurses who show fear regarding COVID-19. And one (1) in every eight (8) nurses experiencing high levels of stress.

Thus, it is recommended that nurse managers and institutions should employ fear and stress debriefing techniques for frontline nurses to be able to make themselves ready prior to deployment to COVID-19 areas. It is also suggested that nurses should not be deployed instantly to these areas without proper training and interventions to prevent loss of enthusiasm in work for nurses, rooting for another nurse replacement in lieu of resigned personnel.

2. Since there are nurses who are not ready to handle COVID-19 patients, it could be a small number of nurses but with a great help once fully trained in COVID-19 response. It is recommended for the hospital administrators and managers that all nurses should be well trained and must attend continuing professional development seminars and training to be kept updated on all the healthcare settings.

3. For future researchers, it is recommended to conduct another study with regards to fear, stress, and readiness in other health emergencies aside from COVID-19 pandemic. It could be helpful if this could also be done to other situations that may arise for healthcare system preparedness schemes.

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Motivating Factors, Work Performance, and Job Satisfaction among Young Doctoral Business Management Degree Holders in Universities in China: Basis for Enhancement of Chinese Tenure Track System

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Abstract

This study aimed to determine the motivating factors, work performance and job satisfaction of the doctoral business management degree holders in universities in China under the tenure track system. The study was conducted from August to October of 2022. This study based on Hagedorn's theory of job satisfaction used a quantitative research design with 320 respondents who are the business management doctoral under the tenure track system. The motivating factors showed significant difference when the respondents were grouped according to graduate school type, school affiliated type, research/talent plan and funding rank. The result of the study revealed that both the personal profile and motivating factors would not influence the respondents' work performance. However, the personal profile and motivating factors have significant correlation with job satisfaction. Further, work performance showed no correlation with job satisfaction. The respondents care more about salary and self-actualization. They have low satisfaction in salary and self-actualization in all dimensions.

Keywords: *Motivating Factors, Work Performance, Job Satisfaction, Tenure Track System*

INTRODUCTION

Background of the Study

Universities play an essential role as the highest institution in China's education system. Universities are the loosely coupled high-level social organization of human resources. According to the 1982-2021 Statistical Bulletin of China's Education Development, China's number of business management degree holders has expanded rapidly. The number of business management students is rising as indicated in statistics that show the number of doctoral degrees holders increased by at least 9% every year except 1997. In 1999, the number of doctoral graduates in China exceeded 10,000 for the first time. In 2008, China surpassed the United States in the number of doctoral degree graduates, becoming the world's most considerable degree awarding country. But the number of teaching positions in Chinese universities has not increased so much, leading to increasingly fierce competition for teaching positions, especially for business management majors. In recent years, the personnel appointment system of China universities has been continuously reformed. With the increasing number of doctoral degree holders, many schools are becoming increasingly competitive for positions, with more rigid requirements for business management degree candidates in business management.

About 15%-42% of returning doctoral degree holders quit their jobs during the first employment period in different schools. At present, the research on the motivating factors, work performance and job satisfaction of business management teacher is still scarce. Studies related to teachers' work performance and job satisfaction in universities only focused on a particular group, such as female teachers, professors, etc. However, few studies focused on the business management teachers, and more studies are needed to pay attention to this group.

The tenure track system which originated in America is a mechanism by which young researchers, selected through an impartial, highly transparent screening process, can go through a review process to build up experience as independent researchers employed in official job positions before obtaining a permanent position. The system was introduced to China more than a decade ago by a group of top universities led by Tsinghua University and Beijing University. It was soon used for reference by many other universities in China because it can significantly stimulate business

management doctoral degree teachers' research motivation and publish articles with little investment. However, the tenure track system has undergone fundamental changes after being introduced into Chinese universities.

Many doctoral degree holders experience various psychological problems during the first employment of the tenure track system period after entering universities, and some even make extreme behaviors, which makes people think deeply. For example, the murder case of Jiang Wenhua from Fudan University and the suicide case of Tu Xuxin from Zhejiang University (news.sina.2009). Both of whom had doctoral degrees, suffered significant setbacks in their first employment period. How to avoid the occurrence of similar tragic events is the significance of this study.

This paper explored the motivating factors of job satisfaction, and analyzed the relationship of different factors on work performance and job satisfaction as the basis for the improvement of tenure track system.

Objectives of the Study

This study aimed to determine the motivating factors, work performance, and job satisfaction among young doctoral business management degree holders under the tenure track system in Universities in China.

Specifically, this study aimed to:

1. Describe the profile of respondents in terms of sex, age, graduate school attended, school-affiliated, talent/research, funding rank.

2. Describe the most predominant motivating factors- work itself, working condition, interpersonal relationship, personal life, the salary, and self-actualization among the respondents taken as an entire group;

3. Describe the level of intensity of the motivating factors taken as an entire group and classified according to (a) sex, (b) age, (c) graduate school attended, (d) school affiliated, (e) talent/research, and (f) funding rank;

4. Describe the work performance among the young business management degree holders in terms of teaching attitude, teaching content, teaching method, teacher's ethics;

5. Describe the level of job satisfaction of young business management degree holders.

6. Determine if there is significant difference in motivating factors when respondents are grouped according to the profiles of respondents.

7. Determine if there is significant difference in the work performance when respondents are grouped according to their profiles.

8. Determine if there is significance of the differences in job satisfaction when respondents are grouped according to their profiles.

9. Determine if there is significant correlation between the motivating factors and work performance.

10. Determine if there is significant correlation between motivating factors and job satisfaction.

11. Determine if there is significant correlation between work performance and job satisfaction.

12. Propose measures for the improvement of the Chinese Tenure Track System.

Theoretical and Conceptual Framework

This study was anchored on Hagedorn's Theory that identified motivators as follows: the work itself, working condition, interpersonal relationship, personal life, the salary, and self-actualization (Hagedorn L S. 2000).

In this study, the business management doctoral degree teachers work in new units after graduation, which is similar to considering the trigger factors in this theoretical model, namely the change of life or work environment. Therefore, this study mainly refers to the Hagedorn's factor theory and job satisfaction.

The antecedent variables are the profile of management doctoral degree teachers in universities in China which include the sex, the age when the doctoral degree was attained, the graduate school attended, school affiliated, talent project funding, and rank. Independent variables are the motivating factors that include the work itself, working conditions, interpersonal relationships, salary, personal life, and self-actualization. Moderating variables include work performance in teaching attitude, teaching content, teaching method, and teachers' ethics. The dependent variable is job satisfaction.
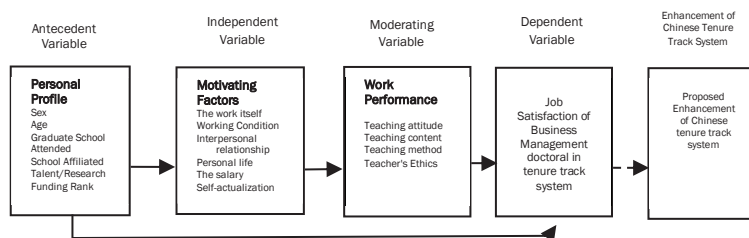
Figure 1. Research Paradigm Illustrating the Hypothesized Interplay among Study Variables

Significance of the Study

The results of this study would be beneficial to the following:

For the doctoral degree holders. This paper focused on the motivating factors, work performance and job satisfaction of doctoral degree teachers under the tenure track system, and the result of the study will help ensure the stability of the university talent team, improve the personal initiative and creativity of teachers, and provide scientific suggestions for the development and management of the new generation of teachers.

For the local government. After the introduction of talents, whether the local government can give full picture as to the advantages of business management doctoral degree holders, whether the talents can stay for a long time, drive the development of local scientific and technological innovation, promote the international cooperation of universities, promote the internationalization of higher education, and enhance the global academic discourse power of various professional fields in China.

For the University of China. Business management doctoral degree holder students are looking for development platform that better matches their personal needs, the growth and development of teachers cannot be separated from the cultivation of universities. The results of this study will provide basis for the enhancement of the track system that will be mutually beneficial and win-win between universities and teachers.

For the tenure track system in China. The result of this study will give decision makers insights to come up with excellent selection system.

Scope and Limitation of the Study

This paper focused on the relationship of motivating factors, work performance and job satisfaction among Business Management doctoral degree holders under the tenure track system in university in China. This study was conducted from August to November, 2022. The research sample is only limited to doctoral degree holders who have signed tenure track contracts with the universities in China. The study used "Questionnaire Star" platform with 320 respondents computed from a population of 1600. The questionnaire was made available online and sent by email or 'WeChat' platform. SPSS version 26 was used for data statistical and analysis.

REVIEW OF RELATED LITERATURE AND STUDIES

Related literature

The Motivating factors

Work itself. Chen Yunying et al., found that the work itself plays a significant role in influencing teachers' job satisfaction (Chen yunying, 1994).

Working condition

Working conditions usually refer to the size of the work environment workload, work required equipment, etc. Working conditions are the main factors affecting employee job dissatisfaction and performance (Tharp, 1991). Similarly, Weaver and Wilhoit found in a national survey that working conditions had a small effect on job satisfaction but a more significant impact on job dissatisfaction (Weaver and Wilhoit, 1996).

Personal life

Scholar Jason believes that the aspects of personal life that affect job satisfaction include the change in life stage, the change in a family or personal situation, the shift from the workplace to another organization, and the evolution of mood or emotional state(Johnson,2010). Hagedorn believes that these changes act as triggers for job satisfaction, affecting job satisfaction and making employees gradually accept the organization or leave it (Hagedorn, 2000).

Scholar Gao Luan (Gao Luan, 2015) conducted a survey on the job satisfaction of young teachers in universities and colleges in Beijing, carefully analyzed the influence of personal profile such as age, gender, professional title, working conditions, graduated university and research funding on the job satisfaction of faculty, and believed that these factors can significantly affect the job satisfaction of teachers.

Interpersonal relationships

Positive relationships are critical to job satisfaction, teamwork, and work performance (Collins, J. C. 2009).

The salary

Ismail's research found that job satisfaction is higher when employees think pay is adequate (Ismail, 2011).

Self-actualization

Self-actualization is defined as the desire to meet one's own wants, realize one's ideas and desires, develop one's abilities, and achieve goals that are commensurate with one's ability. According to Feng Bolin's research, teachers have a high degree of satisfaction with self-actualization. Even in the case of hard work and low income, teachers still show a positive tendency towards self-actualization at work (Feng Bolin. 2007).

Job satisfaction

Based on job satisfaction, some scholars describe teachers' job satisfaction as the attitude that teachers still stick to their jobs under different circumstances. Some scholars describe teachers' job satisfaction as teachers' self-evaluation of their work and their opinions on the quality of their work. In addition, some scholars believe that teachers' overall job satisfaction refers to teachers' comprehensive evaluation of their work (Armour S Y, 2014).

METHODOLOGY

This study adopted the survey-correlational research. It is an appropriate method used for collecting, processing and analyzing data on the difference and correlation of the motivating factors, work performance and level of job satisfaction based on the personal profile of respondents in terms of sex, age, graduate school attended, school-affiliated, talent/research, funding rank. Likewise, it will facilitate the identification of the most predominant motivating factors among the respondents.

The target respondents were limited to business management doctoral who underwent the tenure track test. Probability sampling is a sampling method in which a researcher randomly selects objects in such a way that the probability of selecting each member of the population is known. The sample size is 320 for a population of 1600 business management doctoral, with the margin of error of 0.05. Then multi-stage sampling is used to determine numbers of each university according to the percentage. All the respondents' information could be found on the website of each school, most of them have email address. The self-constructed questionnaire was composed for data gathering. It consisted of three parts. Part I: The personal profile of respondents in terms of sex, age, graduate school attended, school-affiliated, talent/research, funding rank; Part II: The motivating factors in terms of work itself, working condition, interpersonal relationship, personal life, the salary, and self-actualization; Part III: The work performance which includes the Teaching attitude, Teaching content, Teaching method, and Teacher's Ethics; Part IV: The level of job satisfaction of young business management degree holders. This paper used 5 points Likert Scale. The reliability test Cronbach's alpha coefficient of the questionnaire showed that each dimension of the questionnaire have good reliability. The researcher-made questionnaire was validated by three experts and pilot-testing was done. With the help of the "Questionnaire Star" platform, questionnaires were sent out in batches by email. The following statistical tools were used to present, analyze and interpret the data in this study: for the descriptive analysis, the frequency distribution and percentages were used to present data on the personal profile of the respondents, ranks of predominant motivating factors, degree of intensity of motivating factors- work Itself, working condition, interpersonal relationship, personal life, the salary, and self-actualization, level of work performance, and level of job satisfaction of young doctoral business management degree holders in universities.

Statistical tools were used to analysis the personal profile of respondents with motivating factors, work performance, and job satisfaction. The inferential analysis was done using t-test and Anova. Ethics clearance was secured to ensure that ethical considerations were duly complied.

RESULTS AND DISCUSSIONS

The survey included a nearly equal representation of males (51%) and females (49%), indicating a balanced sample in terms of gender. The majority of respondents fall within the age range of 30-39 (75%), with the highest percentage being in the 35-39 category (45%). This suggests that the sample predominantly consists of mid-career professionals. There are 211 universities were attended by a sizable percentage of the respondents (42%), demonstrating a sizable representation of respondents from elite colleges. Furthermore, 50% of them attended institutions other than 211, demonstrating a variety of educational backgrounds.

In comparison to 65% of respondents who were connected to non-211 universities, 35% of respondents were affiliated with 211 universities.

Most respondents did not indicate if they were involved with talent or research programs. China Ten Talents Plan had an excessively high representation (16652) among those who were specified, indicating a significant presence in the sample.

According to the majority of respondents (68%) who said they had a funding rank, a sizable percentage of people receive financing for their research or project.

Overall, this table gives a thorough summary of the respondents' racial and educational backgrounds. It's crucial to take these conclusions into account when interpreting the study's findings because they may have an impact on participants' opinions and experiences.

Table 1

Distribution of Respondents according to their Profile

Category	f	%
Entire group	320	100
Sex		
Male	164	51
Female	156	49
Age		
29 and below	62	19
30-34	95	30
35-39	145	45
40 and above	18	6
Graduate School Attended		
211 University	144	42
211 non university	186	50
School Affiliated		
211 university	113	35
Non 211 university	207	65
Talent/research		3
China Hundred Talents Plan	10	
China Thousand Talent Plan	37	12
China Ten Talents Plan	16652	
Others		
Funding Rank	107	33
With Funding Rank	216	68
Without Funding Rank	104-32	
	104	32

Table 2

Degree of Intensity of Motivating Factors Among the Respondents Taken as an Entire Group and Classified According to Sex, Age, Graduate School Attended, School Affiliated, Talent/Research, and Funding Rank

Category (N = 320)	Work Itself			Working condition			Interpersonal relationship			Personal life			The salary			Self-actualization		
	SD	M	Rank	SD	M	Rank	SD	M	Rank	SD	M	Rank	SD	M	Rank	SD	M	Rank
Entire group	0.59	3.35	3.5	0.41	3.70	1	0.54	3.69	2	0.69	3.13	5	0.59	3.35	3.5	0.85	2.30	6
Sex																		
Male	0.59	3.27	4	0.46	3.63	2	0.53	3.70	1	0.71	3.11	5	0.65	3.28	3	0.85	2.37	6
Female	0.58	3.43	3	0.34	3.77	1	0.55	3.68	2	0.68	3.15	5	0.51	3.43	4	0.86	2.23	6
Age																		
<30	0.51	3.37	3	0.47	3.73	2	0.45	3.74	1	0.69	3.25	5	0.57	3.29	4	0.85	2.36	6
30 to 35	0.57	3.43	4	0.38	3.73	2	0.48	3.76	1	067	3.16	5	0.45	3.51	3	0.81	2.34	6
36 to 40	0.64	3.22	3	0.42	3.63	1	0.63	3.60	2	0.71	3.02	5	0.70	3.18	4	0.89	2.26	6
over 40	0.62	3.39	3	0.36	3.80	1	0.61	3.52	2	0.74	3.05	5	0.55	3.36	4	1.03	1.97	6
Graduate school Attended																		
211	0.59	3.42	4	0.38	3.79	1	0.48	3.75	2	0.67	3.37	5	0.55	3.50	3	0.86	2.62	6
Non-211	0.58	3.30	4	0.42	3.63	2	0.57	3.65	1	0.66	2.96	5	0.59	3.24	3	0.77	2.07	6
School affiliated																		
211	0.51	3.58	3	0.33	3.87	1	0.42	3.75	2	0.63	3.40	4	0.45	3.49	5	0.78	2.34	6
Non-211	0.59	3.22	3	0.42	3.61	1	0.59	3.66	2	0.68	2.98	5	0.64	3.27	4	0.89	2.28	6
Talent/research																		
Hundred Talents Plan	0.19	4.06	2	0.22	4.22	1	0.32	4.04	3	0.52	3.77	5	0.16	4.00	4	0.67	3.13	6
Thousand Talents Plan	0.73	6.57	3	0.60	3.71	2	0.41	3.74	1	0.65	3.40	5	0.83	3.41	4	0.90	2.45	6
Ten thousand Talents Plan	0.53	3.55	4	0.35	3.72	2	0.50	3.79	1	0.64	3.17	5	0.51	3.39	3	0.80	2.42	6
Others Plan	0.58	3.21	4	0.39	3.61	1	0.59	3.49	2	0.72	2.91	5	0.59	3.49	2	0.83	1.99	6
Funding rank																		
With	3.46	0.57	3	0.42	3.77	2	0.48	3.81	1	0.63	3.29	5	0.57	3.44	4	0.83	2.51	6
Without	3.12	0.57	4	0.37	3.57	1	0.57	3.46	2	0.70	2.80	5	0.58	3.16	3	0.74	1.88	6

The table 3 shows that teaching ethics have highest mean value in motivating factors (Sex, Age, Graduate, School Attended, School Affiliated, Talent/Research, and Funding Rank) means respondents always keep high moral standards. Traditional Chinese culture has always required of teachers' work performance (Li Chundi 2022). The motivating factors (Sex, Age, Graduate, School Attended, School Affiliated, Talent/Research, and Funding Rank) not influenced the respondents work performance under the tenure track system. Respondents always keep very good work performance. This also confirms that Dr.Zhang Shuang's study of teacher performance under the tenure track system in Texas (Zhang Shuang 2019).

Table 3

Level of Work Performance among the Respondents Taken as an Entire Group and Classified According to Sex, Age, Graduate School Attended, School Affiliated, Talent/Research, and Funding Rank

Category (N = 320)	Teaching attitude			Teaching content			Teaching method			Teaching ethics		
	SD	M	Description	SD	M	Description	SD	M	Description	SD	M	Description
Entire group	0.30	4.16	Very Good	0.33	4.19	Very Good	0.31	4.17	Very Good	0.38	4.24	Outstanding
Sex												
Male	0.31	4.18	Very Good	0.35	4.20	Very Good	0.33	4.17	Very Good	0.40	4.26	Outstanding
Female	0.28	4.14	Very Good	0.30	4.18	Very Good	0.30	4.17	Very Good	0.36	4.22	Outstanding
Age												
<30	0.24	4.13	Very Good	0.27	4.15	Very Good	0.29	4.17	Very Good	0.29	4.15	Very Good
30 to 35	0.30	4.14	Very Good	0.31	4.17	Very Good	0.31	4.17	Very Good	0.37	4.22	Outstanding
36 to 40	0.30	4.17	Very Good	0.34	4.20	Very Good	0.31	4.17	Very Good	0.40	4.27	Outstanding
over 40	0.37	4.32	Outstanding	0.33	4.19	Outstanding	0.40	4.14	Very Good	0.49	4.44	Outstanding
Graduate school Attended												
211	0.30	4.16	Very Good	0.34	4.18	Outstanding	0.32	4.16	Very Good	0.35	4.21	Outstanding
Non-211	0.30	4.16	Very Good	0.32	4.19	Very Good	0.31	4.18	Very Good	0.40	4.27	Outstanding
School affiliated												
211	0.28	4.19	Very Good	0.33	4.22	Outstanding	0.29	4.19	Very Good	0.37	4.25	Outstanding
Non-211	0.31	4.14	Very Good	0.33	4.17	Very Good	0.33	4.16	Very Good	0.38	4.24	Outstanding
Talent/research												
Hundred Talents Plan	0.33	4.30	Outstanding	0.33	4.30	Outstanding	0.18	4.23	Outstanding	0.34	4.27	Outstanding
Thousand Talents Plan	0.29	4.22	Very Good	0.34	4.21	Very Good	0.38	4.14	Very Good	0.33	4.25	Very Good
Ten thousand Talents Plan	0.33	4.20	Very Good	0.36	4.24	Outstanding	0.31	4.20	Very Good	0.41	4.28	Outstanding
Others Plan	0.24	4.11	Very Good	0.24	4.12	Very Good	0.29	4.13	Very Good	0.34	4.21	Outstanding
Funding rank												
With	0.32	4.19	Very Good	0.35	4.21	Outstanding	0.32	4.19	Very Good	0.40	4.26	Outstanding
Without	0.24	4.11	Very Good	0.26	4.13	Very Good	0.29	4.13	Very Good	0.33	4.21	Outstanding

The table 4 shows that the respondents who have China Hundred Talents Plan, China Thousand Talents Plan or funding rank support have higher satisfaction in work itself, working condition, interpersonal relationship, personal life, salary, and self-actualization. The respondents who have others talents plan support or didn't have talents plan support have lower job satisfaction. Especially in salary, and self-actualization. This confirmed that Chen Min's research on talent programs in China (Chen Min 2019). Whether or not have higher talents plan support in China could significantly influenced the respondents' job satisfaction.

Table 4

Level of Job Satisfaction among the Respondents Taken as an Entire Group and Classified According to Sex, Age, Graduate School Attended, School Affiliated, Talent/Research, and Funding Rank

Category (N = 320)	Work itself			Working condition			Interpersonal relationship			Personal life			The salary			Self-actualization		
	SD	M	Desc	SD	M	Desc	SD	M	Desc	SD	M	Desc	SD	M	Desc	SD	M	Desc
Sex																		
Male	0.66	3.35	Good	0.77	3.22	Good	0.80	3.32	Good	0.86	3.09	Good	0.87	2.43	Fair	0.92	2.23	Fair
Female	0.74	3.31	Good	0.72	3.44	Very Good	0.81	3.36	Good	0.79	2.88	Good	0.87	2.42	Fair	0.90	2.07	Fair
Age																		
<30	0.71	3.23	Good	0.69	3.40	Good	0.78	3.31	Good	0.84	2.92	Good	0.84	2.44	Fair	0.84	1.92	Fair
30 to 35	0.69	3.31	Good	0.73	3.29	Good	0.81	3.36	Good	0.85	2.92	Good	0.89	2.37	Fair	0.97	2.16	Fair
36 to 40	0.71	3.35	Good	0.79	3.34	Good	0.83	3.31	Good	0.81	2.97	Good	0.87	2.43	Fair	0.87	2.14	Fair
over 40	0.59	3.67	Very Good	0.79	3.17	Good	0.62	3.56	Very Good	0.58	3.72	Very Good	0.85	2.61	Fair	0.73	2.94	Good
Graduate school Attended																		
211	0.64	3.39	Good	0.76	3.33	Good	0.82	3.37	Good	0.82	3.17	Good	0.93	2.63	Good	0.95	2.37	Fair
Non-211	0.74	3.29	Good	0.75	3.33	Good	0.79	3.32	Good	0.82	2.85	Good	0.79	2.28	Fair	0.85	1.99	Fair
School affiliated																		
211	0.61	3.50	Very Good	0.58	3.49	Very Good	0.64	3.42	Very Good	0.78	3.27	Good	0.88	2.56	Fair	0.89	2.21	Fair
Non-211	0.73	3.24	Good	0.82	3.24	Good	0.88	3.29	Good	0.82	2.84	Good	0.86	2.35	Fair	0.92	2.12	Fair
Talent/research																		
Hundred Talents Plan	0.28	4.00	Very Good	0.32	3.90	Very Good	0.00	4	Very Good	0.32	3.9	Very Good	0.52	3.6	Very Good	0.74	3.1	Good
Thousand Talents Plan	0.68	3.35	Good	0.79	3.38	Good	0.69	3.41	Very Good	0.78	3.19	Good	0.86	2.62	Good	0.93	2.49	Fair
Ten thousand Talents Plan	0.63	3.49	Very Good	0.76	3.34	Good	0.84	3.41	Very Good	0.84	3.07	Good	0.85	2.45	Fair	0.83	2.26	Fair
Others Plan	0.72	3.01	Good	0.73	3.23	Good	0.77	3.14	Good	0.77	2.7	Good	0.82	2.42	Fair	0.85	1.78	Poor
Funding rank																		
With	0.61	3.54	Very Good	0.76	3.38	Good	0.79	3.46	Very Good	0.80	3.18	Good	0.88	2.61	Good	0.87	2.39	Fair
Without	0.68	2.89	Good	0.73	3.21	Good	0.77	3.09	Good	0.75	2.59	Fair	0.72	2.05	Fair	0.79	1.65	Poor

The table 5 shows that graduate school attended could influenced respondents' job satisfaction, especially in salary and self-actualization. The doctoral graduates from 211 universities have more competitive than graduates from non-211 universities in China. '211' university Similar to the American Ivy League university. Graduates from 211 universities could get better personal life, the salary

and self-actualization (Yan Weifang 2016). '211' university could supply good salary level and broader space for development. '211' university could attract more talents addition than 'Non-211' university in China. Mostly respondents have research funding support could get better salary and self-actualization, better interpersonal relationship, personal life and broader development space.

Table 5a

T-test Results for the Differences in the Degree of Intensity of Motivating Factors among the Respondents Classified According to Sex, Graduate School Attended, School Affiliated, and Funding Rank, School Attended, School Affiliated, and Funding

Category (N=320)	Work Itself				Working Condition				Interpersonal Relationship			
	M	t-value	df	2-tail prob	M	t-value	df	2-tail prob	M	t-value	df	2-tail prob
Sex												
Male	3.35	2.41	164	0.559	3.22	3.02	164	0.058	164	0.36	164	0.641
Female	3.31		156		3.44		156		156		156	
Graduate School Attended												
211	3.39	1.231	134	0.219	3.33	0.005	134	0.996	3.37	0.532	134	0.595
Non-211	3.29		186		3.33		186		3.32		186	
School Affiliated												
211	3.50	3.14	113	0.052	3.49	2.816	113	0.08	3.42	1.293	113	0.197
Non-211	3.24		207		3.24		207		3.29		207	
Funding Rank												
With	3.54	8.568	216	0.000	3.38	1.932	216	0.054	3.46	3.969	216	0.000
Without	2.89		104		3.21		104		3.09		104	

Table 5b

Category (N=320)	Personal Life				The Salary				Self-Actualization			
	M	t-value	df	2-tail prob	M	t-value	df	2-tail prob	M	t-value	df	2-tail prob
Sex												
Male	3.09	0.49	164	0.053	2.43	2.25	164	0.969	2.23	1.42	164	0.128
Female	2.88		156		2.42		156		2.07		156	
Graduate School Attended												
211	3.17	3.43	134	0.001	2.63	3.598	134	0.000	2.37	3.663	134	0.000
Non-211	2.85		186		2.28		186		1.99		186	
School Affiliated												
211	3.27	4.56	113	0.000	2.56	2.028	113	0.043	2.21	0.905	113	0.366
Non-211	2.84		207		2.35		207		2.12		207	
Funding Rank												
With	3.18	6.353	216	0.000	2.61	5.647	216	0.000	2.39	7.291	216	0.000
Without	2.59		104		2.05		104		1.65		104	

The table 6 shows that the working condition have a significant difference intensity degree of motivating factors among the respondents classified according to age. The younger respondents more emphasize on working condition. Enhance work condition could attract more young business management doctoral join in. Work itself, Interpersonal relationship, personal life, salary, and self-actualization were no significant difference intensity degree of motivating factors among the respondents classified according to age.

Table 6

One-Way ANOVA Results for the Differences in the Degree of Intensity of Motivating Factors among the Respondents Classified According to Age

Source of Variation	Sum of Suares			df			Mean Square			
	Between groups	Within groups	Total	Between groups	Within groups	Total	Between groups	Within groups	F	Sig.F
Work itself	2.552	108.367	110.919	3	316	319	0.851	0.343	2.481	0.061
Working condition	1.996	51.444	53.440.	3	316	319	0.665	0.163	4.088	0.007
Interpersonal relationship	1.190	90.635	91.825	3	316	319	0.397	0.287	1.383	0.248
Personal life	0.919	152.383	153.302	3	316	319	0.306	0.482	0.635	0.593
Salary	2.026	109.108	110.133	3	316	319	0.675	0.342	1.974	0.118
Self-actualization	4.844	227.689	232.533	3	316	319	1.615	0.721	2.241	0.083

The table 7 shows that the sig. F of work itself, working conditions, interpersonal relationships, personal life, talent/research, the Salary, and Self-actualization are less than 0.05. work itself, working conditions, interpersonal relationships, personal life, Talent/research, Salary, and Self-actualization were significant different intensity degree between groups according to talent/research plan. Weather could get the Talent/research plan support, what kinds of talent/research plan the respondents can get were significantly influenced the faculty working enthusiasm and job satisfaction(Lin Yaqiong, 2018).

Table 7
Level of Job Satisfaction among the Respondents Taken as an Entire Group and Classified According to Sex, Age, Graduate School Attended, School Affiliated, Talent/Research, and Funding Rank

Source of Variation	Sum of Suares			df			Mean Square			
	Between groups	Within groups	Total	Between groups	Within groups	Total	Between groups	Within groups	F	Sig.F
Work itself	9.000	101.920	110.919	3	316	319	3.000	0.323	9.301	<0.001
Working condition	3.606	49.834	53.440	3	316	319	1.202	0.158	7.622	<0.001
Interpersonal relationship	7.484	84.341	91.825	3	316	319	2.495	0.267	9.346	<0.001
Personal life	11.975	141.327	153.302	3	316	319	3.992	0.447	8.926	<0.001
Salary	6.500	103.634	110.133	3	316	319	2.167	0.328	6.606	<0.001
Self-actualization	20.527	212.006	232.533	3	316	319	6.842	0.671	10.199	<0.001

The table 8 shows that the dimensions of teaching attitude, teaching content, teaching method and teacher's ethics have no significant differences work performance according to sex, graduate school type, graduate school type and broader space for development. This mean the sex, graduate school attended, school affiliated type, and funding rank not influenced the respondents' work performance. No matter what personal profile, the faculty in university in China always excellent work performance (Guo Shujian, 2020).

Table 8
t-test Results for the Differences in the Level of Work Performance among the Respondents Classified According to Sex, Graduate School Attended, School Affiliated, and Funding Rank

Category (N = 320)	Teaching attitude				Teaching content				Teaching method				Teaching ethics			
	M	t-value	df	2-tail prob	M	t-value	df	2-tail prob	M	t-value	df	2-tail prob	M	t-value	df	2-tail prob
Sex																
Male	4.18	0.976	164	0.33	4.20	0.653	164	0.514	0.33	0.249	164	0.804	4.26	1.09	164	0.276
Female	4.14		156		4.18		156		0.30		156		4.22		156	
Graduate school Attended																
Male	4.16	0.12	134	0.905	4.18	0.158	134	0.874	4.16	0.531	134	0.596	4.21	1.41	134	0.16
Female	4.16		186		4.19		186		4.18		186		4.27		186	
School affiliated																
Male	4.19	1.49	113	0.136	4.22	1.362	113	0.174	4.19	0.875	113	0.382	4.25	0.315	113	0.753
Female	4.14		207		4.17		207		4.16		207		4.24		207	
Funding rank																
Male	4.19	2.433	216	0.116	4.21	2.217	216	0.127	4.19	1.483	216	0.139	4.26	1.051	216	0.294
Female	4.14		104		4.13		104		4.13		104		4.21		104	

The table 9 shows that the respondents have no different work performance in teaching attitude, teaching content, teaching method and teaching ethics according to age. The respondents' work performance were very well in all age grade. The age not influenced the respondents work performance (Meng Qingfei, 2014).

Table 9
One-Way ANOVA Results for the Differences in the Level of Work Performance among the Respondents Classified According to Age

Source of Variation	Sum of Suares			df			Mean Square			
	Between groups	Within groups	Total	Between groups	Within groups	Total	Between groups	Within groups	F	Sig.F
Teaching attitude	0.575	27.886	28.462	3	316	319	0.192	0.088	2.173	0.091
Teaching attitude	0.286	34.019	34.306	3	316	319	0.095	0.108	0.886	0.449
Teaching method	0.021	31.219	31.24	3	316	319	0.007	0.099	0.072	0.975
Teachers' ethics	1.453	44.524	45.978	3	316	319	0.484	0.141	3.438	0.057

According to the mean value of table 10, the respondents who have China hundred talents plan, China thousand talents plan and China ten thousand talents plan support have significant higher work performance than respondents who have others talents plan or didn't have talents plan support. The research/talent plan could influenced the respondents work performance, especially to those only have others talents plan or didn't have talents plan support (Guo Shujian, 2020).

Table 10

One-Way ANOVA Results for the Differences in the Level of Work Performance among the Respondents Classified According to Talent/Research

Source of Variation	Sum of Suares			df			Mean Square			
	Between groups	Within groups	Total	Between groups	Within groups	Total	Between groups	Within groups	F	Sig.F
Teaching attitude	0.803	27.659	28.462	3	316	319	0.268	0.088	3.058	0.029
Teaching attitude	1.382	32.924	34.306	3	316	319	0.461	0.104	4.421	0.005
Teaching method	0.347	30.893	31.240	3	316	319	0.116	0.098	1.183	0.316
Teachers' ethics	0.671	45.307	45.978	3	316	319	0.224	0.143	1.559	0.199

The table 11 shows that respondents who got research funding support have greater satisfaction than didn't have support. Which damages the objective basis for the equitable and free development of teachers in the system. This result also proved that Scholar Liu Jia through a series of studies found that without funding rank support could significantly reduce the faculty job motivation and job satisfaction (Liu Jia, 2022).

Table 11

T-test Results for the Differences in the Level of Job Satisfaction among the Respondents Classified According to Sex, Graduate

Compared Groups	M	t-value	df	2-tail prob
Sex				
Male	2.94	0.325	318	0.746
Female	2.91			
Graduate school type				
211	3.04	2.719	318	0.007
No-211	2.84			
School affiliated				
211	3.07	3.02	318	0.003
No-211	2.85			
Funding rank				
With	3.09	7.17	318	0.000
Without	2.58			

The table 12 proved that scholar Herzberg about the age would influenced the job satisfaction (Alshmemri, M, 2017). As the age grow, the titles of university teachers were promoted, their income growth mostly, their opportunities increased mostly, and their job satisfaction was growth. the table 12 also show that The talent program selected candidates can not only get allocated resources but also spill over to the disciplinary universities and other levels, becoming an essential goal of the development of relevant organizations, and also get allocated academic reputation. Weather could get the Talent/research plan support, What kinds of talent/research plan the respondents can get were significantly influenced the faculty working enthusiasm and job satisfaction (Lin Yaqiong, 2018).

Table 12

One-Way ANOVA Results for the Differences in the Level of Job Satisfaction among the Respondents Classified According to Age and Talent/Research

Source of Variation	df	Sum of Squares	Mean Squares	F Ratio	F Probability
Age					
Between Groups	3	2.766	0.922	2.237	0.044
Within Groups	316	130.258	0.412		
Total	319	133.024			
Between Groups	3	15.111	5.037	13.499	0.000
Within Groups	316	117.914	0.373		
Total	319	133.024			

The table 13 shows that interpersonal relationship (p<0.001) could influenced respondents' work performance. The good interpersonal relationship, could enhanced the respondents' work performance. Based on this findings, there is enough evidence to reject the null hypothesis (H04) according to interpersonal relationship.

Table 13

Correlations among the Respondents' Motivating Factors, Work Performance, and Job Satisfaction

Variables N = 320	Work Performance		Overall Satisfaction	
	r	r prob	r	r prob
Motivating Factors				
The work itself	0.106	0.057**	0.000	0.524**
Working condition	0.149	0.081**	0.000	0.412**
Interpersonal relationship	0.000	0.197**	0.000	0.657**
Personal life	0.233	0.067**	0.000	0.583**
The salary	0.751	0.018**	0.000	0.411**
Self-actualization	0.753	0.018**	0.000	0.461**

The table 14 shows that there is not significant relationship between self-actualization and job satisfaction (p=0.7.22).This mean that work performance could not influenced job satisfaction. No matter what satisfaction of respondents, they all keep high work performance (Chamundeswari, S. 2013). Based on this findings, there is enough evidence to accept the null hypothesis (H05) according to self-actualization.

Table 14

Correlations between the Respondents' Work Performance and Job Satisfaction

Variables N = 320	Job Satisfaction	
	r	r prob
Work Performance	0.02**	0.722

FINDINGS AND CONCLUSIONS

Findings

1. Most respondents were satisfied to working condition and interpersonal relationship in university in China, but most of them were not satisfied to salary and self-actualization according to age or sex.

2. The respondents who graduate from '211' university have higher satisfaction than graduate from 'non-211' university in working condition, personal life, the salary, and self-actualization.

3. School affiliated type could influenced respondents' job satisfaction in salary and self-actualization. '211' university could supply good salary level and broader space for development.

4. Respondents who have others talents plan or didn't have talents plan support have significant low satisfaction compare to China hundred talents plan, China thousand talents plan and China ten thousand talents plan support. The research/talent plan was significant influenced the respondents job satisfaction especially to those didn't have talents plan support.

5. Whether or not have research funding support also could significantly influenced the respondents' job satisfaction. Mostly respondents have research funding support could get better salary and self-actualization, better interpersonal relationship, personal life and broader development space.

6. The personal profile (sex, age, graduate school attended, school-affiliated, talent/research, funding rank) not influenced the respondents' work performance. The personal profile have no significant relationship with work performance.

7. The motivating factors (work itself, working condition, interpersonal relationship, personal life, the salary, and self-actualization) have no significant relationship with respondents' work performance.

8. The motivating factors (The work itself, working condition, interpersonal relationship, personal life, the salary, and self-actualization) have significant relationship with respondents' job satisfaction.

9. The job satisfaction have no significant relationship with respondents' work performance. No matter what respondents' satisfaction, they all keep high work performance.

10. Age could significantly influenced the respondents job satisfaction, as the age growth, their job satisfaction was growth.

Conclusions

1. Most of university in China could supply good working condition, such as, most university could provide faculties' good conducting experiments, good career opportunities for business management teachers. Most university could provide good office conditions and sports facilities such as library materials, faculty lounge, offices, etc.

2. With the development of the times, the working pressure and life pressure were increasing, the doctoral living condition not as good as imagine, and the young business management doctoral also care about their personal life (Li Tang.2015). Like weather the university could supply good development opportunities under the Tenure Track System. Weather the university could provide good

promotion to faculty with doctoral degree. Weather the university could provide housing benefits for faculty with doctoral. Does the faculty have free time for rest, recreation and other related purposes. Base on the rank of the motivating factors, most respondents worried about their self-actualization and their personal life.

3. Base on the questionnaire, 78.3% respondents agree they have good relationship with their leaders and their faculty colleagues. 75.9% respondents amenable to their school leadership and management styles. 58.8% respondents agree they good teamwork.

4. The respondents who graduate from '211' university have higher competitiveness. Easier to get good faculty in China university. Graduate from 'Non-211' university respondents should pay more time and effort to get good faculty

5. "Non- 211" university graduates doctoral suffered employment discrimination, which is mainly reflected in that most employers, companies and government departments only recruit "211" university graduates in the recruitment process. Some regulations give priority to graduates from "211" universities; others stipulate higher treatment for graduates from "211" universities. These phenomena were "unique to China". There is not a single world-class university in the world that relies on a government "plan". All universities grow through market competition. "211" universities were typical examples of administrative departments interfering in university education.

6. An obvious defect in the selection mechanism of the national "Project 211" is the solidification of identity. As there is no exit mechanism for the project, once a university selected as a "211" university, it will retain its name forever. Without an opt-out mechanism has resulted in a "211" university's fixed status. This kind of mechanism is easy to cause the lack of competition among the selected universities, and at the same time hit the enthusiasm of the unselected universities to develop.

7. The respondents who didn't have China talents support always get into low satisfaction compare to who have China talents support. University should pay attention to the doctoral who have others china talents plan support or did not have talents plan support, especially in self-actualization.

8. The doctoral who have research funding support have higher satisfaction than who didn't have research funding support in all dimensions. University should pay more attention to the doctoral who without research funding support, especially in self-actualization. To help them obtain research funding support from private enterprises, government organizations, non-governmental organizations and crowdfunding.

9. No matter what personal profile (sex, age, graduate school attended, school-affiliated, talent/research, funding rank), the respondents always have good or excellent work performance. Means the job satisfaction have no significant connection with work performance.

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Organizational Culture and Commitment and Job Satisfaction among Employees in Insurance Companies

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Abstract

This study, which aimed to determine the organizational culture, commitment and job satisfaction among employees in insurance companies, utilized the descriptive-correlational research design. The respondents in the study were 383 who were randomly selected from a population of 144,000 employees of the top three insurance companies in Henan province in China. The stratified random sampling method was also used to ensure that respondents were proportionately represented. The results revealed that employees in insurance companies highly agree with the organizational culture and agree most with customer orientation. Employees in insurance companies have a high level of organizational commitment and have the highest level of affective commitment. Employees in insurance companies have a high level of job satisfaction and have the highest level of extrinsic satisfaction. There is a significant relationship between the organizational culture and job satisfaction among employees in insurance companies. There is a significant relationship between the organizational commitment and job satisfaction among employees in insurance companies.

Keywords: *Organizational Culture, Organizational Commitment, Job Satisfaction*

INTRODUCTION

Background and Rationale of the Study

In 1980, China resumed its insurance business. Since then, China's insurance industry has developed rapidly and healthily. As of December 31, 2020, China had a total of 238 insurance companies, 2,640 insurance intermediaries, and more than 8 million insurance employees (China Banking and Insurance Regulatory Commission, CBIRC, 2020).

However, competition among insurance companies has intensified in recent years. Performance appraisal and other pressures affect the organizational commitment and satisfaction of employees of insurance companies, which eventually leads to a large number of employees leaving the insurance company, and affects the stable development and market competitiveness of insurance companies. In 2018, the number of insurance marketing staff in China was 9.73 million, but by 2021, the number has plummeted to 6.419 million, a decrease of 3.311 million (China Banking and Insurance Regulatory Commission, 2021).

The core of organizational culture of insurance enterprises is a unique spirit reflected in the operation and management activities of insurance enterprises (Liu Yana, 2021). Organizational commitment shows a person's active emotion towards his organization. Ren Li (2022) proposed that employee organizational commitment in insurance companies has a positive effect on the

propensity to leave and insurance companies should optimize their human resource management programs to address the problem of talent loss. Job satisfaction is employees' feeling or emotional response to their job (Qi Yaqing, 2014). Many researches showed that there is a significant relationship among the organizational culture, commitment and job satisfaction among employees in insurance companies (Nie Lin, 2014; Li Shu, 2016; He Qiaodan etc., 2020; Jigjiddorj Sarantuya et al., 2021).

Through the study, the empirical reference for the correlation among organizational culture, employees' commitment and job satisfaction in insurance companies was proposed, and theoretical support and relevant suggestions for insurance companies to retain talents and promote the mutual growth of enterprises and employees was provided.

Objectives of the Study

The general objective of the study was to determine the organizational culture, commitment and job satisfaction among employees in insurance companies.

Specifically, this study was conducted to:

1. To describe the organizational culture in terms of employee development, harmony, customer orientation, social responsibility and innovation.

2. To describe the organizational commitment of

employees in terms of affective commitment, continuance commitment and normative commitment.

3. To describe the job satisfaction of employees in terms of intrinsic satisfaction, extrinsic satisfaction and general satisfaction.

4. To determine the relationship between the organizational culture and job satisfaction among employees in insurance companies.

5. To determine the relationship between the organizational commitment and job satisfaction among employees in insurance companies.

Hypotheses

H_{o1}: There is no significant relationship between the organizational culture and job satisfaction among employees in insurance companies.

H_{o2}: There is no significant relationship between the organizational commitment and job satisfaction among employees in insurance companies.

Theoretical Framework and Conceptual Framework of the Study

The theory of organizational culture emerged in the 1980s. William Ouchi's Z Theory lay stress on the human factors in the organization's management. It was considered that an organization needs to appraise not only production metrics, but also pay attention to cultural factors. Theory Z started the study of corporate culture theory and played a leyguiding role in promoting corporate culture (William Ouchi, 1981).

The theory of Latent Social Roles had a great influence on the research involving the organizational commitment. Gouldner (1958) found that in addition to formal and obvious roles in the organization, individuals also have potential social roles. According to their organizational commitment and occupational skills and abilities, and orientation of reference groups, potential roles are divided into six categories, two of which are called Cosmopolitans. The fourth category, known as Locals, is less loyal to the organization that employs them, more committed to skills for a particular role, and more likely to be externally reference-oriented than Locals.

Herzberg (1959) put forward the theory of hygiene-motivational theory. Motivating factors made employees feel satisfied, including sense of achievement, task challenges, and so on. Hygiene factors contributed to employee dissatisfaction, including leadership skills, interpersonal relationships, work environment, and so on. Only those motivating factors can be conducive to making people feel satisfied, and hygiene factors have no role in making people feel satisfied, only in eliminating their dissatisfaction. The improvement of incentive factors is conducive to employees' satisfaction, so as to greatly stimulate employees' work enthusiasm.

Based on above theories, there may be a correlation among the organizational culture, commitment and job satisfaction in insurance companies. Studying their interrelationship is very important to help policy makers to propose appropriate policies for the development of the insurance companies. However, there is no study determining the interrelationship between culture, employees' commitment and satisfaction in insurance companies.

The antecedent variable consists of the profile of employees in insurance companies in Henan province in terms of sex, age, educational attainment, marital status, and working years. The independent variables are organizational culture and commitment in insurance companies. Based on above theories, there are five typical cultural types, including: Employee Development, Harmony, Customer Orientation, Social Responsibility, and Innovation. There are three typical commitment types, including: Affective, Continuance and Normative commitment. Dependent variable is employees' job satisfaction of in insurance companies. Based on above theories, there are three typical satisfaction types: Intrinsic, Extrinsic and General satisfaction.
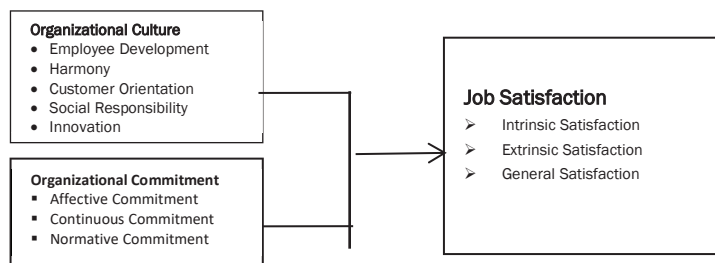
Figure 1. *Conceptual Framework of the Study*

Definition of Terms

Organizational culture is the underlying assumption an organization learns as it deals with outside adaptation and internal integration issues, which is created and developed by the organization itself and imparted to the organization's newcomers as a matter of understanding, thinking and feeling (Schein, 1983). It was measured by the Organizational Culture Scale in the context of Chinese enterprises developed by Tsui et al., which contains five dimensions: Employee Development, Harmony, Customer Orientation, Social Responsibility, and Innovation (Tsui et al., 2006).

Organizational commitment is a bond representing the relation between employees and an organizations, which means that an employee decide on whether staying in this organization (Meyer and Allen, 1990). It was evaluated by Three Component Model (TCM) developed by Meyer and Allen (1993), which is the most widely used scale in research in this area and has received wide academic support and acceptance. The TCM scale consists of a total of 18 items and is divided into three sections: Affective Commitment (AC), Continuance Commitment (CC) and Normative Commitment (NC), with six items in each section.

Job satisfaction refers to employee' satisfaction with work content and environment. This satisfaction comes not only from physiology, but also from psychology (Hoppock, 1935). It was measured by Minnesota Satisfaction Questionnaire (MSQ) developed by Weiss et al. (1967), including 20 items, divided into three groups to measure job satisfaction: Internal Satisfaction, External Satisfaction and General Satisfaction.

Significance of the Study

The following would benefit from the study:

Henan provincial government could build action plans conducive to the development of insurance industry in Henan province.

Insurance companies and theirs managers would take better management measures to improve the corporate culture of the company and employees' commitment level and job satisfaction, thus promote the development of insurance companies in Henan province.

Researchers in related fields and future researchers. This study would help researchers to obtain useful knowledge of management at the provincial level.

Scope of the Study

This study aimed to determine the correlation among organizational culture, commitment, job satisfaction among employees in insurance companies. This study was limited to the top three insurance companies in Henan Province and involved 383 employees of insurance companies. Primary data was collected in January, 2023.

METHODOLOGY

Research Design

The descriptive-correlational research design were used in this study. Research was conducted using stratified sampling techniques. This study utilized one-shot survey to gather primary data from the respondents.

Respondents of the Study

The respondents were the 383 employees selected from the total population of 144000 employees of top three insurance companies in Henan province. The sample size was determined using a sampling formula.

Research Instrument

This study will use a questionnaire survey. The questionnaire is composed of five parts: a) Organizational Culture Scale in China (OCSIC); b) Three Component Model (TCM) of commitment scale; c) Minnesota Satisfaction Questionnaire (MSQ). All the questionnaires used in this study are standardized questionnaires and permission from the authors of these instruments secured before use it.

Data Gathering Procedure

Information was collected through questionnaires. A total of 466 questionnaires were collected in this study, 383 of which were valid. During that time important data was gathered from those 383 participants.

After obtaining the consent of the department manager, the questionnaires were distributed to the respondents online, and every interviewee was thanked when the questionnaires were collected.

Data Processing and Analysis

After receiving the questionnaires, the information of each questionnaire was reviewed to ensure the completeness of questionnaire filling. SPSS 25.0 software was used for processing and analysis.

RESULTS AND DISCUSSION

Descriptive Data Analysis of Organizational Culture

Table 1 shows the descriptive data of the organizational culture in insurance companies.

The mean values of Employee Development, Harmony, Customer Orientation, Social responsibility and Innovation were 4.093, 4.130, 4.367, 4.302 and 4.262 respectively, indicating that the respondents highly agreed with all dimensions of organizational culture. The score of Customer orientation was highest (4.367) and Employee Development was lowest (4.093). The score of Customer orientation (4.367) was higher than other dimensions, indicating that respondents agreed more with customer orientation than other aspects.

Table 1
Descriptive Data Analysis of Organizational Culture

Organizational Culture			f	%
Employee Development				
Low (1.0-2.33)			9	2.35
Moderate (2.34-3.66)			85	22.19
High (3.67-5.0)			289	75.46
	Mean=4.093	SD=0.814		
Harmony				
Low (1.0-2.33)			13	3.39
Moderate (2.34-3.66)			77	20.11
High (3.67-5.0)			293	76.5
	Mean=4.130	SD=0.817		
Customer Orientation				
Low (1.0-2.33)			7	1.83
Moderate (2.34-3.66)			46	12.01
High (3.67-5.0)			330	86.16
	Mean=4.367	SD=0.715		
Social Responsibility				
Low (1.0-2.33)			10	2.61
Moderate (2.34-3.66)			53	13.84
High (3.67-5.0)			320	83.55
	Mean=4.302	SD=0.793		
Innovation				
Low (1.0-2.33)			12	3.13
Moderate (2.34-3.66)			47	12.27
High (3.67-5.0)			324	84.6
Mean=4.262	SD=0.770			
Total			**383**	**100**

Descriptive Data Analysis of Organizational Commitment of employees

Table 2 shows the descriptive data of the organizational commitment of employees in insurance companies.

The mean values of affective commitment, continuous commitment and normative commitment were 3.990, 3.721 and 3.784 respectively, indicating a high level of organizational commitment among employees. The score of affective commitment is highest (3.990) and continuous commitment was lowest (3.721). The score of affective commitment is higher than normative commitment and continuous commitment shows that employees have feelings for the organization and do not want to leave the organization. This is consistent with the study of Wei Jinxin (2007).

Table 2
Descriptive Data Analysis of Organizational Commitment

Organizational Commitment			f	%
Affective Commitment				
Low (1.0-2.33)			16	4.18
Moderate (2.34-3.66)			99	25.85
High (3.67-5.0)			268	69.97
	Mean=3.990	SD=0.844		
Continuance Commitment				
Low (1.0-2.33)			32	8.36
Moderate (2.34-3.66)			136	35.5
High (3.67-5.0)			215	56.14
	Mean=3.721	SD=0.909		
Normative Commitment				
Low (1.0-2.33)			35	9.14
Moderate (2.34-3.66)			116	27.29
High (3.67-5.0)			232	60.57
	Mean=3.784	SD=0.950		
Total			**383**	**100**

Descriptive Data Analysis of Job Satisfaction of employees

Table 3 shows the descriptive data of the job satisfaction of employees in insurance companies.

The mean values of intrinsic satisfaction, extrinsic satisfaction and general satisfaction were 4.000, 4.003 and 4.001 respectively, indicating that the respondents were satisfied with all aspects of their work. The score of extrinsic satisfaction is highest (4.003) and intrinsic satisfaction was lowest (4.000). This is consistent with the study of Cha Yufeng (2016), who believed that the overall satisfaction level of employees in X property insurance company is high.

Table 3

Descriptive Data Analysis of Job Satisfaction

Job Satisfaction	f	%
Intrinsic Satisfaction		
Low (1.0-2.33)	7	1.83
Moderate (2.34-3.66)	96	25.06
High (3.67-5.0)	280	73.11
Mean=4.000 SD=0.707		
Extrinsic Satisfaction		
Low (1.0-2.33)	10	2.61
Moderate (2.34-3.66)	99	25.85
High (3.67-5.0)	274	71.54
Mean=4.003 SD=0.752		
General Satisfaction		
Low (1.0-2.33)	6	1.57
Moderate (2.34-3.66)	102	26.63
High (3.67-5.0)	275	71.8

Relationship between Organizational Culture and Job Satisfaction

Table 4 presents the relationship between organizational culture and employees' job satisfaction in insurance companies. .

The Pearson's r test results show that Intrinsic satisfaction is significant to Innovation, Social responsibility, Customer orientation, Harmony, Employee development, and the correlation coefficient are 0.727, 0.689, 0.659, 0.717, 0.703. It means there is a positive correlation between Intrinsic satisfaction and Innovation, Social responsibility, Customer orientation, Harmony, and Employee development.

Extrinsic satisfaction and all dimensions of Organizational Culture (Innovation, Social responsibility, Customer orientation, Harmony, Employee development), and the correlation coefficient are 0.721, 0.683, 0.662, 0.720, 0.706. It means there is a positive correlation between General satisfaction and Innovation, Social responsibility, Customer orientation, Harmony, Employee development.

General satisfaction and is significant to Innovation, Social responsibility, Customer orientation, Harmony, Employee development, and their relative correlation coefficient are 0.735, 0.697, 0.670, 0.729, 0.715. It means that there is a positive correlation between job satisfaction and Innovation, Social responsibility, Customer orientation, Harmony and Employee development. This is in line with the study of Li Shu (2016).

Table 4

Relationship between Organizational Culture and Job Satisfaction

Organizational Culture	Job Satisfaction		
	Intrinsic Satisfaction	Extrinsic Satisfaction	General Satisfaction
Innovation	0.727	0.721	0.735
	0.000	0.000	0.000
Social Responsibility	0.689	0.683	0.697
	0.000	0.000	0.000
Customer Orientation	0.659	0.662	0.670
	0.000	0.000	0.000
Harmony	0.717	0.720	0.729
	0.000	0.000	0.000
Employee Development	0.703	0.706	0.715
	0.000	0.000	0.000

Relationship between Organizational Commitment and Job Satisfaction

Table 5 presents the relationship between organizational commitment and job satisfaction of employees in insurance companies.

The Pearson's r test results show that Intrinsic satisfaction is significant to Affective commitment, Normative commitment, and Continuance commitment with Pearson's r are 0.823, 0.803 and 0.734 respectively.

Extrinsic satisfaction is significant to Affective commitment, Normative commitment, Continuance commitment, with Pearson's r are 0.843, 0.792 and 0.725 respectively.

General satisfaction is significant to Affective commitment, Normative commitment, Continuance commitment, with Pearson's r are 0.845, 0.810 and 0.740 respectively.

This is in line with the study of He Qiaodan & Huo Jiazhen (2020), who proposed that employee satisfaction is positively correlated with organizational commitment.

Table 5

Relationship between Organizational Commitment and Job Satisfaction

Organizational Commitment	Job Satisfaction		
	Intrinsic Satisfaction	Extrinsic Satisfaction	General Satisfaction
Affective Commitment	0.823	0.843	0.845
	0.000	0.000	0.000
Normative Commitment	0.803	0.792	0.810
	0.000	0.000	0.000
Continuance Commitment	0.734	0.725	0.740
	0.000	0.000	0.000

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

On the basis of the findings presented, these are the conclusions:

1. Employees in insurance companies high agree with all dimensions of the organizational culture, which means that the employees are satisfied with the organizational culture of the insurance company especially in customer orientation.

2. Employees in insurance companies have a high level of organizational commitment and have the highest level of affective commitment, which means they are willing to stay in the organization. Meanwhile, employees have feelings for the organization and do not want to leave the organization.

3. Employees in insurance companies have a high level of job satisfaction and have the highest level of extrinsic satisfaction, which means they were satisfied with their work.

4. There is a significant relationship between the organizational culture and organizational commitment among employees in insurance companies. This implies that the employees' higher level of organizational commitment is significantly related to organizational culture.

5. There is a significant relationship between the organizational culture and job satisfaction among employees in insurance companies. This implies that the employees' higher level of job satisfaction is significantly related to organizational culture.

6. There is a significant relationship between the organizational commitment and job satisfaction among employees in insurance companies. This implies that the employees' higher level of job satisfaction is significantly related to organizational commitment.

Recommendations

Premised on the findings and conclusions above, the following are the recommendations:

Insurance companies and their managers should establish a good organizational culture and improve organizational commitment and job satisfaction of employees. Take effective incentive measures to improve employee recognition of organizational culture especially in the area of employee development through trainings and seminars. Attract and retain more talented employees who recognize the organization culture through recruitment and incentive measures. Increase the level of organizational commitment of employees especially in the area of continuous commitment and retain outstanding employees. Improve management level to improve employee' job satisfaction through effective incentive measures.

Government departments should formulate action plans conducive to the development of the insurance industry, strengthen supervision and management of insurance companies, and enable

employees to work in a better organizational culture and environment.

Researchers in related fields should use this research as a springboard to continue to carry out relevant research, and provide theoretical support and relevant suggestions for insurance companies to promote the common growth of enterprises and employees.

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Debt Financing and Enterprise Growth in the Steel Industry in China

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Abstract

This study, which aimed to determine debt financing and enterprise growth of the steel industry from 2010 to 2020 in China utilized the descriptive-correlational research design. The respondents in the study were 437 steel trading enterprises listed and their core enterprises in the supply chain. Including 47 upstream enterprises (steel mills), 30 steel trading enterprises and 364 downstream end customer enterprises. The frequency count and percentage were employed for descriptive statistics. Pearson's r and regression were used for inferential statistics. The result is that the debt financing of China's steel industry is at a low level .Generally, debt financing of China's steel industry is at a low level. Debt financing has a negative correlation with the growth of China's steel enterprises.

Keywords: Debt Financing, Steel Industry, Enterprise Growth

INTRODUCTION

Background of the Study

With the continuous development of the steel industry, China has become one of the world's largest steel producers. In 2020, due to COVID-19, the global crude steel production trend was interrupted, and China's crude steel production was only 1.864 million tons. However, China's crude steel production still accounts for more than half of the world's steel production. According to the latest survey by the China Iron and Steel Association, about half of all steel sales in China are sold through steel traders (China Iron and Steel Trade Association, 2020). Steel enterprises have large scale, long payback period and capital intensive characteristics. Therefore, the financing problem of the steel industry is a problem worthy of concern.

Therefore, the research on debt financing has an important practical significance. Therefore, from the perspective of supply chain financing, this dissertation selects China's A-share listed steel enterprises and their core enterprises of supply chain as the research object to discuss the debt financing and enterprise development of China's steel industry.

Objective of the Study

This study aims to determine debt financing and enterprise growth since its listing until 2020 in steel industry in China.

1. describe the profile of the enterprise in terms of ownership concentration, company nature and company size.
2. determine the debt financing in terms of the steel industry's short debt ratio and long debt ratio.
3. determine the enterprise growth in terms of profitability, operating capacity, business development ability, and solvency.
4. determine the relationship between the profile of the enterprise in terms of ownership concentration, company nature and company size and the debt financing.
5. determine the relationship between the enterprise growth and the profile of the enterprise in terms of ownership concentration, company nature and company size.
6. determine the relationship between debt financing and enterprise growth in terms of profitability, operating capacity, business development ability, and solvency.

Hypotheses

1. There is no relationship between the profile of the enterprise in terms of ownership concentration, company nature and company size and the debt financing.
2. There is no relationship between the enterprise growth and the profile of the enterprise in terms of ownership concentration, company nature and company size
3. There is no relationship between debt financing and enterprise growth in terms of profitability, operating capacity, business development ability, and solvency.

Theoretical Framework

Recent years, many relevant theories of debt financing have been formed, such as the theories of MM, principal-agent, and so on. These explanations are as follows:

MM theory (traditional capital structure theory)

According to the MM theory of Mondiglitz and Miller (1958), under the same conditions, the higher the debt ratio, the greater the debt interest to be paid, and the greater the tax credit effect, thereby increasing the value of the enterprise.

Principal Agent Theory (New Capital Structure Theory)

Jensen and Meckling proposed in 1976 that if both the principal and the agent pursue the maximization of their respective interests, the agent may not choose the most advantageous option for the principal when making decisions, resulting in agency costs.

Control Right Theory (New Capital Structure Theory)

The theory of control rights points out that capital structure is the ratio of debt to equity in corporate capital. If an enterprise raises funds through debt, then in the process of financing, creditors only receive the proceeds from lending funds, without corporate control.

Debt Financing Term Theory

In 1986, Jensen analyzed the debt maturity structure of an enterprise from the perspective of agency costs, it is generally required to regularly submit operational and management information in the signed loan contracts. This provided a theoretical basis for introducing short-term debt financing and long-term debt financing as independent variables in this article.

Enterprise Growth Theory

Perez (1959) coined a new mode to analyze the company's development through company's resources, growth, and capability. Enterprise growth is a dynamic process, and enterprise growth is a manifestation of comprehensive results. These results are the integrated action of internal driving elements and a variety of external factors on enterprise growth. This provided a theoretical basis for the extraction of enterprise growth indicators.
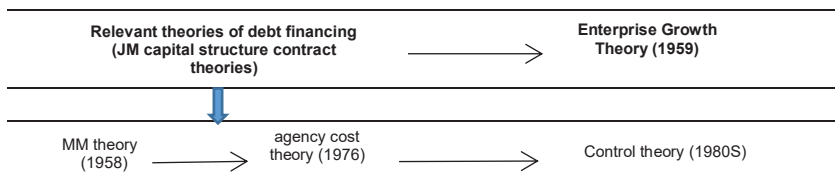
Figure 1. The Theoretical Framework of the study

Conceptual Framework of the Study

The author believes that the antecedent variables (company nature, ownership concentration, company size) may have relationships with enterprise growth and affect enterprise growth. In addition, the independent variable (debt financing) may have varying degrees of impact (positive or negative correlation) on the dependent variable (enterprise growth).

Hence, this dissertation puts forward the following conceptual frameworks as revealed in Figure2.
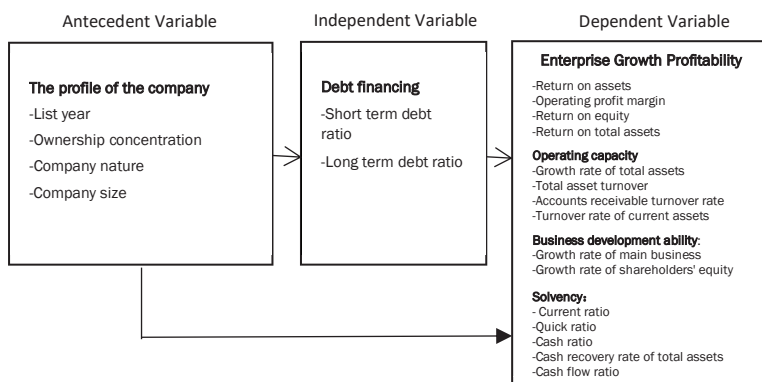
Figure 2. The Conceptual Framework of the study

Definitions of Terms

The following terms were defined on the basis of how they were used in this study:

List Year is defined as the year in which the company has been listed in the sample observation year (Li gang, 2009). In this study, list year refers to the length of time a steel company was listed.

Ownership concentration refers to a quantitative index of ownership concentration or dispersion due to the different shareholding ratio of shareholders, which can be used to measure the stability of the company. It is an important factor in corporate governance level (Wang Xiaojun, 2018). In this study, ownership concentration is divided into three groups which are Low, Moderate and High. They are based on the maximum and minimum values, the maximum minus the minimum and the resulting value is divided by 3 to obtain three groups. As shown in the following:

Ownership Concentration	Group
Low	0.35-33.57
Moderate	33.58-66.79
High	66.79-100

Company nature is defined as the nature of corporation ownership, whether it is a state-owned enterprise or a non-state-owned enterprise (Baidu, 2020). In this study, company nature is classified as state-owned enterprise (0), and non-state-owned enterprise (1).

Company size according to the document of [2011] No. 75 of the State Statistical Bureau of China, the measure for the classification of large, medium, small and micro enterprises (steel industry) are based on the following:

Size Unit: CNY10000 yuan)	Large	Medium	Small	Micro
Let Operating revenue=Y	Y≥40000	40000＞Y≥2000	2000＞Y≥300	Y＜300

In this study, company size refers to operating revenues, measured in terms of Y≥40000 (1), 40000＞Y≥2000 (2), 2000＞Y≥300 (3), and Y＜300 (4).

Debt financing refers to the process in which enterprises obtain the required funds from investors through various means, including bank credit, corporate bonds, commercial credit and leasing financing (Yanjiao, 2017). In this study, debt financing is measured in terms of short-term debt ratio and long-term debt ratio. Short-term debt financing is less than one year, and financing more than one year is called long-term debt financing. The specific formula is: long-term debt ratio = total long-term liabilities / total liabilities, short-term debt ratio = total short-term liabilities / total liabilities. Both Short-time debt ratio and Long-time debt ratio are divided into three groups which are Low, Moderate and High. They are based on the maximum and minimum values, the maximum minus the minimum and the resulting value is divided by 3 to obtain three groups. As shown in the following:

Short-time debt ratio	Group
Low	0-1.323
Moderate	1.324-2.626
High	2.627-3.969

Long-time debt ratio	Group
Low	0-0.24
Moderate	0.25-0.48
High	0.49-0.73

Enterprise growth is the description of the growth state of the enterprise, which refers to the ability of sustainable development of the enterprise, reflecting the future operating efficiency and development status of the enterprise. A single indicator may not fully describe the growth of an enterprise when studying the growth of an enterprise, so multiple financial indicators can be used to comprehensively consider the growth of an enterprise (Ezzeddine Trigui, 2011). In this study, enterprise growth was measured in terms of profitability, operating capacity, business development ability and solvency. These four indicators are divided into three groups which are Low, Moderate and High. They are based on the maximum and minimum values. The maximum minus the minimum and the resulting value is divided by 3 to obtain three groups. As is shown in the following:

Enterprise Growth	Group
Profitability	
Low	-6.24- -3.26
Moderate	-3.25- -0.28
High	-0.27- 2.69
Operating Capacity	
Low	-1.19- 0.73
Moderate	0.74-2.65
High	2.66-4.58
Business development ability	
Low	-1.51-2.31
Moderate	2.32-6.13
High	6.14-9.94
Solvency	
Low	-1.66- 0.63
Moderate	0.64-2.92
High	2.93-5.21

Scope of the study

This study, which aimed to determine the debt financing and enterprise growth since its listing until 2020 in steel industry in China. For the sake of the accuracy of the research, the research scope is China's A-share listed steel trading companies and their key companies of the supply chain, including

upper steel manufacturing companies, steel trading enterprises and downstream steel enterprises. This study is limited to 437 steel trading enterprises of Listed Companies in China and the key companies in the supply chain. The author collected secondary data from CSMAR database, which is a professional financial database .The secondary data covered all the data of the research object from the listing of the company since 2010to 2020.

RELATED LITERATURE AND STUDIES

Enterprise growth

British scholar Edith T. Penrose (1959) proposed in his book enterprise growth theory that as the first scholar to define enterprise growth, he believes that an enterprise is a management organizer and a resource integration integrating human resources and material resources first introduced the concept of "enterprise growth". (Liu & Wang, 2012).Ezzeddine Trigui (2011) thought that a single indicator could not fully describe the growth of an enterprise when studying the growth of an enterprise, so he chose multiple financial indicators to comprehensively consider the growth of an enterprise.

Debt financing

Grossman, Hart (1982) and diamond (1991) found that under the supervision and governance of creditors, debtors will actively improve earnings quality to reduce financing costs. Zhong and Gribbin (2017) found that debt financing significantly reduced the level of enterprise's accrued earnings management by discussing whether external major shareholders can recognize the enterprise's accrued earnings management behavior, which proves the governance role of debt financing, that is, if creditors strengthen the supervision of the enterprise to safeguard their own interests, the management will reduce earnings manipulation, So as to improve the earnings quality of enterprises.

Chinese scholars also found that the relationship between debt level and enterprise growth is also different, possibly because the sample data selected in the literature are different. Jiang Dan (2015) selected 300 companies listed on the SME board in China as the research sample. The empirical results show that the debt ratio of small and medium-sized enterprises has a marked negative influence on enterprise growth. Wang Ling, (2011) selected 36 high-tech small and medium-sized listed companies in Shenzhen Stock Exchange as a sample. The results show that the higher the debt financing level of high-tech small and medium-sized enterprises, the stronger their growth ability, indicating that debt financing can promote the growth of high technology SMEs to some extent.

METHODOLOGY

Research Design

This study used descriptive correlation research design, including the data frequency, percent and so on. This dissertation used comprehensive indicators to analyze when measuring enterprise growth Wang, 2019). In this dissertation, Entropy evaluation method was used for the extraction of enterprise comprehensive indicators. The author collected secondary data from CSMAR database, which is a professional financial database .The secondary data covered all the data of the research object from the listing of the company since 2010 to 2020.

Population and Sampling Design

This dissertation takes A-share listed companies as the object, and takes 437steel trading enterprises and their core enterprises in the supply chain as the sample size. Including 47 upstream enterprises (steel mills), 30 steel trading enterprises and 364downstream end customer enterprises.

Data-Gathering Device

This study focused on the financial reports and other information disclosed by the listed enterprises chosen on the CSMAR database. The data are disclosed to the public and audited by the accounting firm. The data are true and reliable.

Ethical Considerations

This study played a significant character in decision-making during the process of improving Chinese steel industry's debt financing structure, and then can give some instructions for the construction of the growth strategy of Chinese steel enterprises.

This study did not cause any harm to the respondents, nor did it produce any conflict of interest. The research were only used for research and policy recommendations. This study was analyzed based on the secondary data. The study does not include steel enterprises of non-a-share listed companies.

Data Processing and Analysis

Quantitative studies are applied to analyze the followings:

The data analyzed in three steps:

(1) Descriptive statistical analysis: maximum, minimum, mean, percentage and frequency used to describe the profile of the enterprises.

(2) Determine 4 comprehensive indexes (15 indicators) of enterprise growth: This dissertation used Entropy evaluation method to comprehensively measure enterprise growth in terms of profitability, operating capacity, business development ability and solvency. Entropy evaluation method: Entropy method is an objective weighting method that determines the weight of indicators based on the amount of information provided by the observed values of each indicator.

(3) Quantitative analysis is to determine the relations of debt finance and enterprise growth which will be carried out in two steps: Correlation coefficient and Multiple regression.

The multiple regression equation is as follows:
Growth
$_{it} = a_0 + a_1 LDR + a_2 SDR + a_3 CN + a_4 OSC + a_5 CS + \varepsilon (3.2)$

Here, i stands for the i-th enterprise and t stands for the growth in t-th year.

LDR = long term debt Ratio
SDR= short term debt Ratio
CN = company nature
OSC = Ownership concentration
CS = company size

RESULTS AND DISCUSSION

The results were obtained from data that based on the specific objectives, including descriptive data analysis and inferential data analysis.

Descriptive Data Analysis
Descriptive Analysis of the Profile of the Enterprise

Listed year. In terms of listed years, there are 23 companies (5.15%) which were between 1 to 5 years, 75 companies (17.2%) were between 6 to 10years, 198 companies (45.36%) were between 11 to 15 years, 132 companies (30.2%) were between 16 to 20 years, and 9 companies (2.09%) were 21 and above years. This indicates that most companies have been listed for a long time. China's steel enterprises are more mature listed companies. The study is different with the analysis of Zhang Qun and Zhu Zhi'an (2017).The result casts a new light on listed year.

Company Nature. There are 324 state-owned enterprise, accounting for 74.29%; there are113 non-state-owned enterprise, accounting for 25.71%.China's iron and steel enterprises started earlier, and most of them are state-owned enterprises supported by the state, accounting for 74.29%. The result in this dissertation is consistent with the analysis of Chen Xiaobin and Yuyi (2012).

Company Size. There are 370 large companies, accounting for 84.91% ; there are 63 medium companies, accounting for 14.31% ; there are 3 small companies, accounting for 0.77% ; there are 1 micro companies, accounting for 0.01%. The result in this dissertation is different from the analysis of the Development Report of China's Top 500 Enterprises (2004-2009).

Ownership Concentration. The mean value of ownership concentration is 40.07. Among the steel companies on the supply chain listed, 175 (40.07%) had low Ownership Concentration, 233 (53.3%) had moderate Ownership Concentration, 29 (6.63%) obtained high Ownership Concentration. This indicates that the Ownership Concentration value of the steel companies on the supply chain listed was moderate. The study in this dissertation is not consistent with the analysis of Wang Xiaojun (2018).

Table 1
Profile of the enterprise

Dimensions	f	%
List Year		
1-5	23	5.15
6-10	75	17.20
11-15	198	45.36
16-20	132	30.20
21 and above	9	2.09
Company Nature		
State-owned enterprise	324	74.29
Non-state-owned enterprise	113	25.71
Company Size		
Large	370	84.91
Medium	63	14.31
Small	3	0.77
Micro	1	0.01
Ownership Concentration		
Low (0.35-33.57)	175	40.07
Moderate (33.58-66.79)	233	53.30
High (66.79-100)	29	6.63
Mean=40.7 (moderate)		
Total	**437**	**100%**

Note: Unit: CNY10000 yuan. 1 refers to operating revenue>=40000, 2 refers to 40000>operating revenue>=2000, 3 refers to 2000>operating revenue>=300, 4 refers to operating revenue<300.

Descriptive Analysis of Debt Financing

Short term Debt Ratio (SDR) and Long term Debt Ratio (LDR)

The mean value of short term debt ratio is 0.17. Among the steel companies on the supply chain listed, 427 (97.7%) had low short term debt ratio, 4 (0.86%) had moderate short term debt ratio, 6 (1.44%) obtained high short term debt ratio. This founding is different from the founding of Tang Wei (2018).

For the long-time debt ratio, the mean value of long time debt ratio is 0.119. Among the steel companies on the supply chain listed, 360(82.45%) had low long time debt ratio, 68 (15.61%) had moderate long time debt ratio, 9(1.93%) obtained high long time debt ratio. This founding is consistent with the founding of Tang Wei (2018).

Table 2
Descriptive statistics of SDR and LDR

Dimensions	f	%
Short-time Debt Ratio		
Low(0-1.323)	427	97.7
Moderate(1.324-2.626)	4	0.86
High(2.627-3.969)	6	1.44
Mean=0.17(low)		
Long-term Debt Ratio		
Low(0-0.24)	360	82.45
Moderate(0.25-0.48)	68	15.61
High(0.49-0.73)	9	1.93
Mean=0.119(low)		
Total	**437**	**100**

Descriptive Analysis of Enterprise Growth

For the profitability, the mean value is 0.06. Among the steel companies on the supply chain listed, 9 (2.09%) had low profitability, 89 (20.26%) had moderate profitability, 339(77.66%) obtained high profitability. This finding is consistent with the finding of Xie Di &Kong Xiao (2018).

For the operating capacity, the mean value is 0.004. Among the steel companies on the supply chain listed, 381 (87.19%) had low profitability, 50 (11.41%) had moderate profitability, 6(1.4%) obtained high profitability. This founding is not consistent with the founding of Liu Qingmei &Zhao Juan (2020).

For the business development ability, the mean value is 0.001. Among the steel companies on the supply chain listed, 423 (96.71%) had low business development ability, 13 (3.01%) had moderate business development ability, 1(0.28%) obtained high business development ability. The research results of this paper is consistent with Liu Xiangsheng, et al., (2016).

For the solvency, the mean value is 0.001. Among the steel companies on the supply chain listed, 386 (88.26%) had low solvency, 46 (10.52%) had moderate solvency, 5(1.22%) obtained high solvency. The research results of this paper is consistent with Meng Fanjun, (2016).

Table 3
Descriptive statistics of Enterprise Growth

Enterprise Growth	f	%
Profitability		
Low(-6.24- -3.26)	9	2.09
Moderate(-3.25- -0.28)	89	20.26
High(-0.27- 2.69)	339	77.66
Mean=0.006(high)		
Operating Capacity		
Low(-1.19- 0.73)	381	87.19
Moderate(0.74-2.65)	50	11.41
High(2.66-4.58)	6	1.4
Mean=0.004(low)		
Business Development Ability		
Low(-1.51-2.31)	423	96.71
Moderate(2.32-6.13)	13	3.01
High(6.14-9.94)	1	0.28
Mean=0.001(low)		
Solvency		
Low(-1.66- 0.63)	386	88.26
Moderate(0.64-2.92)	46	10.52
High(2.93-5.21)	5	1.22
Mean=0.001(low)		
Total	**437**	**100**

Inferential Data Analysis

The Relationship between Antecedent Variables and the Debt Financing

Table 4 shows that company size, ownership concentration, company nature were significantly correlated with the short time debt ratio (p<0.05); company size, ownership concentration, company nature were significantly associated with the long-time debt ratio (p<0.05).While table 4 also showed that company size was positively correlated with debt financing significantly, indicating that most of China's steel enterprises are state-owned enterprises, which have been established for a long time.

Table 4
The Correlation between Antecedent Variable and Debt Financing

Antecedent Variable	Debt Financing	
	SDR	LDR
Company Size	r=0.139	r=0.483
	P=0.000	P=0.000
Ownership Concentration	r=0.057	r=0.040
	P=0.000	P=0.007
Company Nature	r=0.026	r=0.025
	P=0.037	P=0.057

The Relationship between Antecedent Variables and Enterprise Growth

Table 5 shows that company size and ownership concentration were significantly associated with the profitability (p=0), Company nature was not significantly correlated with the profitability (p>0.05); Company size, ownership concentration and company nature were significantly correlated with the Operating capacity (p<0.05); Company size was significantly associated with the develop ability

(p<0.05), ownership concentration and company nature (p>0.05) were not related to the develop ability. Company size, ownership concentration and company nature were significantly correlated with the solvency (p<0.05).While table 5 also showed that

Company size is positively correlated with enterprise growth in terms of profitability, operating capacity, develop ability and solvency significantly. This finding is similar with the findings of Li Mengya, et al.

Table 5
The Correlation between Antecedent Variable and Enterprise Growth

Antecedent Variable	Enterprise Growth			
	Profitability	Operating Capacity	Development Ability	Solvency
Company Size	r=0.154	r=0.061	r=0.041	r=-0.182
	P=0.000	P=0.000	P=0.001	P=0.000
Ownership Concentration	r=0.137	r=0.172	r=-0.010	r=-0.036
	P=0.000	P=0.000	P=0.4581	P=0.007
Company Nature	r=-0.002	r=-0.136	r=0.018	r=0.092
	P=0.855	P=0.000	P=0.173	P=0.000

The Relationship between the Debt Financing and Enterprise Growth
Correlation analysis

Table 6 shows short time debt ratio and long-time debt ratio is significantly associated with the profitability of enterprise growth (p=0.000）; Short time debt ratio and long-time debt ratio are significantly associated with operating capacity of the enterprise growth(p=0.000); Short time debt ratio and long-time debt ratio are significantly associated with develop ability of the enterprise growth(p=0.000);Short time debt ratio is significantly associated with develop ability of the enterprise growth(p=0.000),Long time debt ratio is not significantly correlated with develop ability of the enterprise growth(p=0.365).These findings are different from the finds of Li Mengya, et al.

Table 6
The Correlation between Debt Financing and the Growth

Debt Financing	Enterprise Growth			
	Profitability	Operating Capacity	Development Ability	Solvency
Short Time Debt Ratio	r=-0.263	r=0.109	r=-0.137	r=-0.290
	P=0.000	P=0.000	P=0.000	P=0.000
Long Ting Debt Ratio	r=-0.048	r=-0.105	r=0.041	r=-0.105
	P=0.000	P=0.000	P=0.005	P=0.365

Regression Analysis

According to the regressed model:
Growth
$$_{it}=a_0+a_1LDR+a_2SDR+a_3CN+a_4OSC+a_5CS+\varepsilon(3.2)$$
LDR = long term debt Ratio
SDR= short term debt Ratio
CN = company nature
OSC = Ownership concentration
CS = company size

Table 7 showed that the regression equation with enterprise growth in terms of profitability, operating capacity, business develop ability and solvency as the dependent variable, and short time debt ratio(α = -1.149, p <0.01) is negatively correlated with profitability at the level of 1%.Short time debt ratio(α = 0.416, p <0.01) is positively correlated with operating capacity at the level of 1%.While long time debt ratio(α =-0.833, p <0.01) is negatively correlated with operating capacity at the level of 1%. Short time debt ratio (α = -0.741, p <0.01) is negatively correlated with development ability at the level of 1%.Short time debt ratio (α =-0.980, p <0.01) and long-time debt ratio (α =-0.383, p <0.01) are negatively correlated with solvency at the level of 1%.While table 7 also showed that short time debt ratio is significantly correlated with enterprise growth in terms of profitability, operating capacity, develop ability and solvency. But short time debt ratio is positively correlated with operating capacity of enterprise growth at the level of 1%. The results presented in this dissertation is inconsistent with the results of Liu Yulai, (2016).

Table 7
Regression Results of Debt Financing and Enterprise Growth

Variables	Regression results			
	Profitability	Operating Capacity	Business Development Ability	Solvency
Short-Time Debt Ratio	-1.419***	0.416***	-0.741***	-0.980***
	(-12.86)	(6.66)	(-8.26)	(-18.21)
Long-Time Debt Ratio	-0.163	-0.833***	-0.127	-0.383***
	(-1.40)	(-9.23)	(-0.98)	(-4.91)
Company Nature	0.107***	-0.137***	0.0766*	0.0779***
	(3.42)	(-5.32)	(2.07)	(3.48)
Ownership Concentration	0.00260**	0.00544***	-0.00132	0.00183**
	(3.25)	(8.10)	(-1.37)	(3.16)
Company Size	0.194***	0.0871***	0.0332**	-0.0818***
	(17.48)	(9.74)	(2.59)	(-10.64)
_Cons	-3.083***	-1.975***	-0.683**	1.979***
	(-13.82)	(-10.71)	(-2.58)	(12.46)
Observations	5000	5000	5000	5000
R-Squared	0.213	0.114	0.035	0.155

CONCLUSIONS, AND RECOMMENDATIONS

Conclusions

1. Since most of the steel enterprises are government owned, they tend to be large in size with high ownership concentration.

2. The steel enterprises to operate normally, there must be a suitable financing method. Both the level of the short-time debt ratio and the long-time debt ratio in steel enterprises are relatively low, which is a signal of enterprise operated.

3. The steel enterprises are predominantly low in its growth.so there is a need to improve both local and international markets.

4. Debt financing is an important decision. The steel enterprises cannot fully finance its financial requirements through internal source.

5. The development of China steel enterprises is earlier. Most of China's steel enterprises are state-owned holding, company nature and ownership concentration have a certain impact on the growth of enterprises. Company size has a very significant impact on enterprise growth.

6. Excessive debt financing will bring more burden to enterprises and restrict their development.

Recommendations

1. From the government level: we should increase the support for the innovation of steel enterprises, especially for state- owned enterprises.

2. From the perspective of financial institutions: Banks and other financial institutions should strive to improve the later supervision.

3. From the perspective of China's Securities Regulatory Commission: CSRC should Targeted supervision of listed companies in the steel supply chain.

4. From enterprise level: actively implement the industrial upgrading policy of energy conservation and emission reduction proposed by the government.

5. From the perspective of scholars: to provide a new theoretical basis for the choice of debt financing in the steel industry.

6. From the perspective of investors, more steel enterprises that seek for having relatively concentrated equity concentration, large enterprise scale and low agency cost will have better growth.

7. From the perspective of enterprise: Moderately reduce the general debt financing level of steel enterprises and increase internal financing.

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Corporate Social Responsibility and Corporate Performance among Private Enterprises in Hebi City

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Abstract

This study, aimed to determine the corporate social responsibility and corporate performance among private enterprises in Hebi City in the year 2021, utilized the survey-correlational research design. The respondents in the study were 427 top managers who were stratified randomly selected from 9172 private enterprises in Hebi city. The results revealed that respondents show significant differences in terms of managers' age, sex, education background. From the difference analysis, it can be seen that those private enterprise top managers do not understand and practice corporate social responsibility quite well, for the entire environment in Hebi city do not require those private enterprises assuming too much social responsibility except the economic responsibility or the corporate social responsibilities to community. Thus in the correlation analysis, it can be seen that there is not much relationship between corporate social responsibility and corporate performance. This implies that it is essential for businesses, governments, and societies to engage in conversation with one another to improve the understanding and practice of private enterprises assuming corporate social responsibility.

Keywords: *Corporate, Social Responsibility, Private Enterprises*

INTRODUCTION

Background of the Study

The concept of enterprise social responsibility has been widely practiced by companies around the world (Kou Zhanying, 2014). In the academic aspect, scholars from all over the world have also been committed to studying whether those corporate assuming social responsibility can affect their corporate performance (Ma Peimin, 2022). As a small developing city in the central part of China, Hebi is still in a very early stage in the research and practice of corporate social responsibility.

The author interviewed some managers from the private enterprises in Hebi City and found that there are still a lot of issues to work out in terms of the research and development of CSR in Hebi City. Therefore, this research is to identify the present situation in Hebi City of how private enterprises assuming social responsibility and how it related to their corporate performance.

Objectives and Hypothesis

This research aimed to determine the corporate social responsibility and corporate performance among private enterprises located in the Hebi City.

Specifically, this study sought answers to the following objectives:

1. To determine the profile of administrative personnel in terms of their sex, age and educational background.

2. To determine the corporate social responsibility by referring to CSR to society, CSR to employee, CSR to ecological environment, CSR to consumer and CSR to community.

3. To determine the corporate performance in terms of organizational performance, operational performance and financial performance.

4. To identify if there are significant differences in corporate social responsibility according to administrators' profiles.

5. To identify if there are significant differences in the corporate performance according to the profile of administrators.

6. To find out if there is a significant relationship between the corporate social responsibility and the corporate performance.

So the hypothesis of the study are as following:

1. There are no significant differences in corporate social responsibility according to administrators' profiles.

2. There are no significant differences in the corporate performance according to the profile of administrators.

3. There is no significant relationship between the corporate social responsibility and the corporate performance.

Theoretical and Conceptual Framework

Corporate Social Responsibility and Stakeholder Theory. This study was anchored on the stakeholder theory which provided the ongoing discussion regarding whether or not businesses should be socially responsible. Friedman (1962), Hayek (1969), and Posner (1997) contend that corporations should not be socially accountable. Andrews and Peter. F. Drucker (1986) and other academics who support the stakeholder approach (Clarkson, 1995; Freeman, 1984; Mitchell & Wood, 1997) argue that businesses should undertake social responsibilities proportionally. In particular, the study of stakeholder theory has created the theoretical underpinning for corporate social responsibility (Liu Zangyan, 2009).

There is no unified international standard for how stakeholders can be classified for the famous stakeholder theory of corporate social responsibility. In this study, the author adopted the Multi-Cone Segmentation Method, using the key indicators of the method in terms of CSR to society, CSR to employees, CSR to consumers, CSR to ecological environment and CSR to community (Freeman. R. E., 1984).

Corporate Performance. Corporate performance has long been considered as a conceptual measure of corporate success because it can be used to measure the operation and development of a business (Peter F.Drucker, 1986). Here is a comprehensive measurement of corporate performance using the organizational theory.

Venkatraman and Ramanujam believe that the core of enterprise strategy is to improve enterprise performance (Gao Ke, 2008), summarizing and proposing to explain and measure performance with three domains: operational performance, organizational performance and financial performance (Venkatraman and Ramanujam, 1986).

The antecedent variables in this study are the profile of the administrators in terms of sex, age, and educational background. Based on the author's expectations, the perception of the elements that impact corporate social responsibility may vary according to the profile of the administrators. The independent variables are the corporate social responsibility in terms of CSR to social development, CSR to employees, CSR to ecological environment, CSR to consumers and CSR to community. The dependent variable was the corporate performance in terms of operational performance, organizational performance and financial performance.
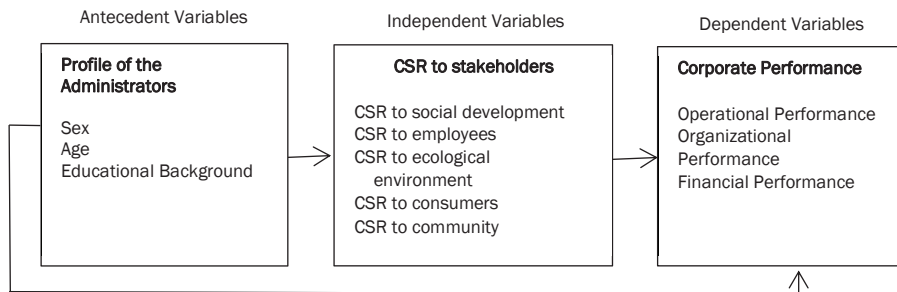
Figure 1. The Corporate Social Responsibility and its Relationship to Corporate Performance among Private Enterprises in Hebi City.

Significance of the Study

The results of the study may be beneficial to certain groups of people or organizations in the subsequent context:

Private enterprises. This study let enterprises know better about the situation with their stakeholders, aids them in gaining a better understanding of the social responsibility that is expected of their organizations, so they will be able to better execute the entire strategy plan for their firm as a result of having a better understanding of the link between social responsibility and corporate success.

All-China Federation of Industry and Commerce (ACFIC). This study shows to the ACFIC the current situation of small and medium-sized private enterprises in underdeveloped areas understanding and assuming social responsibility, and provides reference for the continuous promotion of private enterprises assuming social responsibility nationwide in the next step.

Academic Institutions. Educational institutions can adjust the teaching content according to the results of this study, and at the same time, provide some reference opinions for some research

institutions to further research on private corporate social responsibility.

Scope and Limitation

This study was conducted from September to November 2022 by the researcher in Hebi City using primary data. The author adopted the method of stratified sampling, at last 427 enterprises responded after the questionnaire link was issued.

This study was carried out using descriptive, correlation and variability research methods. Data was processed and analyzed using SPSSAU, which is an online SPSS platform. The author collected and analyzed data all by herself.

On the basis of these analyses, the paper proposed some meaningful recommendations to enhance the performance of the corporation and encourage the managers to assume social responsibility in a more reasonable and rational manner.

RELATED LITERATURE AND STUDIES

Following the implementation of reforms and openings in China, private businesses have flourished, contributing significantly to the overall expansion of the country's economy (Yu Huan, 2020). Zhu Min and Jin Tao (2015) claimed that big challenges were still faced in the process of the development of the private economy. Whether actively assuming corporate social responsibility can help in optimizing corporate performance has been discussed widely in the world (Yang Hanmin, 2011).

It has been discovered that the private businesses in China are progressively developing a stronger sense of social responsibility; yet, as a result of their late start, there are still certain gaps and flaws in the system (Sun Yuzhong & Zhang Taoxi, 2021). Throughout the study outcomes, they primarily concentrate on the how the social responsibility performance influences the financial performance.

Positive Correlation. Liu Changcui, Kong Xiaoting (2006) for random research of some listed companies. The result shows that the correlation between social responsibility performance and ROE is significantly positively related. On the basis of their research, Yang Yi and Shen Hongtao (2008) took Security Companies from 1997 to 2003 as a sample, obtained the positive relationship between the two.

Negative Correlation. There are still some academics who maintain that there is a negative association between CSR and financial success. Li Zheng (2006) conducted an investigation into the data of 521 publicly traded firms and arrived at the conclusion that the performance of corporate social responsibility would bring about a decrease in the value of the company. Similarly, Shao Junli (2009) came to the same conclusion after doing research on A-share chemical goods listed businesses between the years 2002 and 2004.

Non-correlation. Brammer (2004) employed the return on stock as the primary indicator in his study of the link between corporate social responsibility and a company's financial success. The study's findings revealed that there is no substantial correlation between the two factors. Wang Jianqiong and He Jingyi (2009) evaluated 2005 of manufacturing A-share listed businesses, using ROE as a metric of financial success. The findings demonstrated that there is no connection between the company's corporate social responsibility and its financial performance.

METHODOLOGY

This research aimed to determine the differences in corporate social responsibility and the relationship between corporate social responsibility and corporate performance, utilized the quantitative method. Quantitative research deals with numbers and statistics to systematically measure the study variables and test the hypotheses and to confirm, modify, or totally reject theories and assumptions.

The total population of the study are the top managers of 9,172 private enterprises in Hebi City. Top manager refers to the person in charge of business execution or in the highest position of the enterprise.

The study was supposed to involve a sample size of 383 based on the following sample size determination formula:

$$n = \frac{N}{1 + N * e^2}$$

Where:
n is size of the sample
N is total number of employees
e is standard error at α = 0.05

The 383 manager-respondents were planned to be picked out based on stratified sampling technique. Because the author used the "Questionnaire Star", which is an online questionnaire collecting program to collect the

questionnaires and with the help of local Association of Industry and Commerce, the total respondents were 427, which means 44 more than original plan 383, the valid recovery rate is 111.5%.

Since this is a quantitative study, questionnaires were used in order to conduct an empirical analysis of the issues have been looked at. The author structured all the questionnaires by herself combined with the private enterprise social responsibility report compiled by the State Federation of Industry and Commerce as well as the theory about corporate social responsibility and corporate performance.

There are three questionnaires used for collecting data and the formulated questionnaires were initially pretested to 50 managers. Then it have

been modified by the result, and have been given to some specialists for the validation of its contents. Thereafter, it have been presented to the panel of examiners for approval.

Some government departments were visited to gather information needed. These departments are the Statistics Office, Commercial and Industrial Association and Big Data Bureau of Hebi City which can provide information about the private enterprises. The questionnaires were distributed through "Questionnaire Star", which is an online questionnaire distributing and collecting platform, and at last 427 manager respondents participated in the survey. After sometime, the questionnaires were retrieved and reviewed for the completeness and accuracy of the responses.

RESULTS

Profile of Administrators

Table 1 shows the administrators profile in terms of sex, age and education background. There are more male samples than female, most of the top

managers of private enterprises in Hebi city are in their middle age and more than half of the samples are university undergraduates.

Table 1
Respondents' Profile

Profile	f	%
Gender		
Male	164	38
Female	263	62
Age (years)		
30 and below	17	4
31-40	166	39
41-50	143	34
51-60	91	21
Above 60	10	2
Educational Background		
Middle school and below	20	5
High school or technical secondary school	45	10
Junior college	100	23
University undergraduate	247	58
Graduate student or above	15	4
Total	427	100.00

Corporate Social Responsibility

The corporate social responsibility are divided into five categories: CSR to society, CSR to employees, CSR to ecological environment, CSR to consumers and CSR to community. For each question, here are five options. "Very poor" scores 1; "Poor" scores 2; "Medium" scores 3; "Good" scores

4 and "Very Good" scores 5. Based on the scale scores, the author computed for the level of CSR to society, employees, ecological environment, consumers and community as Low (1.0-2.33), moderate (2.34-3.66), high (3.67-5.0). Table 8 showed the results obtained in this study.

Table 2

Corporate Social Responsibility

Corporate Social Responsibility	f	%
CSR to Society		
Low (1.0-2.33)	93	21.8
Moderate (2.34-3.66)	130	30.4
High (3.67-5.0)	204	47.8
Mean=3.03		
CSR to Employees		
Low (1.0-2.33)	74	17.3
Moderate (2.34-3.66)	169	39.6
High (3.67-5.0)	184	43.1
Mean=3.48		
CSR to Ecological Environment		
Low (1.0-2.33)	102	23.9
Moderate (2.34-3.66)	182	42.6
High (3.67-5.0)	143	33.5
Mean=2.9		
CSR to Consumers		
Low (1.0-2.33)	71	16.6
Moderate (2.34-3.66)	130	30.4
High (3.67-5.0)	226	52.9
Mean=3.56		
CSR to Community		
Low (1.0-2.33)	26	6.1
Moderate (2.34-3.66)	143	33.5
High (3.67-5.0)	258	60.4
Mean=3.93		
Total	427	100.00

Corporate Performance

Table 3 shows the corporate performance represented by operational performance, organizational performance and financial performance.

Table 3

Corporate Performance

Corporate Performance	f	%
Operational Performance		
Low (1.0-2.33)	62	14.5
Moderate (2.34-3.66)	211	49.4
High (3.67-5.0)	154	36.1
Mean=3.28		
Organizational Performance		
Low (1.0-2.33)	73	17.1
Moderate (2.34-3.66)	230	53.9
High (3.67-5.0)	124	29.0
Mean=3.11		
Financial Performance		
A) ROE		
Low (less than 10.0)	162	37.9
Moderate (10.01-20.0)	198	46.4
High (more than 20.0)	67	15.7
Mean =13.181		
B) ROA		
Low (less than 5.0)	321	75.2
Moderate (5.01-10.0)	103	24.1
High (more than 10.0)	3	0.7
Mean =7.136		
C) ROI		
Low (less than 10.0)	150	35.1
Moderate (10.01-20.0)	181	42.4
High (more than 20.0)	96	22.5
Mean =14.120		

Difference Analysis

The author analyzed the difference of "corporate social responsibility" and "Corporate Performance" according to respondents' sex, age and education background. The results are shown below.

Table 4 shows the differences in CSR to different stakeholders according to administrators' profile. It can be seen that: different sex, age, education background samples show significant differences for CSR to Society; different age shows no significance while sex and education background samples shows

significant differences in CSR to Employees; different sex, age samples show no significance while education background samples show significant differences for CSR to ecological environment; For CSR to consumers, sex and education background samples show significant differences; For CSR to community, different sex, age and education background samples all show no significance.

Table 4a
Differences in CSR to Society according to Administrators' Profile.

Profile	N	Mean±SD	F/t value	p value
Sex			3.340	0.001**
Female	164	4.01±0.67		
Male	263	3.77±0.76		
Age (years)			5.950	0.000**
30 and below	17	4.27±0.63		
31-40	166	3.72±0.78		
41-50	143	4.04±0.65		
51-60	91	3.75±0.76		
Above 60	10	4.08±0.37		
Educational Background			5.154	0.000**
Middle school and below	20	4.24±0.47		
High school or technical secondary school	45	4.13±0.62		
Junior college	100	3.97±0.62		
University undergraduate	247	3.74±0.79		
Graduate student or above	15	3.89±0.74		

* p<0.05 ** p<0.01

Table 4b
Differences in CSR to Employees according to Administrators' Profile.

Profile	N	Mean±SD	F/t value	p value
Sex			3.101	0.002**
Female	164	3.84±0.84		
Male	263	3.57±0.95		
Age (years)			1.618	0.169
30 and below	17	3.72±0.76		
31-40	166	3.60±0.96		
41-50	143	3.80±0.84		
51-60	91	3.57±0.96		
Above 60	10	4.00±0.85		
Educational Background			2.909	0.021*
Middle school and below	20	3.94±0.69		
High school or technical secondary school	45	3.95±0.82		
Junior college	100	3.77±0.85		
University undergraduate	247	3.55±0.96		
Graduate student or above	15	3.80±0.88		

* p<0.05 ** p<0.01

Table 4c
Differences in CSR to Ecological Environment according to Administrators' Profile

Profile	N	Mean±SD	F/t value	p value
Sex			0.613	0.540
Female	164	4.09±0.73		
Male	263	4.04±0.78		
Age (years)			1.260	0.285
30 and below	17	4.40±0.57		
31-40	166	4.02±0.80		
41-50	143	4.10±0.71		
51-60	91	4.00±0.79		
Above 60	10	4.14±0.78		
Educational Background			2.873	0.023*
Middle school and below	20	4.42±0.45		
High school or technical secondary school	45	4.24±0.56		
Junior college	100	4.13±0.72		
University undergraduate	247	3.97±0.80		
Graduate student or above	15	3.99±0.99		

* p<0.05 ** p<0.01

Table 4d
Differences in CSR to Consumers according to Administrators' Profile

Profile	N	Mean±SD	F/t value	p value
Sex			3.764	0.000**
Female	164	3.95±0.73		
Male	263	3.65±0.83		
Age (years)			1.391	0.236
30 and below	17	4.00±0.46		
31-40	166	3.67±0.79		
41-50	143	3.77±0.86		
51-60	91	3.88±0.81		
Above 60	10	3.68±0.60		
Educational Background			4.179	0.002**
Middle school and below	20	3.92±0.49		
High school or technical secondary school	45	4.04±0.79		
Junior college	100	3.91±0.72		
University undergraduate	247	3.63±0.86		
Graduate student or above	15	3.89±0.62		

* $p<0.05$ ** $p<0.01$

Table 4e
Differences in CSR to Community according to Administrators' Profile

Profile	N	Mean±SD	F/t value	p value
Sex			1.184	0.237
Female	164	4.00±0.72		
Male	263	3.91±0.80		
Age (years)			0.469	0.759
30 and below	17	4.18±0.42		
31-40	166	3.92±0.80		
41-50	143	3.96±0.77		
51-60	91	3.94±0.80		
Above 60	10	4.02±0.55		
Educational Background			2.146	0.074
Middle school and below	20	4.10±0.53		
High school or technical secondary school	45	4.08±0.59		
Junior college	100	4.07±0.71		
University undergraduate	247	3.86±0.83		
Graduate student or above	15	4.01±0.74		

* $p<0.05$ ** $p<0.01$

Table 5 shows the differences in organizational performance in terms of operational performance, organizational performance and financial performance according to administrators' profile. It can be seen that: there are significant differences in operational performance according to age and education background; there are significant differences in organizational performance according to sex, age and education background; For financial performance, different age, education background samples were different for ROE, different sex, age, education background samples were different for ROA, and only age shows significant difference for ROI.

Table 5a
Differences in Operational Performance According to Administrators' Profile

Profile	N	Mean±SD	F/t value	p value
Sex			1.669	0.096
Female	164	4.11±0.66		
Male	263	3.99±0.79		
Age (years)			44.772	0.000**
30 and below	17	3.29±0.48		
31-40	166	3.68±0.50		
41-50	143	2.92±0.66		
51-60	91	3.69±0.24		
Above 60	10	3.60±0.23		
Educational Background			6.286	0.000**
Middle school and below	20	4.33±0.37		
High school or technical secondary school	45	4.39±0.55		
Junior college	100	4.12±0.72		
University undergraduate	247	3.90±0.78		
Graduate student or above	15	4.23±0.59		

* $p<0.05$ ** $p<0.01$

Table 5b
Differences in Organizational Performance According to Administrators' Profile

Profile	N	Mean±SD	F/t value	p value
Sex			7.634	0.000**
Female	164	3.58±0.42		
Male	263	3.16±0.72		
Age (years)			45.668	0.000**
30 and below	17	3.61±0.22		
31-40	166	3.73±0.48		
41-50	143	3.70±0.24		
51-60	91	3.31±0.47		
Above 60	10	2.91±0.67		
Educational Background			17.725	0.000**
Middle school and below	20	3.72±0.33		
High school or technical secondary school	45	3.68±0.31		
Junior college	100	3.52±0.48		
University undergraduate	247	3.11±0.71		
Graduate student or above	15	3.72±0.34		

* $p<0.05$ ** $p<0.01$

Table 5c
Differences in ROE According to Administrators' Profile

Profile	N	Mean±SD	F/t value	p value
Sex			-1.343	0.180
Female	164	12.64±8.06		
Male	263	13.71±8.03		
Age (years)			4.461	0.002**
30 and below	17	4.10±5.85		
31-40	166	13.86±8.16		
41-50	143	13.72±8.11		
51-60	91	13.25±7.59		
Above 60	10	9.91±6.35		
Educational Background			2.973	0.019*
Middle school and below	20	11.04±8.71		
High school or technical secondary school	45	11.98±8.50		
Junior college	100	14.06±8.34		
University undergraduate	247	13.75±7.78		
Graduate student or above	15	7.72±5.58		

* $p<0.05$ ** $p<0.01$

Table 5d
Differences in ROA According to Administrators' Profile

Profile	N	Mean±SD	F/t value	p value
Sex			-2.100	0.036*
Female	164	6.60±4.20		
Male	263	7.54±4.69		
Age (years)			7.253	0.000**
30 and below	17	1.79±5.17		
31-40	166	7.68±4.59		
41-50	143	7.42±4.30		
51-60	91	7.07±4.38		
Above 60	10	4.65±2.46		
Educational Background			3.048	0.017*
Middle school and below	20	5.58±3.92		
High school or technical secondary school	45	6.33±4.20		
Junior college	100	7.40±4.21		
University undergraduate	247	7.55±4.74		
Graduate student or above	15	4.32±3.09		

* $p<0.05$ ** $p<0.01$

Table 5e
Differences in ROI According to Administrators' Profile

Profile	N	Mean±SD	F/t value	p value
Sex			1.324	0.186
Female	164	14.44±15.96		
Male	263	14.78±11.33		
Age (years)			7.35	0.000**
30 and below	17	4.21±6.70		
31-40	166	15.04±10.96		
41-50	143	15.09±11.12		
51-60	91	14.94±16.18		
Above 60	10	14.60±12.76		
Educational Background			1.283	0.276
Middle school and below	20	14.27±11.05		
High school or technical secondary school	45	12.91±12.76		
Junior college	100	14.13±14.14		
University undergraduate	247	14.76±13.43		
Graduate student or above	15	8.65±6.52		

* $p<0.05$ ** $p<0.01$

Correlation Analysis

Correlation analysis was used to study the correlation relationship between organizational performance, operational performance, ROE, ROA, ROI and CSR to society, CSR to employee, CSR to Ecological Environment, CSR to consumer and CSR to community, Spearman correlation coefficient was used to indicate the strength of the correlation. Table 6 shows the results.

Table 6
Correlations between CSR to Stakeholders and Corporate Performance

		Operational performance	organizational performance	ROE	ROA	ROI
CSR to Society	r	0.169**	0.069	-0.008	0.007	-0.047
	p	0.000	0.156	0.870	0.886	0.336
CSR to Employees	r	-0.048	0.103*	-0.086	0.011	-0.085
	p	0.3270	0.033	0.076	0.826	0.081
CSR to Environment	r	-0.078	-0.033	0.016	0.034	-0.010
	p	0.109	0.498	0.738	-0.119	0.834
CSR to Consumers	r	0.133**	-0.011	-0.087	0.021	-0.080
	p	0.006	0.826	0.109	0.662	0.098
CSR to Community	r	-0.071	-0.016	0.034	-0.005	0.019
	p	0.146	0.740	0.484	0.920	0.693

* $p<0.05$ ** $p<0.01$

DISCUSSION

There are relatively more "Male" in the sample than "Female. For Age, most of the top managers of private enterprises are in their middle age, booth 30 and below and above 60 are quite few. In Education Background distribution, most of the samples were "University undergraduate", graduate degree or above accounts for a very small proportion of the top managers of private enterprises, so it can be seen that the ability of private enterprises to attract highly educated talents is still very weak.

These results are consistent with expectations. Women are considered more emotional and detail-orientated than men, and they are more likely to share feelings with employees and consumers. Actually there have been a lot of studies and researches that supported that female entrepreneur would be more willingly to take more social responsibility. Actually, a lot of studies have identified that education background of managers affects significantly in enterprises assuming corporate social responsibility, for example Wu Fang had an study on the influence of private entrepreneurs on the performance of CSR in 2015 identified that higher education background the managers attained, more aware they would like to assume corporate social responsibility.

From the financial data that for those mangers who have a high education background but few working years still need more working experience. As it was claimed in Xiang Kaibiao's article in 2014: the living environment of private enterprises is relatively difficult, so managers needs to have a greater spirit of adventure and innovation, and at the same time, it also needs to be very familiar with the living environment of private enterprises. The behavior pattern of compliance is not conducive to the survival of private enterprises.

According to the correlation analysis in this study, it supports the "Non-correlation" results in the past researches. The same results were published by Sturdivant and Ginter (1977), McWilliams and Siegel (2000), Brammer (2004) and also Chinese scholars Wang Jianqiong and He Jingyi (2009) and etc.

CONCLUSIONS AND RECOMMENDATIONS

In the results of this study, there is not much correlation between the corporate social responsibility and the corporate performance. In particular, the author found that the financial performance of enterprises are not directly related to their attitude and behavior of corporate social responsibility. Meanwhile, the private enterprises themselves also do not have much interest in assuming social responsibility. The situation is not as optimistic as we thought. There are several reasons as follows: in terms of legislation, though it is said in the law that all enterprises should assume social responsibility, these provisions are only in principle, without fixed specific measures; In terms of supervision, the government currently only stipulates that central enterprises and state-owned enterprises should issue social responsibility reports every year, and there is no mandatory requirement for private enterprises; In terms of economic environment, the average survival time of small and micro enterprises in China is not more than three years, so even they understand the importance of enterprise social responsibility, they also have to sometimes sacrifice social responsibility to in exchange for survival.

As for the private enterprises in Hebi City, whether companies assume social responsibility has little impact on corporate performance and in terms of corporate social responsibility, the overall performance is not optimistic, but this does not mean that corporate social responsibility is not important. On the contrary, this result means that the government has not done well in the recognition of private enterprises 'fulfilling their social responsibility, as well as between private enterprises' subjective understanding and objective actions.

Recommendation to Private Enterprises

Increase the proportion of female managers. In terms of the importance of corporate social responsibility and corporate organizational performance evaluation, female managers who are more meticulous, more sensitive and more responsible have a better performance than men.

Optimize the age structure of senior managers in the enterprise. People who are too young or too old are not suitable as senior managers of enterprises. Managers who are too young do not have rich social experience, and too old may have a lack of energy or too arbitrary appearance, which is not conducive to the performance improvement of the whole enterprise.

In addition, private enterprises should jump out of the family management mode and hire professional managers with higher education. All, the leadership of enterprises should actively respond to policies, carefully study relevant laws and regulations, as well as various newly constructed mechanisms and rules.

Recommendation to the ACFIC

Urge the legislature to establish laws and regulations to unify the corporate social responsibility bearing standards. It should be noted that the standards for corporate social responsibility must be unified, objective and quantifiable, so as to avoid difficulties to follow due to different standards.

Recommendation to Academic Institutions

Enhance the school education on corporate social responsibility. Make use of university teachers and hardware resources to help private enterprise managers to improve their knowledge. Our local academy should develop a feasible management cadre training plan according to local private enterprises' own management personnel quality and management development goals, then optimize the training content, carefully selected training materials, improve teaching methods, strengthen teaching management and strict assessment. On the one hand, a large number of enterprise management talents can be trained through institutions of higher learning, on the other hand, in-service enterprise management personnel can be trained through various ways in combination with the actual production needs of enterprises.

Above all, at present, the degree of enterprises practicing social responsibility is only in the primary stage of development in China, which needs the attention of all sides of the society. The difficulty in the actual implementation of social responsibility should lie in the limitations of private enterprises themselves, as well as the difficulty to quantify and unify the standards. This requires the government to do the backing of the strong support as the premise. If the society wants to develop harmoniously, enterprises are one of the most important subjects.

There is still a long way to go before Hebi City's and even China's private enterprises want to shoulder their social responsibility.

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Innovation Management and Refund Performance among the Department of Science and Technology (DOST)-Assisted Enterprises: Implications to an Enhancement Program

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Abstract

This study analyzed the relationship between innovation management and refund performance of the MSMEs assisted by DOST in Western Visayas. Also, it investigated whether significant differences would exist in the innovation management and refund performance of the firms when grouped according to the characteristics of the firm and the owner. The study used a survey-correlational design utilizing a self-administered questionnaire on innovation available in the public domain. The respondents are owners or key personnel selected through stratified simple random sampling from a population of 341 assisted firms. There were 92 MSMEs that participated in the study. The statistical tools used were frequency count and percentage, mean, and standard deviation for descriptive statistics and the Chi-square test for inferential statistics with a significance test set at .05. The results suggest that innovation management had no relationship with the refund performance of the MSMEs. Location, number of employees, and size affect firms' active implementation of product innovations. Also, the number of employees and size influence their active execution of organizational innovations. The owner's long business experience affects their high refund performance. A strategic location facilitates easy access to sources and suppliers of raw materials, transportation, labor, utilities, and customers, among others that fuel product innovations. The number of employees and size affect their capacity to implement product innovation since the creation of new products requires more than a few workers and investment from the company. The owners with long business experience are more committed to repaying their financial obligations because they want to maintain their good creditworthiness rating.

Keywords: *micro, small, and medium enterprises, product innovation, process innovation, organizational innovation, marketing innovation*

INTRODUCTION

Innovation has been recognized by governments as a crucial factor in sustaining economic growth and development. It is also essential in coming up with long-term responses to any challenges, such as adapting to the new normal with the occurrence of the COVID-19 pandemic.

The Global Innovation Index (GII) Report showed that the Philippines ranked 50th in 2020, 51st in 2021, and moved down to 59th place in 2022. The results of the 2020 GII on domestic value added (DVA) and total production output in high technology sectors were analyzed and the results showed that the Philippines is the only country among the ASEAN-6 nations, namely, Brunei, Indonesia, Malaysia, Singapore, and Thailand whose DVA in its gross exports failed to reach US$100 billion in 2018 (Li, 2021). The finding underscored the incapability of local firms to produce high-value products, resulting in a low DVA, and the high GII ranking in key high-tech sectors was attributed to multinational corporations rather than homegrown enterprises.

Among the three main islands of the country, Albert et al. (2018) found that the Visayas has the lowest number of firms that were innovation-active and product innovators at 36.6% and 27.5%, correspondingly. However, it has the biggest share of firms with public financial support for innovation, are marketing innovators, and are aware of any government innovation policy or intervention across areas at 6.3%, 49.2%, and 30.9%, respectively.

To promote innovation and boost the productivity and competitiveness of the MSMEs, the DOST offers a wide range of science and technology solutions under its Small Enterprise Technology Upgrading Program (SETUP). A primary component of the program is the SETUP Innovation-Enabling Fund (SETUP *i*Fund) which provides financial assistance to eligible MSMEs to acquire the appropriate technology for implementing innovations. The financial assistance is not a grant so the MSMEs are required to fully refund or return it to the government within a period of three to five years without interest with a one-year grace period. In Western Visayas, a total of 517 MSMEs had availed of the DOST's SETUP *i*Fund from 2003 to 2021.

However, focusing on the program's refund performance, the agency's report showed that it is below 90%. From 2018 to 2019, the national refund performance was 86%, it declined to 79% in 2020 and increased to 80% in 2021. For Western Visayas, refund performance was 86% in 2018 and 85% from 2019 to 2021.

Ideally, assisted MSMEs should be able to return the assistance to the government so that the agency can justify the continuous implementation of its program since the funds are recovered as planned and are used to upgrade many other enterprises. Likewise, MSMEs should be able to innovate in different aspects of their operation such as generating improved goods and services to become competitive.

A study on innovation management and refund performance of business enterprises is very limited which is a gap that this study hopes to fill. A low refund performance is a symptom that needs to be studied so that appropriate actions can be implemented. The association between innovation management and the refund performance of enterprises can provide insights and empirical basis to agencies in enhancing programs, projects, and activities to promote innovation and growth of the MSME sector.

Objectives of the Study

This study was conducted to determine the innovation management and refund performance among the Department of Science and Technology (DOST)-assisted enterprises and the implications to an enhancement program.

The specific objectives of the study include the following:

1. To describe the MSMEs' characteristics in terms of location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size.

2. To describe the owners' characteristics in terms of age, sex, highest educational attainment, and length of business experience.

3. To describe the MSMEs' innovation management in terms of product innovation, process innovation, organizational innovation, and marketing innovation when grouped according to the firms' characteristics (location, industry classification, years in operation, type of ownership, geographic market, number of employees and size) and owners' characteristics (age, sex, highest educational attainment, and length of business experience).

4. To describe the MSMEs' refund performance when grouped according to the firms' characteristics (location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size) and owners' characteristics (age, sex, highest educational attainment, and length of business experience).

5. To determine if significant differences exist in the innovation management among MSMEs when grouped according to the firm's and the owner's characteristics.

6. To determine if significant differences exist in the refund performance among MSMEs when grouped according to the firm's and the owner's characteristics.

7. To determine if significant relationships exist among the MSMEs' innovation management in terms of product innovation, process innovation, organizational innovation, marketing innovation, and refund performance.

Hypotheses

1. No significant differences exist in the innovation management among MSMEs when grouped according to their characteristics (location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size) and owners' characteristics (age, sex, highest educational attainment, and length of business experience).

2. No significant differences exist in the refund performance among MSMEs when grouped according to their characteristics (location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size) and owners' characteristics (age, sex, highest educational attainment, and length of business experience).

3. No significant relationships exist among the MSMEs' innovation management in terms of product innovation, process innovation, organizational innovation, marketing innovation, and refund performance.

Theoretical Framework

This study is anchored on Schumpeter's Theory of Innovation which suggests that business innovation is the major reason for increased investments and business fluctuations (Meghan, 2016). In Schumpeter's view, boosting business

performance is the primary reason that firms innovate. A positive effect of innovation will result in better performance of the firm while a negative effect will be evidenced by low performance.

Moreover, this study is grounded on the Theory of the Firm which states that a firm exists and makes decisions to maximize profits (Murphy, 2020). The firm will find ways to increase revenue and lower costs in the short run but it will procure fixed assets like equipment to ensure its profitability in the long run. The cash invested in assets will certainly affect profits in the short term but will help in the long-term viability of the firm.

Conceptual Framework

The antecedent variables of the study are the MSME characteristics in terms of location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size; and owners' characteristics in terms of age, sex, highest educational attainment, and length of business experience. Innovation management and refund performance are the independent and dependent variables, respectively.
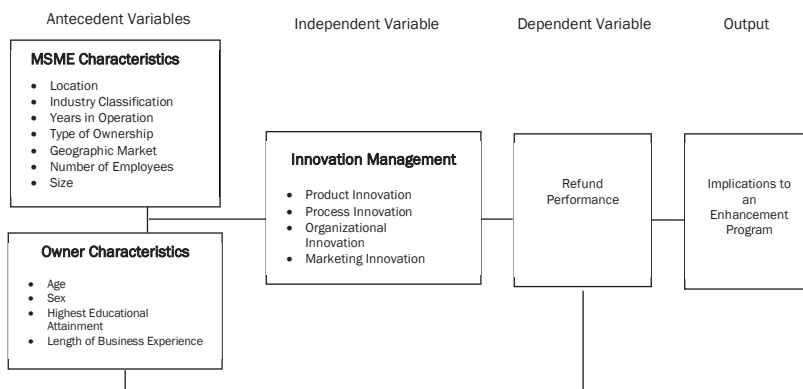
Figure 1. Innovation Management and Refund Performance among the Department of Science and Technology (DOST)-Assisted Enterprises: Implications to an Enhancement Program

Significance of the Study

The result of the study would benefit the MSMEs and their owners since an improved understanding of the prevailing innovation practices would result in better programs, projects, and activities that can be availed from concerned institutions involved in developing the sector. The DOST would be greatly benefitted from the results of this study since they could serve as their basis for enhancing the delivery of their services provided under SETUP as its flagship program in assisting the MSMEs.

Moreover, the DTI, LGUs, academe, and other private and public institutions involved in developing the MSME sector would be benefitted from this study because the insights generated could provide ideas in the conceptualization and implementation of innovative policies, programs, projects, and activities to advance the development of the sector. Lastly, other researchers could utilize this study as a reference to answer their research questions.

Scope and Limitations of the Study

Given the objectives, a survey-correlational research design was utilized. The participants of the study were the 92 owners or key personnel of MSMEs randomly selected from the 341 assisted firms by the DOST under its SETUP *i*Fund from 2003 to 2020 in Western Visayas.

The data collection was conducted from March to April 2023 covering the six provinces of Western Visayas. The gathered data were electronically tabulated utilizing the SPSS version 24. Frequency count, percentage, mean, and standard deviation were employed for the descriptive statistics; and the chi-square test was used for inferential statistics, set at a .05 level of significance.

Related Literature and Studies

In the Philippines, the government is offering directed credit programs (DCPs) to individuals, business enterprises, or a defined sector of the population for production, working capital, processing, etc. for them to carry out important developmental activities (Llanto et al., 1999). The DOST, Cooperative Development Agency (CDA), and Department of Agriculture (DA) were among the agencies that implement DCPs.

Llanto et al. (n.d.) found that generally, the interest rates range from 0% to 24%. The interest varies depending on the loan purpose, maturity, collateral requirements, and firm size. It is higher for fixed asset loans, medium- to long-term loans, non-fully collateralized loans, and larger SMEs, accordingly. Likewise, the applicable interest rates are either on diminishing loan balances or on a flat rate basis.

Moreover, Geron et al. (2016) found that all of the government's credit programs for smallholders involving farmers have both short and long terms. The short-term loan has a duration of six months to one year, while the long-term loan is good for one year and more, except for Sikat Saka and Agrarian Production Credit Program (APCP) which provides only short-term loans.

One of the concerns in implementing DCPs is the low repayment rates in which one of the reasons cited is the dole-out mindset of the borrowers who consider the loans as grants that should not be paid. This claim was confirmed by Subbarao et al. (1996) who found that the unsatisfactory repayment rates of the livelihood programs they reviewed were due to the borrowers' reluctance and not incapability to repay the loans Llanto (n.d.).

Many studies underscored that innovative activities result in improved performance of the firm. It was found to be an important factor in increasing the profit and market share of the majority of firms (Merono-Cerdan & Lopez-Nicolas, 2017; Shujahat et al., 2019). Mai et al. (2019) found that innovation positively influenced the profitability of firms both in the short and long term.

Llanto and Prado (2015) found that sales, profits, and labor productivity increased as a result of product and process innovations. Likewise, it was concluded that the important factors which led firms to innovate are size, age, and foreign equity.

However, some studies showed that innovation did not always result in improved performance. Oliveira et al. (2018) found that the impacts of innovation do not necessarily result in the improved financial condition of firms. There are risks involved in innovating such as producing new products which will not increase short-term profits.

Consequently, Hai et al. (2022) found that there is an increase in the cost of goods when companies carry out innovation which affected profitability as well as shareholders' returns. At first, producers of new products undergo the danger of newness such as tensions with existing organizations (Gimenez-Fernandez et al., 2020). Yang and Aldrich (2017) pointed out that complicated issues were encountered by evolving organizations or those having new technologies or products that affect their viability which may include their lack of legality, limited linkages among industry players, and how to rapidly put together the needed resources.

METHODOLOGY

Research Design

This study, which aimed to determine the relationship between innovation management and refund performance among DOST-assisted enterprises, utilized a survey-correlational design. Survey research is deemed to be one of the most common data collection methods for correlational research which is a quantitative approach using measures and samples carefully selected by the researcher (Price et al., 2015).

Participants of the Study

The respondents were the 92 owners or key personnel of MSMEs randomly selected from the 341 firms assisted by the DOST under its SETUP *i*Fund from 2003 to 2020 in Western Visayas. The sample size of 181 was determined using a sampling formula, however, only 92 firms participated.

Research Instrument

The study adopted the Survey on Innovation Activity (SIA) questionnaire used by the Philippine Statistics Authority (PSA) and Philippine Institute for Development Studies (PIDS) which is available in the public domain. However, additional data, namely, the highest educational attainment, and length of business experience of the owner were added in the last part of the questionnaire.

Ethical Consideration

The researcher acquired an ethical clearance from the CPU Research Ethics Committee last January 19, 2023. Permission from the Regional Director of the DOST Regional Office VI was secured before the deployment of the survey questionnaires. The consent of the participants to take part in the study was obtained using the standard Informed Consent Form (ICF) of the University.

Data Gathering Procedure

The researcher secured the approval to carry out the study from the School of Graduate Studies and ethical clearance from the CPU Research Ethics Committee. To make sure of a high response rate, the researcher obtained the approval of the DOST VI Regional Director to allow the distribution of the survey questionnaires during the annual forum being conducted by the office per province. During the forum, the researcher presented the Informed Consent Form (ICF) and distributed the survey

questionnaire. The MSMEs were requested to sign the Certificate of Consent for those who are willing to participate in the study.

Data Processing Procedure

Editing was performed on completed questionnaires to discover errors, blanks, discrepancies in responses, and the like. Then, the data were encoded, a data file was created and electronically tabulated using the SPSS version 24. Based on the participant's answers to the general information, the MSME and owner characteristics were determined. The MSMEs' responses to the questions on innovation management in terms of product innovation, process innovation, organizational innovation, and marketing innovation were also defined.

Moreover, based on the result of their refund performance as of December 31, 2021, the participants were categorized as having above-average performance if the result is from 100% to 85%; average performance if the score is from 84% to 69%; and below average if the score is 68% to 0%.

Statistical Data Analysis Procedure

Descriptive analysis was used to present and describe the characteristics of the enterprise and the owner, the innovation management, and the refund performance of the MSMEs. The descriptive statistics employed were frequency count, percentage, mean, and standard deviation. Likewise, an inferential analysis was done to test if significant differences and relationships would exist among variables. The inferential statistics used was the chi-square test at a .05 level of significance.

RESULTS AND DISCUSSION

Table 1 shows the profile of the MSMEs that participated in the study wherein a large portion are from Iloilo. The majority are engaged in food processing and are in the start-up and growth stages. Most are single proprietorship enterprises operating locally, and the majority have 1 to 9 employees and are classified as micro-enterprises.

Table 1
Characteristics of the Micro, Small, and Medium Enterprises

Category		f	%
A.	Entire group	92	100
B.	Location		
	Aklan	12	13
	Antique	12	13
	Capiz	8	9
	Guimaras	18	20
	Iloilo	23	25
	Negros Occidental	19	21
C.	Industry Classification		
	Food Processing	61	66
	Crop, Animal Production, Hunting, Fishing and Aquaculture	8	9
	Fabricated Metal Products & Machinery and Equipment Manufacturing	9	10
	Furniture Manufacturing	5	5
	Other Manufacturing Industries	9	10
D.	Years in Operation		
	10 years & below (Startup Phase)	31	34
	11 to 20 years (Growth Phase)	31	34
	21 to 30 years (Maturity Phase)	17	18
	31 years & above (Renewal/Decline Phase)	13	14
E.	Type of Ownership		
	Single Proprietorship	71	77
	Partnership	3	3
	Corporation	18	20
F.	Geographic Market		
	Local (in the region only)	67	73
	National (in the country only)	14	15
	Local, National & Other Countries	11	12
G.	Number of Employees		
	1 to 9	48	52
	10 and above	44	48
H.	Size		
	Micro	48	52
	Small	44	48

The findings are consistent with the 2020 Philippine MSME Statistics which showed that of the total employment contribution of MSMEs (64.67%) in the country, MSMEs that hire 1 to 9 employees accounted for 50.2%. Likewise, of the total number of MSMEs (99.58%) in the country, microenterprises accounted for 90.93% (DTI, n.d.). The slow transition of the MSMEs from micro to small and small to large was affected by the numerous challenges they face and was aggravated by the occurrence of the COVID-19 pandemic. Based on DTI's Impact Assessment Survey of COVID-19 on the MSME Sector, more than a quarter (27.7%) had stopped operating, more than half (52.5%) partially operated, and only 19.8% fully opened (UN, n.d.).

Moreover, the results supported the findings of the 2019 Annual Survey of Philippine Business and Industry (ASPBI) – Economy-wide Preliminary Results which showed that the manufacturing industry where food processing belongs ranked fourth and third in terms of the number of establishments and employment generated, respectively, among the 18 economic sectors (PSA, 2022).

The results were in line with the findings of the Consumer Price Index (CPI) of All Income Households in Western Visayas: April 2022 which states that Iloilo had the lowest CPI at 105, the slowest inflation rate at 1.9, and the highest purchasing power of the peso (PPP) at 0.93 (PSA, 2022). The CPI means that in April 2022, to afford a basket of goods valued at 100 pesos in 2018, households in Iloilo will need an additional 5 pesos only to buy the same basket of goods as compared to other provinces wherein an additional 6.6 pesos or more is needed. A low but positive inflation rate is good as this will not cause an imbalance in supply and demand, and will not erode purchasing power. Likewise, a high PPP is beneficial because given the consumers' income, they can buy more goods or services thus, and they are encouraged to spend or buy more.

Table 2 presents the profile of the owners wherein a large number were in the 55- to 64-year-old bracket; the majority are females and college graduates; and had 11 years and more of business experience.

The results supported the labor survey which showed that the Labor Force Participation Rate (LFPR) among males was higher compared to females (PSA, 2022). Likewise, the finding of the 2019 Functional Literacy, Education, and Mass Media Survey wherein there were more female college graduates than males (PSA, 2019).

Table 2
Characteristics of the Owners

	Category	f	%
A.	Entire group	92	100
B.	Age		
	44 years old and below	23	25
	45 to 54 years old	25	27
	55 to 64 years old	27	29
	65 years old and above	17	18
B.	Sex		
	Male	43	47
	Female	49	53
C.	Highest Educational Attainment		
	High School & Post-Secondary Graduate	3	3
	College Undergraduate	12	13
	College Graduate	67	73
	Post Baccalaureate	10	11
D.	Length of Business Experience		
	5 years and below	7	8
	6 to 10 years	23	25
	11 years and more	62	67

Table 3 shows the innovation management of participants categorized by MSME characteristics which shows that the majority introduced product innovations in terms of new or significantly improved goods; implemented process innovations in terms of new or significantly improved manufacturing methods; executed organizational innovations in terms of significant changes to the organization of work; and introduced marketing innovations in terms of the use of new pricing methods to market goods and services.

Table 3

Innovation Management of MSMEs when grouped according to MSME characteristics

MSME Characteristics	Product Innovation				Process Innovation					
	New or Significantly Improved Goods		New or Significantly Improved Services		New or Significantly Improved Manufacturing Methods		New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
A. Location	48	52	36	39	43	47	36	39	33	36
Aklan	11	12	8	9	8	9	6	7	6	7
Antique	6	7	5	5	7	8	5	5	6	7
Capiz	5	5	3	3	3	3	2	2	2	2
Guimaras	6	7	3	3	9	10	6	7	5	5
Iloilo	11	12	9	10	8	9	8	9	7	8
Negros Occ.	9	10	8	9	8	9	9	10	7	8

Innovation Management — Marketing Innovation

MSME Characteristics	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
B. Industry Classification	48	52	36	39	43	47	36	39	33	36				
Food Proc.	35	38	24	26	30	33	25	27	24	26				
Other Industries	13	14	12	13	13	14	11	12	9	10				
C. Years in Op.	48	52	36	39	43	47	36	39	33	36				
Startup	17	18	11	12	16	17	11	12	11	12				
Growth	13	14	13	14	12	13	14	15	14	15				
Maturity	10	11	8	9	10	11	8	9	6	7				
Renewal/Decline	8	9	4	4	5	5	3	3	2	2				
D. Type of Ownership	48	52	36	39	43	47	36	39	33	36				
Single Prop.	36	39	25	27	34	37	29	32	23	25				
Partnership	1	1	1	1	0	0	0	0	0	0				
Corporation	11	12	10	11	9	10	7	8	10	11				
E. Geographic Market	48	52	36	39	43	47	36	39	33	36				
Local	36	39	25	27	31	34	26	28	25	27				
National	4	4	4	4	7	8	4	4	4	4				
Local, Nat'l & Other Countries	8	9	7	8	5	5	6	7	4	4				
F. No. of Employees	48	52	36	39	43	47	36	39	33	36				
1 to 9	21	23	11	12	18	20	16	17	12	13				
10 & above	27	29	25	27	25	27	20	22	21	23				
G. Size	48	52	36	39	43	47	36	39	33	36				
Micro	21	23	11	12	18	20	16	17	12	13				
Small	27	29	25	27	25	27	20	22	21	23				

Innovation Management — Marketing Innovation

MSME Characteristics	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
A. Location	41	45	34	37	47	51	46	50	48	52	33	36	53	58
Aklan	6	7	4	4	7	8	5	5	6	7	5	5	8	9
Antique	6	7	6	7	6	7	6	7	7	8	5	5	6	7
Capiz	7	8	5	5	6	7	7	8	6	7	4	4	7	8
Guimaras	7	8	5	5	9	10	10	11	9	10	6	7	14	15
Iloilo	7	8	6	7	8	9	11	12	9	10	6	7	11	12
Negros Occ.	8	9	8	9	11	12	7	8	11	12	7	8	7	8
B. Industry Classification	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Food Proc.	26	28	26	28	32	35	30	33	34	37	23	25	37	40
Other Industries	15	16	15	16	15	16	16	17	15	16	10	11	16	17
C. Years in Op.	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Startup	16	17	13	14	19	21	17	18	17	18	12	13	19	21
Growth	14	15	13	14	14	15	16	17	15	16	8	9	21	23
Maturity	8	9	5	5	8	9	8	9	9	10	7	8	9	10
Renewal/Decline	3	3	3	3	6	7	5	5	7	8	6	7	4	4
D. Type of Ownership	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Single Prop.	32	35	26	28	37	40	35	38	37	40	26	28	45	49
Partnership	1	1	0	0	1	1	1	1	1	1	1	1	1	1
Corporation	8	9	8	9	9	10	10	11	11	12	6	7	7	8
E. Geographic Market	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Local	27	29	25	27	31	34	31	34	32	35	21	23	39	42
National	6	7	3	3	8	9	7	8	8	9	5	5	7	8
Local, Nat'l & Other Countries	8	9	6	7	8	9	8	9	9	10	7	8	7	8
F. No. of Employees	41	45	34	37	47	51	46	50	49	53	33	36	53	58
1 to 9	18	20	14	15	21	23	22	24	24	26	17	18	29	32
10 & above	23	25	20	22	26	28	24	26	25	27	16	17	24	26
G. Size	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Micro	18	20	14	15	21	23	22	24	24	26	17	18	29	32
Small	23	25	20	22	26	28	24	26	25	27	16	17	24	26

Tables 4 presents the innovation management of participants categorized by the owner characteristics which indicated that the majority of the owners introduced product innovations in terms of new or significantly improved goods; implemented process innovations in terms of new or significantly improved manufacturing methods; executed organizational innovations in terms of significant changes to the organization of work; and introduced marketing innovations in terms of the use of new pricing methods to market goods and services.

Table 4

Innovation Management of Participants in Terms of the Owner Characteristics

| | | Product Innovation | | | | | | Process Innovation | | | |
| | | New or Significantly Improved Goods | | New or Significantly Improved Services | | New or Significantly Improved Manufacturing Methods | | New or Significantly Improved Logistics, Delivery, or Distribution Methods | | New or Significantly Improved Supporting Activities | |
Owners Characteristics		f	%	f	%	f	%	f	%	f	%
A.	Age	48	52	36	39	43	47	36	39	33	36
	44 yrs old & below	15	16	12	13	15	16	13	14	11	12
	45 to 54 yrs old	11	12	8	9	11	12	10	11	11	12
	55 to 64 yrs old	12	13	10	11	11	12	6	7	5	5
	65 yrs old & above	10	11	6	7	6	7	7	8	6	7
B.	Sex	48	52	36	39	43	47	36	39	33	36
	Male	24	26	20	22	21	23	17	18	19	21
	Female	24	26	16	17	22	24	19	21	14	15
C.	Highest Edu. Attainment	48	52	36	39	43	47	36	39	33	36
	HS & Post Sec. Grad.	3	3	2	2	3	3	2	2	2	2
	College Undergraduate	6	7	4	4	6	7	4	4	3	3
	College Graduate	34	37	24	26	29	32	27	29	23	25
	Post Bacc.	5	5	6	7	5	5	3	3	5	5
D.	Length of Bus. Experience	48	52	36	39	43	47	36	39	33	36
	5 yrs & below	4	4	2	2	3	3	3	3	3	3
	6 to 10 yrs	10	11	8	9	10	11	6	7	4	4
	11 yrs & more	34	37	26	28	30	33	27	29	26	28

| | | Organizational Innovation | | | | | | | | | |
| | | New or Significantly Improved Knowledge Management Systems | | New Management Systems | | Significant Changes to the Organization of Work | | Significant Change to the Management Structure | | New or Significant Changes in its Relations with Other Establishments or Public Institutions | |
Owners Characteristics		f	%	f	%	f	%	f	%	f	%
A.	Age	34	37	31	34	50	54	33	36	32	35
	44 yrs old & below	11	12	9	10	13	14	8	9	8	9
	45 to 54 yrs old	9	10	8	9	12	13	9	10	7	8
	55 to 64 yrs old	10	11	9	10	18	20	12	13	13	14
	65 yrs old & above	4	4	5	5	7	8	4	4	4	4
B.	Sex	34	37	31	34	50	54	33	36	32	35
	Male	17	18	17	18	25	27	17	18	17	18
	Female	17	18	14	15	25	27	16	17	15	16
C.	Highest Edu. Attainment	34	37	31	34	50	54	33	36	32	35
	HS & Post Sec. Grad.	1	1	1	1	1	1	0	0	1	1
	College Undergraduate	2	2	1	1	5	5	2	2	4	4
	College Grad.	27	29	24	26	39	42	27	29	24	26
	Post Baccalaureate	4	4	5	5	5	5	4	4	3	3
D.	Length of Bus. Exp.	34	37	31	34	50	54	33	36	32	35
	5 yrs & below	5	5	2	2	4	4	0	0	2	2
	6 to 10 yrs	8	9	5	5	11	12	5	5	7	8
	11 yrs & more	21	23	24	26	35	38	28	30	23	25

| | | Marketing Innovation | | | | | | | | | | | | |
| | | Significant Changes to the Design | | Significant Changes to the Packaging | | Target New Customer Groups | | New Media or Techniques for Promotion | | New Sales Channels | | New Concepts for Product Presentation | | New Pricing Methods | |
MSME Characteristics		f	%	f	%	f	%	f	%	f	%	f	%	f	%
A.	Age	41	45	34	37	47	51	46	50	49	53	33	36	53	58
	44 yrs old & below	13	14	10	11	17	18	14	15	13	14	9	10	15	16
	45 to 54 yrs old	12	13	11	12	17	18	12	13	13	14	6	7	15	16
	55 to 64 yrs old	10	11	7	8	9	10	14	15	17	18	12	13	17	18
	65 yrs old & above	6	7	6	7	5	5	6	7	6	7	6	7	6	7
B.	Sex	41	45	34	37	47	51	46	50	49	53	33	36	53	58
	Male	21	23	18	20	19	21	20	22	25	27	17	18	26	28
	Female	20	22	16	17	28	30	26	28	24	26	16	17	27	29
C.	Highest Edu. Attainment	41	45	34	37	47	51	46	50	49	53	33	36	53	58
	HS & Post Sec. Grad.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	College Undergraduate	5	5	3	3	6	7	7	8	6	7	3	3	5	5
	College Grad.	28	30	25	27	34	37	32	35	36	39	25	27	40	43
	Post Baccalaureate	6	7	4	4	5	5	5	5	5	5	3	3	6	7
D.	Length of Bus. Exp.	41	45	34	37	47	51	46	50	49	53	33	36	53	58
	5 yrs & below	4	4	4	4	4	4	3	3	4	4	2	2	4	4
	6 to 10 yrs	11	12	7	8	15	16	13	14	14	15	8	9	17	18
	11 yrs & more	26	28	23	25	28	30	30	33	31	34	23	25	32	35

Table 5 shows the refund performance of participants in terms of MSME characteristics which revealed that, it was above average across all categories of the MSME characteristics (location,

industry classification, years in operation, type of ownership, geographic market, number of employees, and, size).

Table 5

Refund Performance of Participants in Terms of MSME Characteristics

MSME Characteristics		Refund Performance								Mean	Std. Dev.
		Above Ave.		Average		Below Ave.		Total			
		f	%	f	%	f	%	f	%	µ	s
A.	Location	87	95	2	2	0	0	92	100	97	12
	Aklan	12	13	0	0	0	0	12	13	100	0
	Antique	12	13	0	0	2	2	12	13	100	2
	Capiz	6	7	0	0	0	0	8	9	82	35
	Guimaras	18	20	0	0	0	0	18	20	99	2
	Iloilo	22	24	1	1	1	1	23	25	99	4
	Negros Occ.	17	18	1	1	3	3	19	21	96	11

MSME Characteristics		Refund Performance								Mean	Std. Dev.
		Above Ave.		Average		Below Ave.		Total			
		f	%	f	%	f	%	f	%	µ	s
B.	Industry Classification	92	100	2	2	3	3	92	100	97	12
	Food Processing	61	66	1	1	1	1	61	66	98	13
	Other Industries	31	34	1	1	2	2	31	34	97	12
C.	Years in Operation	87	95	2	2	3	3	92	100	97	12
	Startup	29	32	0	0	2	2	31	34	95	19
	Growth	30	33	1	1	0	0	31	34	99	3
	Maturity	16	17	0	0	1	1	17	18	98	9
	Renewal/ Decline	12	13	1	1	0	0	13	14	97	6
D.	Type of Ownership	87	95	2	2	3	3	92	100	97	12
	Single Proprietorship	67	73	2	2	2	2	71	77	97	13
	Partnership	2	2	0	0	1	1	3	3	88	21
	Corporation	18	20	0	0	0	0	18	20	100	0
E.	Geographic Market	87	95	2	2	3	3	92	100	97	12
	Local	62	67	2	2	3	3	67	73	97	14
	National	14	15	0	0	0	0	14	15	99	2
	Local, National & Other Countries	11	12	0	0	0	0	11	12	98	4
F.	No. of Employees	87	95	2	2	3	3	92	100	97	12
	1 to 9	45	49	2	2	1	1	48	52	97	15
	10 and above	42	46	0	0	2	2	44	48	98	9
G.	Size	87	95	2	2	3	3	92	100	97	12
	Micro	45	49	2	2	1	1	48	52	97	15
	Small	42	46	0	0	2	2	44	48	98	9

Table 6 presents the refund performance of participants in terms of owner characteristics which showed that the majority of the MSMEs have above-average refund performance in terms of age, sex, highest educational attainment, and length of business experience.

Table 6

Refund Performance of Participants in Terms of Owner Characteristics

Owners Characteristics		Refund Performance								Mean	Std. Dev.
		Above Ave.		Average		Below Ave.		Total			
		f	%	f	%	f	%	f	%	µ	%
A.	Age	87	95	2	2	3	3	92	100	97	12
	44 yrs old & below	22	24	1	1	0	0	23	25	98	5
	45 to 54 yrs old	23	25	0	0	2	2	25	27	94	22
	55 to 64 yrs old	25	27	1	1	1	1	27	29	97	8
	65 yrs old & above	17	18	0	0	0	0	17	18	100	1
B.	Sex	87	95	2	2	3	3	92	100	97	12
	Male	40	43	1	1	2	2	43	47	96	17
	Female	47	51	1	1	1	1	49	53	98	6
C.	Highest Educational Attainment	87	95	2	2	3	3	92	100	97	12
	HS & Post Sec. Grad.	3	3	0	0	0	0	3	3	100	0
	College Undergrad.	12	13	0	0	0	0	12	13	99	2
	College Grad.	63	68	1	1	3	3	67	73	96	14
	Post Bacc.	9	10	1	1	0	0	10	11	98	5
D.	Length of Business Experience	87	95	2	2	3	3	92	100	97	12
	5 yrs & below	5	5	0	0	2	2	7	8	79	39
	6 to 10 yrs	23	25	0	0	0	0	23	25	99	2
	11 yrs & more	59	64	2	2	1	1	62	67	98	6

Tables 7 to 13 show the differences among the product, process, organizational, and marketing innovations when MSMEs were classified according to location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size. The results revealed that location, number of employees, and size affect the active implementation of product innovations by MSMEs. Also, the number of employees and size influence the MSMEs' active implementation of organizational innovations. The result supported the finding of Llanto and Prado (2015) which concluded that size led firms to innovate. Moreover, it confirmed the finding of Albert et. al (2018) which states that firms in NCR and Balance Luzon, all other things equal, are more likely to be product innovators than firms in Mindanao (and other areas). However, the result did not support the finding that the size of the establishment is a significant determinant of process innovation only (Albert et. al, 2018).

All other firm characteristics do not affect product, process, organizational, and marketing innovations.

Table 7
Differences in Innovation Management of MSMEs by Location

	Innovation Management									
	Product Innovation						Process Innovation			
MSME Characteristics	New or Significantly Improved Goods		New or Significantly Improved Services		New or Significantly Improved Manufacturing Methods		New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Location	48	52	36	39	43	47	36	39	33	36
Aklan	11	12	8	9	8	9	6	7	6	7
Antique	6	7	5	5	7	8	5	5	6	7
Capiz	5	5	3	3	3	3	2	2	2	2
Guimaras	6	7	3	3	9	10	6	7	5	5
Iloilo	11	12	9	10	8	9	8	9	7	8
Negros Occ.	9	10	8	9	8	9	9	10	7	8

X²(5)=13.843, *p*=.017   X²(10)=1.224, *p*=.943

| | Organizational Innovation | | | | | | | | | | | |
| MSME Characteristics | New or Significantly Improved Supporting Activities | | New or Significantly Improved Knowledge Management Systems | | New Management Systems | | Significant Changes to the Organization of Work | | Significant Change to the Management Structure | | New or Significant Changes in its Relations with Other Establishments or Public Institutions | |
	f	%	f	%	f	%	f	%	f	%	f	%
Location	33	36	34	37	30	33	50	54	32	35	31	34
Aklan	6	7	4	4	4	4	6	7	6	7	5	5
Antique	6	7	5	5	5	5	5	5	3	3	5	5
Capiz	2	2	4	4	4	4	5	5	3	3	4	4
Guimaras	5	5	3	3	2	2	9	10	4	4	4	4
Iloilo	7	8	11	12	8	9	13	14	6	7	8	9
Negros Occ.	7	8	7	8	7	8	12	13	10	11	5	5

X²(25)=2.575, *p*=.765

	Innovation Management												
	Marketing Innovation												
MSME Characteristics	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Location	41	45	34	37	47	51	46	50	48	52	33	36	53	58
Aklan	6	7	4	4	7	8	5	5	6	7	5	5	8	9
Antique	6	7	6	7	6	7	6	7	7	8	5	5	6	7
Capiz	7	8	5	5	6	7	7	8	6	7	4	4	7	8
Guimaras	7	8	5	5	9	10	10	11	9	10	6	7	14	15
Iloilo	7	8	6	7	8	9	11	12	9	10	6	7	11	12
Negros Occ.	8	9	8	9	11	12	7	8	11	12	7	8	7	8

X²(30)=9.963, *p*=.076

Table 8
Differences in Innovation Management of MSMEs by Industry Classification

	Innovation Management									
MSME Characteristics	Product Innovation				New or Significantly Improved Manufacturing Methods		Process Innovation		New or Significantly Improved Supporting Activities	
	New or Significantly Improved Goods		New or Significantly Improved Services				New or Significantly Improved Logistics, Delivery, or Distribution Methods			
	f	%	f	%	f	%	f	%	f	%
Industry Classification	48	52	36	39	43	47	36	39	33	36
Food Proc.	35	38	24	26	30	33	25	27	24	26
Other Industries	13	14	12	13	13	14	11	12	9	10

X²(1)=11.452, *p*=.406   X²(2)=9.083, *p*=.614

| | Organizational Innovation | | | | | | | | | |
| MSME Characteristics | New or Significantly Improved Knowledge Management Systems | | New Management Systems | | Significant Changes to the Organization of Work | | Significant Change to the Management Structure | | New or Significant Changes in its Relations with Other Establishments or Public Institutions | |
	f	%	f	%	f	%	f	%	f	%
Industry Classification	34	37	31	34	50	54	33	36	32	35
Food Proc.	23	25	25	27	33	36	26	28	21	23
Other Industries	11	12	6	7	17	18	7	8	11	12

X²(5)=17.399, *p*=.097

| | Innovation Management — Marketing Innovation | | | | | | | | | | | | | |
| MSME Characteristics | Significant Changes to the Design | | Significant Changes to the Packaging | | Target New Customer Groups | | New Media or Techniques for Promotion | | New Sales Channels | | New Concepts for Product Presentation | | New Pricing Methods | |
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Industry Classification	41	45	34	37	47	51	46	50	48	52	33	36	53	58
Food Proc.	6	7	4	4	7	8	5	5	6	7	5	5	8	9
Other Industries	6	7	6	7	6	7	6	7	7	8	5	5	6	7

X²(6)=12.216, *p*=.348

Table 9
Differences in Innovation Management of MSMEs by Years in Operation

	Innovation Management									
MSME Characteristics	Product Innovation				New or Significantly Improved Manufacturing Methods		Process Innovation		New or Significantly Improved Supporting Activities	
	New or Significantly Improved Goods		New or Significantly Improved Services				New or Significantly Improved Logistics, Delivery, or Distribution Methods			
	f	%	f	%	f	%	f	%	f	%
Years in Operation	48	52	36	39	43	47	36	39	33	36
Startup	17	18	11	12	16	17	11	12	11	12
Growth	13	14	13	14	12	13	14	15	14	15
Maturity	10	11	8	9	10	11	8	9	6	7
Renewal/Decline	8	9	4	4	5	5	3	3	2	2

X²(3)=.320, *p*=.956   X²(6)=2.332, *p*=.506

| | Organizational Innovation | | | | | | | | | |
| MSME Characteristics | New or Significantly Improved Knowledge Management Systems | | New Management Systems | | Significant Changes to the Organization of Work | | Significant Change to the Management Structure | | New or Significant Changes in its Relations with Other Establishments or Public Institutions | |
	f	%	f	%	f	%	f	%	f	%
Years in Operation	34	37	31	34	50	54	33	36	32	35
Startup	14	15	9	10	17	18	8	9	12	13
Growth	13	14	13	14	14	15	15	16	8	9
Maturity	4	4	5	5	10	11	6	7	8	9
Renewal/ Decline	3	3	4	4	9	10	4	4	4	4

X²(12)=3.223, *p*=.358

| | Innovation Management — Marketing Innovation | | | | | | | | | | | | | |
| MSME Characteristics | Significant Changes to the Design | | Significant Changes to the Packaging | | Target New Customer Groups | | New Media or Techniques for Promotion | | New Sales Channels | | New Concepts for Product Presentation | | New Pricing Methods | |
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Years in Op.	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Startup	16	17	13	14	19	21	17	18	17	18	12	13	19	21
Growth	14	15	13	14	14	15	16	17	15	16	8	9	21	23
Maturity	8	9	5	5	8	9	8	9	9	10	7	8	9	10
Renewal/Decline	3	3	3	3	6	7	5	5	7	8	6	7	4	4

X²(18)=2.835, *p*=.418

Table 10
Differences in Innovation Management of MSMEs by Type of Ownership

MSME Characteristics	Product Innovation						Process Innovation			
	New or Significantly Improved Goods		New or Significantly Improved Services		New or Significantly Improved Manufacturing Methods		New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Type of Ownership	48	52	36	39	43	47	36	39	33	36
Single Prop.	36	39	25	27	34	37	29	32	23	25
Partnership	1	1	1	1	0	0	0	0	0	0
Corporation	11	12	10	11	9	10	7	8	10	11

X²(2)=2.776, *p*=.428   X²(4)=3.583, *p*=.310

MSME Characteristics	Organizational Innovation									
	New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Type of Ownership	34	37	31	34	50	54	33	36	32	35
Single Prop.	25	27	22	24	37	40	21	23	22	24
Partnership	1	1	0	0	2	2	1	1	1	1
Corporation	8	9	9	10	11	12	11	12	9	10

X²(8)=4.133, *p*=.247

MSME Characteristics	Innovation Management Marketing Innovation													
	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Type of Ownership	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Single Prop.	32	35	26	28	37	40	35	38	37	40	26	28	45	49
Partnership	1	1	0	0	1	1	1	1	1	1	1	1	1	1
Corporation	8	9	8	9	9	10	10	11	11	12	6	7	7	8

X²(12)=2.835, *p*=.418

Table 11
Differences in Innovation Management of MSMEs by Geographic Market

MSME Characteristics	Product Innovation						Process Innovation			
	New or Significantly Improved Goods		New or Significantly Improved Services		New or Significantly Improved Manufacturing Methods		New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Geographic Market	48	52	36	39	43	47	36	39	33	36
Local	36	39	25	27	31	34	26	28	25	27
National	4	4	4	4	7	8	4	4	4	4
Local, Nat'l & Other Countries	8	9	7	8	5	5	6	7	4	4

X²(4)=8.587, *p*=.072   X²(4)=2.562, *p*=.633

MSME Characteristics	Organizational Innovation									
	New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Geographic Market	34	37	31	34	50	54	33	36	32	35
Local	24	26	22	24	34	37	23	25	22	24
National	3	3	3	3	8	9	4	4	3	3
Local, Nat'l & Other Countries	7	8	6	7	8	9	6	7	7	8

X²(8)=6.079, *p*=.193

MSME Characteristics	Innovation Management Marketing Innovation													
	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Geographic Market	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Local	27	29	25	27	31	34	31	34	32	35	21	23	39	42
National	6	7	3	3	8	9	7	8	8	9	5	5	7	8
Local, Nat'l & Other Countries	8	9	6	7	8	9	8	9	9	10	7	8	7	8

X²(18)=5.151, *p*=.272

Table 12
Differences in Innovation Management of MSMEs by Number of Employees

	Innovation Management									
	Product Innovation						Process Innovation			
MSME Characteristics	New or Significantly Improved Goods		New or Significantly Improved Services		New or Significantly Improved Manufacturing Methods		New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
No. of Employees	48	52	36	39	43	47	36	39	33	36
1 to 9	36	39	25	27	31	34	26	28	25	27
10 & above	4	4	4	4	7	8	4	4	4	4

$X^2(1)=6.849$, $p=.009$ $X^2(2)=3.372$, $p=.066$

	Organizational Innovation									
MSME Characteristics	New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
No. of Employees	34	37	31	34	50	54	33	36	32	35
1 to 9	24	26	22	24	34	37	23	25	22	24
10 & above	3	3	3	3	8	9	4	4	3	3

$X^2(4)=4.370$, $p=.037$

	Marketing Innovation													
MSME Characteristics	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
No. of Employees	41	45	34	37	47	51	46	50	49	53	33	36	53	58
1 to 9	27	29	25	27	31	34	31	34	32	35	21	23	39	42
10 & above	6	7	3	3	8	9	7	8	8	9	5	5	7	8

$X^2(6)=.000$, $p=1.000$

Table 13
Differences in Innovation Management of MSMEs by Size

	Innovation Management									
	Product Innovation						Process Innovation			
MSME Characteristics	New or Significantly Improved Goods		New or Significantly Improved Services		New or Significantly Improved Manufacturing Methods		New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Size	48	52	36	39	43	47	36	39	33	36
Micro	21	23	11	12	18	20	16	17	12	13
Small	27	29	25	27	25	27	20	22	21	23

$X^2(1)=6.849$, $p=.009$ $X^2(2)=3.372$, $p=.066$

	Organizational Innovation									
MSME Characteristics	New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Size	34	37	31	34	50	54	32	35	32	35
Micro	15	16	14	15	23	25	10	11	14	15
Small	19	21	17	18	27	29	23	25	18	20

$X^2(4)=4.370$, $p=.037$

	Marketing Innovation													
MSME Characteristics	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Size	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Micro	18	20	14	15	21	23	22	24	24	26	17	18	29	32
Small	23	25	20	22	26	28	24	26	25	27	16	17	24	26

$X^2(6)=.000$, $p=1.000$

Tables 14 to 17 illustrate the differences among the product, process, organizational, and marketing innovations when participants were categorized in terms of owner's age, sex, educational attainment, and length of business experience. The results showed that all characteristics of the owner do not affect product, process, organizational, and marketing innovations.

Table 14
Differences in Innovation Management of MSMEs by Age

| Owner Characteristics | Product Innovation | | New or Significantly Improved Services | | New or Significantly Improved Manufacturing Methods | | Process Innovation | | New or Significantly Improved Supporting Activities | |
| | New or Significantly Improved Goods | | | | | | New or Significantly Improved Logistics, Delivery, or Distribution Methods | | | |
	f	%	f	%	f	%	f	%	f	%
Age	48	52	36	39	43	47	36	39	33	36
44 yrs old & below	15	16	12	13	15	16	13	14	11	12
45 to 54 yrs old	11	12	8	9	11	12	10	11	11	12
55 to 64 yrs old	12	13	10	11	11	12	6	7	5	5
65 yrs old & above	10	11	6	7	6	7	7	8	6	7

$X^2(3)=3.142, p=.534$ $X^2(6)=5.135, p=.274$

| Owner Characteristics | Organizational Innovation | | New Management Systems | | Significant Changes to the Organization of Work | | Significant Change to the Management Structure | | New or Significant Changes in its Relations with Other Establishments or Public Institutions | |
| | New or Significantly Improved Knowledge Management Systems | | | | | | | | | |
	f	%	f	%	f	%	f	%	f	%
Age	34	37	31	34	50	54	33	36	32	35
44 yrs old & below	11	12	9	10	13	14	8	9	8	9
45 to 54 yrs old	9	10	8	9	12	13	9	10	7	8
55 to 64 yrs old	10	11	9	10	18	20	12	13	13	14
65 yrs old & above	4	4	5	5	7	8	4	4	4	4

$X^2(12)=4.911, p=.297$

| Owner Characteristics | Marketing Innovation | | Significant Changes to the Packaging | | Target New Customer Groups | | New Media or Techniques for Promotion | | New Sales Channels | | New Concepts for Product Presentation | | New Pricing Methods | |
| | Significant Changes to the Design | | | | | | | | | | | | | |
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Age	41	45	34	37	47	51	46	50	49	53	33	36	53	58
44 yrs old & below	13	14	10	11	17	18	14	15	13	14	9	10	15	16
45 to 54 yrs old	12	13	11	12	17	18	12	13	13	14	6	7	15	16
55 to 64 yrs old	10	11	7	8	9	10	14	15	17	18	12	13	17	18
65 yrs old & above	6	7	6	7	5	5	6	7	6	7	6	7	6	7

$X^2(18)=8.223, p=.084$

Table 15
Differences in Innovation Management of MSMEs by Owner's Sex

| Owner Characteristics | Product Innovation | | New or Significantly Improved Services | | New or Significantly Improved Manufacturing Methods | | Process Innovation | | New or Significantly Improved Supporting Activities | |
| | New or Significantly Improved Goods | | | | | | New or Significantly Improved Logistics, Delivery, or Distribution Methods | | | |
	f	%	f	%	f	%	f	%	f	%
Sex	48	52	36	39	43	47	36	39	33	36
Male	24	26	20	22	21	23	17	18	19	21
Female	24	26	16	17	22	24	19	21	14	15

$X^2(1)=.104, p=.747$ $X^2(2)=1.374, p=.241$

| MSME Characteristics | Organizational Innovation | | New Management Systems | | Significant Changes to the Organization of Work | | Significant Change to the Management Structure | | New or Significant Changes in its Relations with Other Establishments or Public Institutions | |
| | New or Significantly Improved Knowledge Management Systems | | | | | | | | | |
	f	%	f	%	f	%	f	%	f	%
Sex	34	37	31	34	50	54	33	36	32	35
Male	17	18	17	18	25	27	17	18	17	18
Female	17	18	14	15	25	27	16	17	15	16

$X^2(4)=.755, p=.385$

| MSME Characteristics | Marketing Innovation | | Significant Changes to the Packaging | | Target New Customer Groups | | New Media or Techniques for Promotion | | New Sales Channels | | New Concepts for Product Presentation | | New Pricing Methods | |
| | Significant Changes to the Design | | | | | | | | | | | | | |
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Sex	41	45	34	37	47	51	46	50	49	53	33	36	53	58
Male	21	23	18	20	19	21	20	22	25	27	17	18	26	28
Female	20	22	16	17	28	30	26	28	24	26	16	17	27	29

$X^2(6)=.044, p=.834$

Table 16
Differences in Innovation Management of MSMEs by Educational Attainment of Owners

	Innovation Management								
	Product Innovation						Process Innovation		
Owner Characteristics	New or Significantly Improved Goods		New or Significantly Improved Services		New or Significantly Improved Manufacturing Methods		New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Highest Educational Attainment	48	52	36	39	43	47	36	39	33	36
HS & Post Sec. Grad.	3	3	2	2	3	3	2	2	2	2
College Undergrad.	6	7	4	4	6	7	4	4	3	3
College Grad.	34	37	24	26	29	32	27	29	23	25
Post Bacc.	5	5	6	7	5	5	3	3	5	5

$X^2(3)=.076$, $p=.962$ $X^2(6)=1.835$, $p=.400$

	Organizational Innovation								
Owner Characteristics	New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Highest Educational Attainment	34	37	31	34	50	54	33	36	32	35
HS & Post Sec. Grad.	1	1	1	1	1	1	0	0	1	1
College Undergrad.	2	2	1	1	5	5	2	2	4	4
College Grad.	27	29	24	26	39	42	27	29	24	26
Post Bacc.	4	4	5	5	5	5	4	4	3	3

$X^2(12)=5.184$, $p=.075$

	Innovation Management											
	Marketing Innovation											
Owner Characteristics	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Highest Educational Attainment	41	45	34	37	47	51	46	50	49	53	33	36	53	58
HS & Post Sec. Grad.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
College Undergrad.	5	5	3	3	6	7	7	8	6	7	3	3	5	5
College Grad.	28	30	25	27	34	37	32	35	36	39	25	27	40	43
Post Bacc.	6	7	4	4	5	5	5	5	5	5	3	3	6	7

$X^2(18)=1.810$, $p=.404$

Table 17
Differences in Innovation Management of MSMEs by Length of Business Experience

	Innovation Management								
	Product Innovation						Process Innovation		
Owner Characteristics	New or Significantly Improved Goods		New or Significantly Improved Services		New or Significantly Improved Manufacturing Methods		New or Significantly Improved Logistics, Delivery, or Distribution Methods		New or Significantly Improved Supporting Activities	
	f	%	f	%	f	%	f	%	f	%
Length of Bus. Experience	48	52	36	39	43	47	36	39	33	36
5 yrs & below	4	4	2	2	3	3	3	3	3	3
6 to 10 yrs	10	11	8	9	10	11	6	7	4	4
11 yrs & more	34	37	26	28	30	33	27	29	26	28

$X^2(3)=.076$, $p=.962$ $X^2(6)=1.835$, $p=.400$

	Organizational Innovation								
Owner Characteristics	New or Significantly Improved Knowledge Management Systems		New Management Systems		Significant Changes to the Organization of Work		Significant Change to the Management Structure		New or Significant Changes in its Relations with Other Establishments or Public Institutions	
	f	%	f	%	f	%	f	%	f	%
Length of Bus. Experience	34	37	31	34	50	54	33	36	32	35
5 yrs & below	5	5	2	2	4	4	0	0	2	2
6 to 10 yrs	8	9	5	5	11	12	5	5	7	8
11 yrs & more	21	23	24	26	35	38	28	30	23	25

$X^2(12)=5.184$, $p=.075$

	Innovation Management											
	Marketing Innovation											
Owner Characteristics	Significant Changes to the Design		Significant Changes to the Packaging		Target New Customer Groups		New Media or Techniques for Promotion		New Sales Channels		New Concepts for Product Presentation		New Pricing Methods	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Length of Business Experience	41	45	34	37	47	51	46	50	49	53	33	36	53	58
5 yrs & below	4	4	4	4	4	4	3	3	4	4	2	2	4	4
6 to 10 yrs	11	12	7	8	15	16	13	14	14	15	8	9	17	18
11 yrs & more	26	28	23	25	28	30	30	33	31	34	23	25	32	35

$X^2(18)=1.810$, $p=.404$

Tables 18 to 24 show the differences in MSME refund performance of the MSMEs when categorized according to location, industry classification, years in operation, type of ownership, geographic market, number of employees, and size. The results showed that all firm characteristics do not affect refund performance.

Table 18
Differences in MSME Refund Performance by Location

| MSME Characteristics | Refund Performance | | | | | | | |
| | Above Ave. | | Average | | Below Ave. | | Total | |
	f	%	f	%	f	%	f	%
Location	87	95	2	2	0	0	92	100
Aklan	12	13	0	0	0	0	12	13
Antique	12	13	0	0	2	2	12	13
Capiz	6	7	0	0	0	0	8	9
Guimaras	18	20	0	0	0	0	18	20
Iloilo	22	24	1	1	1	1	23	25
Negros Occ.	17	18	1	1	3	3	19	21

$X^2(10)=16.878$, $p=.077$

Table 19
Differences in MSME Refund Performance by Industry Classification

| MSME Characteristics | Refund Performance | | | | | | | |
| | Above Ave. | | Average | | Below Ave. | | Total | |
	f	%	f	%	f	%	f	%
Industry Classification	92	100	2	2	3	3	92	100
Food Processing	61	66	1	1	1	1	61	66
Other Industries	31	34	1	1	2	2	31	34

$X^2(2)=33.932$, $p=.050$

Table 20
Differences in MSME Refund Performance by Years in Operation

| MSME Characteristics | Refund Performance | | | | | | | |
| | Above Ave. | | Average | | Below Ave. | | Total | |
	f	%	f	%	f	%	f	%
Years in Operation	87	95	2	2	3	3	92	100
Startup	29	32	0	0	2	2	31	34
Growth	30	33	1	1	0	0	31	34
Maturity	16	17	0	0	1	1	17	18
Renewal/Decline	12	13	1	1	0	0	13	14

$X^2(6)=5.810$, $p=.445$

Table 21
Differences in MSME Refund Performance by Type of Ownership

| MSME Characteristics | Refund Performance | | | | | | | |
| | Above Ave. | | Average | | Below Ave. | | Total | |
	f	%	f	%	f	%	f	%
Type of Ownership	87	95	2	2	3	3	92	100
Single Prop.	67	73	2	2	2	2	71	77
Partnership	2	2	0	0	1	1	3	3
Corporation	18	20	0	0	0	0	18	20

$X^2(4)=5.810$, $p=.445$

Table 22
Differences in MSME Refund Performance by Geographic Market

| MSME Characteristics | Refund Performance | | | | | | | |
| | Above Ave. | | Average | | Below Ave. | | Total | |
	f	%	f	%	f	%	f	%
Geographic Market	87	95	2	2	3	3	92	100
Local	62	67	2	2	3	3	67	73
National	14	15	0	0	0	0	14	15
Local, Nat'l & Other Countries	11	12	0	0	0	0	11	12

$X^2(4)=1.973$, $p=.982$

Table 23

Differences in MSME Refund Performance by Number of Employees

| MSME Characteristics | Refund Performance | | | | | | | |
| | Above Ave. | | Average | | Below Ave. | | Total | |
	f	%	f	%	f	%	f	%
Number of Employees	87	95	2	2	3	3	92	100
1 to 9	45	49	2	2	1	1	48	52
10 and above	42	46	0	0	2	2	44	48

$X^2(8)=2.267$, *p*=.322

Table 24

Differences in MSME Refund Performance by Size

| MSME Characteristics | Refund Performance | | | | | | | |
| | Above Ave. | | Average | | Below Ave. | | Total | |
	f	%	f	%	f	%	f	%
Size	87	95	2	2	3	3	92	100
Micro	45	49	2	2	1	1	48	52
Small	42	46	0	0	2	2	44	48

$X^2(8)=2.267$, *p*=.322

Table 25 to 28 show the differences in the refund performance of the MSMEs when grouped according to the owner's age, sex, highest educational attainment, and length of business experience. The results revealed that the owner's long business experience affects the high refund performance of the MSME. Other characteristics of the owner do not influence refund performance.

Table 25

Differences in Refund Performance by Owner's Age

| Owners Characteristics | Refund Performance | | | | | | | |
| | Above Ave. | | Average | | Below Ave. | | Total | |
	f	%	f	%	f	%	f	%
Age	87	95	2	2	3	3	92	100
44 yrs old & below	22	24	1	1	0	0	23	25
45 to 54 yrs old	23	25	0	0	2	2	25	27
55 to 64 yrs old	25	27	1	1	1	1	27	29
65 yrs old & above	17	18	0	0	0	0	17	18

$X^2(8)=.507$, *p*=.776

Table 26

Differences in Refund Performance by Owner's Sex

| Owners Characteristics | Refund Performance | | | | | | | |
| | Above Ave. | | Average | | Below Ave. | | Total | |
	f	%	f	%	f	%	f	%
Sex	87	95	2	2	3	3	92	100
Male	40	43	1	1	2	2	43	47
Female	47	51	1	1	1	1	49	53

$X^2(8)=.507$, *p*=.776

Table 27

Differences in Refund Performance by Owner's Highest Educational Attainment

| Owners Characteristics | Refund Performance | | | | | | | |
| | Above Ave. | | Average | | Below Ave. | | Total | |
	f	%	f	%	f	%	f	%
Highest Educational Attainment	87	95	2	2	3	3	92	100
HS & Post Sec. Grad.	3	3	0	0	0	0	3	3
College Undergrad.	12	13	0	0	0	0	12	13
College Grad.	63	68	1	1	3	3	67	73
Post Bacc.	9	10	1	1	0	0	10	11

$X^2(8)=4.477$, *p*=.812

Table 28
Differences in Refund Performance by Owner's Length of Business Experience

Owners Characteristics	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f		f	%
Length of Bus. Exp.	87	95	2	2	3	3	92	100
5 yrs & below	5	5	0	0	2	2	7	8
6 to 10 yrs	23	25	0	0	0	0	23	25
11 yrs & more	59	64	2	2	1	1	62	67

$X^2(8)=16.457$, $p=.002$

Tables 29 to 32 show the relationship between refund performance and product, process, organizational, and marketing innovations. The results revealed, no significant relationships exist.

The result of this study supports the findings of Oliveira et al. (2018), Hai et al. (2022), Gimenez-Fernandez, et al. (2020), Yang & Aldrich, (2017), Zhu et al. (2019), Lee, (2021), all of which state that innovation does not always result to improved performance. Implementing any type of innovation involves risks. In the Philippine setting, the results of this study do not support the findings of Llanto and Prado (2015) that product and process innovations lead to an increase in sales and profits and improve labor productivity. The result does not confirm the standpoint of Schumpeter's Theory of Innovation that performance is influenced by the innovations of the firm.

Table 29
Relationship between Refund Performance and Product Innovation

Innovation Management	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Product Innovation								
New or Significantly Improved Goods	45	49	1	1	2	2	48	52
New or Significantly Improved Services	35	38	0	0	1	1	36	39

$X^2(2)=.141$, $p=.932$

Table 30
Relationship between Refund Performance and Process Innovation

Innovation Management	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Process Innovation								
New or Significantly Improved Manufacturing Methods	43	47	0	0	0	0	43	47
New or Significantly Improved Logistics, Delivery, or Distribution Methods	34	37	1	1	1	1	36	39
New or Significantly Improved Supporting Activities	32	35	0	0	1	1	33	36

$X^2(8)=1.631$, $p=.442$

Table 31
Relationship between Refund Performance and Organizational Innovation

Innovation Management	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Organizational Innovation								
New or Significantly Improved Knowledge Management Systems	32	35	0	0	2	2	34	37
New Management Systems	30	33	0	0	1	1	31	34
Significant Changes to the Organization of Work	46	50	1	1	3	3	50	54
Significant Change to the Management Structure	32	35	0	0	1	1	33	36
New or Significant Changes in its Relations with Other Establishments or Public Institutions	31	34	0	0	1	1	32	35

$X^2(8)=.902$, $p=.637$

Table 32
Relationship between Refund Performance and Marketing Innovation

Innovation Management	Refund Performance							
	Above Ave.		Average		Below Ave.		Total	
	f	%	f	%	f	%	f	%
Marketing Innovation								
Significant Changes to the Design	38	41	0	0	3	3	41	45
Significant Changes to the Packaging	32	35	0	0	2	2	34	37
Target New Customer Groups	43	47	1	1	3	3	47	51
New Media or Techniques for Promotion	43	47	1	1	2	2	46	50
New Sales Channels	45	49	1	1	3	3	49	53
New Concepts for Product Presentation	31	34	1	1	1	1	33	36
New Pricing Methods	49	53	1	1	3	3	53	58

$X^2(14)=3.103$, $p=.212$

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the specific objectives and the major findings of the study, the conclusions are discussed below.

Iloilo is a conducive place to engage in business given that it has the lowest consumer price index, slowest inflation rate, and highest purchasing power. The province is not readily affected by the increase in costs of products and services and consumers can purchase more goods and services from their income. Food is a basic need, thus, demand is relatively stable even during crises. The food processing industry is a lucrative and viable industry to venture into. Firms are relatively new. Thus, they are either testing their products in the market and sales are low or in the take-off where demand begins to accelerate; the market is expanding and sales are increasing.

Registering a business as a single proprietorship is the easiest in the Philippines. The registration process is relatively straightforward and requires a minimum amount of capital. It has also minimal regulations and compliance requirements from government agencies and is the easiest to run since no necessary formalities or regulations are required unlike corporations and partnerships, which are required to have board meetings, board elections, and share capital, among others.

A strong local customer base is important to sustain the business among MSMEs, especially during crises. Even with the archipelagic nature of regions, MSMEs can easily transport their products given the availability of roll-on, and roll-off (RORO) heavy freight shipping. It allows MSMEs to ship large quantities of goods in a single delivery to any part of the region. There are also numerous available third-party deliveries or also known as 3PLs that enables businesses to outsource operational logistics from warehousing down to delivery which offers easy-to-use, free application, realistic and affordable prices.

The number of workers hired by the MSMEs depends on their existing capacity. Since the majority are relatively new and very small, they also need a small number of workers. Owners and family members are often the ones that are hired to perform multiple tasks as a cost-saving measure to minimize labor costs and thus, increase profit.

They remain to be micro-enterprises considering the numerous challenges they face such as limited access to finance, high cost of doing business, limited access to markets, low productivity and efficiency, and vulnerability to natural hazards. The situation is aggravated by the occurrence of the COVID-19 pandemic where the MSMEs experienced reduced operating hours, production volume, and loss of employees. All these factors limit the MSMEs' transition from micro to small and small to large enterprises.

At the age of 55 to 64 years old, the owners have accumulated adequate knowledge, skills, and business experience to run the business. They have also the necessary funds that could be invested to expand the business. Furthermore, the business is often registered under the name of the wives who are left at home and are tasked to manage the business while the husband works on a regular job. This is to initially have a steady income from the husband's regular job while the business is just starting thus, minimizing the risk for the family.

Women are also more interested in school so they are more likely to graduate from college. Given their education, they are very capable to manage a business. Lastly, women have the patience to manage the business over a long period of time until such time that they turn over the management to their trained successor.

Regardless of the firm and owner's profile, their innovation management remains the same. MSMEs are producing better and more usable products demanded by the market to stay competitive and increase profit. There is a continual development of goods or products given the changing customer preference and because of the stiff competition from local and imported goods. E-commerce has intensified competition since imported goods can be readily bought and delivered to the customer's doorstep. The company introduces new manufacturing methods to accommodate the

production of new products and to increase productivity. The production of new products would significantly affect their production line since new steps may be added or removed.

Moreover, MSMEs are implementing changes to the organization of work in the company such as improving employee decision-making and responsibility to ensure a smooth flow of operation. Problems may arise at any time that should be addressed promptly to prevent delays and unnecessary waiting periods which can affect customer satisfaction and sales. MSMEs are introducing new pricing methods to market goods or services because customers are price-sensitive. Since most MSMEs are engaged in food processing which has numerous competitors, customers tend to be more price sensitive. Changes in the price of goods or services would affect customers' buying decisions thus, MSMEs take precautions in adjusting their prices. They have also adjusted the prices given the increase in the prices of raw materials which can be attributed to inflation.

Notwithstanding the firm and owner characteristics, their refund performance remains comparable so that they can avail again of financial assistance from different institutions.

Location plays a critical role to fuel product innovations of business enterprises given that a strategic location facilitates easy access to sources and suppliers of materials, transportation, labor, utilities, and customers, among others. They can also readily be tapped by institutions that provide assistance with product innovations.

The number of employees and the size of the firm also affect its capacity to implement product innovation since the creation of new products requires several workers and investment from the company. Executing product innovations would require buying raw materials that may not be available locally so the company may need to import as well as acquire new equipment. These additional costs can only be afforded by huge firms. Firms that are huge enough are more likely to take risks in producing new products to become more competitive in the market. In other words, big firms have more available funds than small firms that can be utilized to produce new products despite the risks involved.

Moreover, firms that employ many employees are active in implementing organizational innovations because this is critical given their relatively complicated operations. Numerous problems arise at any time and the persons who make the decisions should be identified to prevent conflicts, delays, and unnecessary waiting periods. These factors if taken into account can assist firms to minimize the risk of failed innovations.

Other characteristics of the owner and the firm may have come into play not covered in the study that may have an effect on product, process, organizational, and marketing innovations.

Notwithstanding the firm characteristics such as location, industry classification, years in operation, type of ownership, geographic market, and size, their refund performance remains comparable. Other characteristics of the firm may come into play not covered in the study that may have an effect on refund performance.

The owners of MSMEs that have long business experience are more committed to refunding or repaying their financial obligations because they want to maintain their creditworthiness. They do not want to taint their long years of credit history, this way, they can avail again of financial assistance. Debt-to-income ratio decreases when firms pay their debts as it becomes due thus, improves the owner's capacity to pay. As a result, many agencies would like to engage in business with them.

Regarding the relationship between innovation management and refund performance, it is concluded that other factors in innovation management may have come into play that would have a relationship with refund performance that are not covered in the study.

Recommendations

The recommendations based on the major findings and conclusions are discussed in the succeeding paragraphs and are grouped into three namely, for the MSMEs and owners, for DOST, and for DTI, LGUs, academe, and other agencies involved in MSME development.

For the MSMEs and owners, it is suggested that they locate their businesses in areas that nurture their development. They need to consider engaging or expanding in high-growth sectors and industries to sustain and expand their businesses even during a crisis so that they can overcome the startup stage and move toward the growth phase. Moreover, MSMEs need to ensure that their businesses are operating legally by registering them with the concerned agencies. They need to build a strong local market first before they expand to other markets which is critical in sustaining their operation even during times of crisis. They need to balance the number of their workers to the scale of their existing operations.

MSMEs should likewise, continually produce new products; implement new manufacturing methods; improve employee decision-making and responsibility; and enhance pricing methods.

Moreover, owners of MSMEs should capacitate themselves on product, process, and organizational innovations so that they can improve their businesses. They should make good in repaying the assistance provided to them to maintain a good creditworthiness rating. This way, many agencies would want to engage in business with them.

Most importantly, MSMEs and entrepreneurs that are actively engaged in product innovations need to locate their businesses in strategic areas that aggressively promote product innovation. Likewise, MSMEs need to have 10 or more employees and are classified as small to medium when they engage in product innovations. This way, they are better equipped to introduce product innovation and minimize the risks of failed innovations.

For the DOST, to continue providing innovative solutions to the bottlenecks experienced by MSMEs as well as provide the owners with training and capacity-building on innovation so that they can continually improve their businesses. In promoting and providing assistance to MSMEs, their location, number of employees, and size should be considered so that they can fully benefit from the support. For instance, the Department can target small and medium enterprises in relatively developed areas for product improvement and/or development because they are more equipped. Then, refer to DTI and other agencies the micro-enterprises for marketing and organizational assistance.

It is also recommended that it continues to provide financial support for innovation to MSMEs. The length of business experience may be included in the criteria for evaluating proposed projects to be provided with innovation funds. The agency should monitor the innovation practices among MSMEs and analyze the factors affecting them. The regular conduct of a survey on innovation is vital to better understand, manage, and mainstream innovation. Lastly, consider implementing the research-based enhanced version of the SETUP.

For the DTI, LGUs, academe, and other agencies involved in MSME development, there is a need to have a strong collaboration to better assist the MSMEs in different aspects of innovation. For instance, DTI collaborates with the academe which has experts in marketing and organizing. Likewise, financial support to MSMEs needs to be continued. Consider serving more MSMEs with owners that are more mature, college graduates, and have long years of business experience. Also, to ensure the participation of both men and women since Gender and Development (GAD) is now mainstreamed in implementing projects in the country. LGUs may create enabling policies to improve the business environment and promote innovative projects thus, creating a more favorable business environment for MSMEs to grow.

Innovation is rather multifaceted that participation of all concerned agencies is critical. The importance of adopting a whole-of-government approach in assisting MSMEs cannot be overemphasized. The MSMEs should be provided with a complete package of assistance so they can transition from micro to small, to medium, and eventually to large enterprises and become strong drivers of the country's economic growth.

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Financial Flexibility, Corporate Governance, and Enterprise Value among A-Share Listed Companies in China

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Abstract

This study aimed to determine the financial flexibility, corporate governance, and enterprise value among A-share listed companies in China from 2011 to 2020. This descriptive-correlational research involved 365 A- share listed companies in China. The study utilized secondary data collected from Wind and CSMAR databases. Data collected were processed and statistically analyzed using the STATA15.0. Study results revealed that, overall, the level of financial flexibility was *not high*. Specifically, cash flexibility was also *not high*, and with some A-share listed companies reserve debt flexibility. In terms of corporate governance, more than half of the companies had *low internal governance*, and nearly half of the enterprises had *moderate external governance*. Based on Tobin's Q value, taken as an entire group, Chinese A-share listed companies were able to achieve their asset preservation and appreciation goals and the market value of most Chinese A-share listings was *low*. In terms of ROA, the overall profitability of Chinese A-share listed companies was *not high*, of which, majority had *moderate* ROA. On the whole, the ROE was *not high*, but most companies registered *high* ROE. Furthermore, financial flexibility had a *positive* promoting effect on enterprise value. Finally, the improvement of the external governance environment was conducive to the improvement of ROA and ROE; hence, as the level of internal governance improves, the ROE likewise improves.

Keywords: *Financial Flexibility, Corporate Governance, Enterprise Value*

INTRODUCTION

Background and Rationale of the Study

China's annual GDP for 2021 was 1,143,670 billion yuan, which revealed an increase of 8.1% higher than the previous year, and the two-year average growth was 5.1%. Amidst the impact of the COVID-19 pandemic, China continues to facilitate a high-quality development of the industry and takes appropriate courses of action to accelerate the development of modern industry system. The supply system toughness has been further enhanced, showing the world a strong resilience and vitality of the Chinese economy (China Economic Herald, 2021).

With China's high-quality economic development, the A-share market in China has been developing quickly; hence, Shanghai and Shenzhen had nearly 4,250 listed companies at the end of 2020. The total market capitalization was nearly 80 trillion yuan, making it the world's second largest stock market (National Development and Reform Commission, 2021).

The stock market has made valuable contributions to China's economic development which could be attributed squarely to good corporate governance. Hence, to provide a valuable reference for understanding how much has been improved in Chinese corporate governance and the main ambition of future reform efforts, the China Securities Regulatory Commission, conducted an assessment of broad range of laws, regulations and codes and the results showed that the stock market has been improved significantly since it was created in 1990. Generally, the A-share listed companies in China show a good development trend and the market value of enterprises increases year by year but their growth mode is relatively extensive and the characteristics of "large but not strong" are still prominent. It has been observed in recent years, however, that the quality of the firm's internal and external governance mechanism and the enterprise financial flexibility policy affect the enterprise value. Holding and reasonably reserving financial flexibility can help companies withstand future adverse shocks, seize favorable investment opportunities, reduce financial risk, and thus increase enterprise value. In terms of corporate governance, there are

still some unfavorable factors, such as high equity concentration, low degree of separation of two rights, imperfect external legal system, unbalanced marketization process, among others, despite of the government efforts to introduce policies aimed at standardizing the governance of listed companies gradually (Zheng, 2016).

In the light of the foregoing, the researcher decided to choose the information of A-share listed companies in China for the past ten years and analyzed empirically the relationship between financial flexibility, corporate governance, and firm value which can be used as bases to help promote the China's economy to achieve high-quality development.

Objectives of the Study

This study aimed to determine the financial flexibility, corporate governance, and enterprise value among A-share listed companies in China from 2011 to 2020.

Specifically, this study sought answers to the following objectives:

1. Determine the financial flexibility in terms of cash flexibility, and debt flexibility.

2. Determine corporate governance in terms of internal governance and external governance.

3. Determine the enterprise value in terms of Tobin's Q value, ROA and ROE.

4. Determine the relationship between financial flexibility and enterprise value.

5. Determine the relationship between corporate governance and enterprise value.

Hypotheses of the Study

1. There is no significant relationship between financial flexibility and enterprise value.

2. There is no significant relationship between corporate governance and enterprise value.

Conceptual Framework
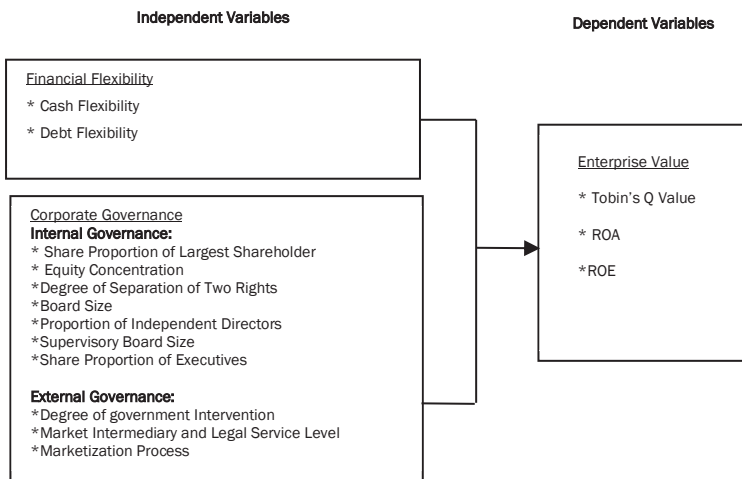
Figure 1. The conceptual Framework of the study

Significance of the Study

The results of this study would provide significant benefits to the following:

Chinese A-share Listed Companies. The findings of this study can help managers of listed companies to improve their awareness of financial flexibility, help enterprises seize favorable opportunities in an uncertain environment, resist adverse risk impact, and improve adaptability in an uncertain environment. It also enables companies to seize opportunities for favorable investment. Moreover, it can help to strengthen the internal governance of Chinese A-share listed companies.

Chinese Local Government. The research results provide theoretical support for local government units in the regions because they are provided with empirical data on how to improve their services, optimize and improve market access, create a business environment for fair competition and healthy development, build a unified, open, competitive, and orderly market system, and achieve coordinated regional economic development.

Capital Market Regulatory Authorities. The results of the study can provide theoretical and data support for China Securities Regulatory Commission and governments at all levels in the formulation of

policies so as to create a constantly sound and perfect legal and market environment for the survival and development of enterprises.

Employees. With the increasing value of enterprises, employees can not only obtain an increase in income level, but also obtain more development opportunities, which is conducive to promote the realization of self-worth among employees.

Academe. The results could be used as the basis of universities and colleges in developing cases in good governance and financial management courses for use of both faculty and students in class instruction.

Future Researchers. Other researchers would gain significant benefits from this study because the methodology, findings, and conclusions in this study can be used as their bases when conducting similar or related studies in the future.

Scope and Limitation

This study, which aimed to determine the financial flexibility, corporate governance and enterprise value among A-share listed companies in China from 2011 to 2020, utilized the descriptive-correlational research design.

This study used secondary data which were taken from Wind and CSMAR databases. The subjects of this study were 365 A-share listed companies which were randomly selected from a population of 3,949 A-listed companies. The collected data were encoded and processed using the Stata 15.0. The encoded data were statistically treated to analyze the data using the appropriate statistical tools for Frequency Count，Percentage Analysis, Mean, Entropy Method and Inferential Statistics.

METHODOLOGY

Research Design

This study used descriptive-correlational research design. This research design is appropriate to be used to determine the relationship between financial flexibility, corporate governance, and enterprise value.

Subjects of the Study

The subjects of this study were 365 A-share listed companies which were randomly selected from

a population of 3,949 A-listed companies, using a sample size determination formula. A stratified random sampling method was also used to ensure that the industry involved in this study were proportionately represented as shown in Table.

Table 1

Distribution of Subjects by Industry

Industry Code	Industry	N	n	%
A	Agriculture, forestry, animal husbandry and fishery	39	4	1.10
B	Mining industry	72	7	1.92
C	Manufacturing industry	2,637	243	66.58
D	Electricity, heat, gas and water production and supply	114	10	2.74
E	Construction industry	96	9	2.47
F	Wholesale and retail	164	15	4.11
G	Transportation, warehousing and postal services	103	9	2.47
H	Hotel and catering sectors	7	1	0.27
I	Information transmission, software and information technology services	332	31	8.49
K	Real estate	106	10	2.74
L	Leasing and business services	55	5	1.37
M	Scientific research and technology services	62	6	1.64
N	Water conservancy, environment and public facilities management	74	7	1.92
O	Residential services, repairs and other services	1	0	0.00
P	Education	11	1	2.74
Q	Health and social work	10	1	2.74
R	Culture, sports and entertainment	56	5	1.37
S	Public administration, social security and social organization	10	1	2.74
Total		3,949	365	100

Data Gathering Procedure

This study used secondary data, which were collected from the Wind database and CSMAR database, with a sample size of 365 A-share listed companies in Shanghai and Shenzhen from 2011 to 2020.

Data-Processing and Analysis

Data were downloaded from the Wind and CSMAR database and sorted into panel data. The collected data was processed by EXCEL2016 and STATA15.0. Frequency Count，Percentage Analysis, Mean, Entropy Method and Inferential Statistics were used to analyze the data.

In this study, the entropy method is used to synthesize the Share Proportion of the Largest Shareholder, Equity Concentration, Separation of Two Rights, Board Size, Proportion of Independent Directors, Board Size, Shareholding Ratio of Senior Executives, and Executive Compensation into internal governance, and the three indicators of Degree of Government Intervention, Market Intermediary and Legal Service Level, and Marketization Process are synthesized into external governance.

RESULTS AND DISCUSSION

Descriptive Data Analysis
Financial flexibility

Table 2 describes financial flexibility in terms of cash flexibility, debt flexibility.

Cash Flexibility. Cash flexibility with a mean value of 0.004, indicating that the overall level of cash flexibility of Chinese A-share listed companies is not high and there are large differences in cash flexibility management among companies. This finding is consistent with Song (2021) and Jiang (2022). From frequency of cash flexibility, 1502 (60.13%) are low cash flexibility, 791 (31.67%) are moderate cash flexibility, 205 (8.21%) are high cash flexibility. This finding is consistent with Song (2021) and Jiang (2022).

Debt Flexibility. The mean value of debt flexibility is 0.095, indicating that only some A-share listed companies reserve debt flexibility. From frequency of debt flexibility, 1708 (68.37%) are low debt flexibility, 547 (21.90%) are moderate debt flexibility, 243 (9.73%) are high debt flexibility, indicating that there are large differences in debt flexibility management among companies. And overall, the level of financial flexibility management among Chinese A-share listed companies is not high, and this finding is similar to the findings of Tian (2016) and Dai (2017).

Table 2

Frequency of Cash Flexibility, Debt Flexibility

Category	m	f	%
Cash Flexibility			
Low (-.219, 0.003)		1,502	60.13
Moderate (0.004, 0.225)	0.004	791	31.67
High (0.226, 0.448)		205	8.21
Debt Flexibility			
Low (0, 0.14)		1,708	68.37
Moderate (0.15, 0.28)	0.095	547	21.90
High (0.29, 0.42)		243	9.73

Corporate governance

Table 3 describes corporate governance in terms of CGI and CGE

Internal corporate governance. From frequency of internal corporate governance, 1655 (66.25%) are low internal governance, 819 (32.79%) are moderate internal governance, 24 (0.96%) are high internal governance. The mean value is 0.0004003, which means that more than half had low internal governance This finding is consistent with Song (2021) and Jiang (2022).

External Governance. From frequency of external governance, 640 (25.62%) are low external governance, 1215 (48.64%) are moderate external governance, 643 (25.74%) are high external governance. The mean value is 0.0004003, indicating that nearly half of the enterprises had moderate external governance. This finding is consistent with Zheng (2016) and Xue (2022).

Table 3
Frequency of Internal Governance and External Governance

Category	m	f	%
Internal Governance			
Low (0.0001326, 0.0004569)		1655	66.25
Moderate (0.0004570, 0.0007812)	0.0004003	819	32.79
High (0.0007813, 0.0011055)		24	0.96
External Governance			
Low (0.000045, 0.0002761)		640	25.62
Moderate (0.0002762, 0.0005072)	0.0004003	1215	48.64
High (0.0005073, 0.0007383)		643	25.74

Enterprise value

Table 4 describes enterprise value in terms of Tobin's Q value, ROA and ROE.

Tobin's Q value. The mean value of Tobin's Q value is 2.6, which is greater than 1, indicating that Chinese A-share listed companies as a whole are able to achieve their asset preservation and appreciation goals. From the frequency of Tobin's Q Value, 2140 (85.67%) are low Tobin's Q Value, 280 (11.21%) are moderate Tobin's Q Value, 78 (3.12%) are high Tobin's Q Value. Overall, the market value of most Chinese A-share listings is low. This finding is consistent with the findings of Wu (2019) and Gu (2021).

Return on total assets (ROA). The mean value of return on total assets (ROA) is 0.045, indicating that the overall profitability of Chinese A-share listed companies using all assets is not high. From the frequency of ROA, 8 (0.32%) are low ROA, 2449 (98.04%) are moderate ROA, 4 (1.64%) are high ROA, which indicates that almost all companies have moderate ROA, and this finding is consistent with the findings of Lin (2022), Wang (2022) are consistent.

Return on equity (ROE). The mean value of return on equity (ROE) is 0.074, indicating that the ability of Chinese A-share listed companies to obtain net income from their own capital is not high, as it is generally considered that a return on net assets of 15%-40% is more appropriate (Zhang, 2019). From the frequency of ROE, 56 (2.24%) are low ROE, 90 (3.60%) are moderate ROE, 2352 (94.16%) are high ROE, indicating that most companies have a high ROE, which is consistent with the findings of Song (2021), Wei (2021) and He (2022).

Table 4
Frequency of Tobin's Q Value, ROA and ROE

Category	Mean	f	%
Tobin's Q Value			
Low (.399, 4.276)		2140	85.67
Moderate (4.277,8.153)	2.6	280	11.21
High (8.154, 12.03)		78	3.12
Return on Total Assets			
Low (-1.005, -0.398)		8	0.32
Moderate (-0.397, 0.209)	0.045	2,449	98.04
High (0.210, 0.816)		4	1.64
Return on Equity			
Low (-.591, -.268)		56	2.24
Moderate (-.267,.055)	0.074	90	3.60
High (.056,.379)		2,352	94.16

Inferential Data Analysis
Relationship between Financial Flexibility and Enterprise Value

Relationship between Financial Flexibility and Enterprise Value. Table 4 showed the regression between financial flexibility and Tobin's Q value of Chinese A-share listed companies. The regression results (1) showed that the coefficient of cash flexibility was 0.849 and cash flexibility was positively correlated to Tobin's Q value at the level of 1%, indicating that cash flexibility has a positive role in promoting Tobin's Q value. This result was consistent the findings of Tang and Wang (2018). Regression results (2) show that the coefficient of debt flexibility was 2.460, and debt flexibility was positively correlated to Tobin's Q value at the level of 1%, indicating that debt flexibility has a positive effect on Tobin's Q value. This result affirmed the findings of Chen (2020).

Relationship between Financial Flexibility and ROA. Table 4 shows the regression between financial flexibility and ROA. The coefficient of cash flexibility in regression results (3) was 0.0982. The cash flexibility was positively correlated to the ROA at the level of 1%, indicating that cash flexibility has a positive role in promoting the ROA. This finding was consistent with Yang (2017). Regression results (4) show that the coefficient of debt flexibility was 0.109. The debt flexibility was positively correlated to the ROA at the level of 1%, indicating that debt

flexibility has a positive role in promoting the ROA. This finding was consistent with Yang (2017).

Relationship between Financial Flexibility and ROE. Table 5 showed the regression between financial flexibility and ROE. The coefficient of cash flexibility indicated that the regression results (5) was 0.130. The cash flexibility was positively correlated to ROE at the level of 1%, indicating that cash flexibility has a positive role in promoting ROE. This result supported the findings of Chen (2020). Regression results (6) showed that the coefficient of debt flexibility was 0.0892. The debt flexibility was positively correlated to ROE at the level of 5%, indicating that debt flexibility has a positive role in promoting ROE. This finding was consistent with Xu (2016).

Table 5
Relationship between Financial Flexibility and Enterprise Value

	(1) Tobin's Q Value	(2) Tobin's Q Value	(3) ROA	(4) ROA	(5) ROE	(6) ROE
Cash Flexibility	0.849***		0.0982***		0.130***	
	(2.85)		(6.23)		(5.14)	
Debt Flexibility		2.460***		0.109***		0.0892**
		(5.81)		(4.80)		(2.45)
_cons	2.419***	2.126***	0.0722***	0.0616***	0.123***	0.117***
	(25.59)	(19.53)	(14.42)	(10.59)	(15.31)	(12.44)
N	2498	2498	2498	2498	2498	2498
R^2	0.236	0.245	0.062	0.056	0.053	0.044
adj. R^2	0.101	0.112	-0.103	-0.111	-0.114	-0.124

t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Relationship between Corporate Governance and Enterprise Value

Relationship between Corporate Governance and Tobin's Q Value. Table 6 showed that coefficient in regression results (1) was not significant, indicating that there was no significant relationship between internal governance and Tobin's Q value. As Shang and Wang (2014) pointed out, the internal governance has a negative impact on enterprise value Tobin's Q. Regression results (2) showed that the regression coefficient was not significant. This implied that there was no significant correlation between external governance and Tobin's Q value. Tan et al. (2011) pointed out that external governance has a significant impact on Tobin's Q value.

Relationship between Corporate Governance and ROA. Table 5 showed the regression coefficient between internal governance and ROA in regression results (3) was not significant, indicating that there was no significant correlation between internal governance and ROA. As Ye (2021) pointed out, there was a significant positive correlation between internal governance and ROA. Regression results (4) showed that the coefficient of external governance was 116.4. The external governance was positively correlated with ROA at the level of 1%, indicating that external governance has a positive role in promoting the ROA. This research finding was contrary to Zheng (2016).

Relationship between Corporate Governance and ROE. Table 5 showed that the coefficient between internal governance and ROE in regression (5) was 48.21. The internal governance was positively correlated to ROE at the level of 10%, indicating that internal governance has a positive role in promoting ROE, which was consistent with Wei (2021). Regression results (6) showed that the regression coefficient between external governance and ROE was 153.6, indicating that external governance has a positive role in promoting ROE. This finding was consistent with Qin (2012).

Table 6
Relationship between Corporate Governance and Enterprise Value

	(1) Tobin's Q Value	(2) Tobin's Q Value	(3) ROA	(4) ROA	(5) ROE	(6) ROE
Internal Governance	91.75		20.48		48.21*	
	(0.31)		(1.31)		(1.92)	
External Governance		850.6		116.4***		153.6**
		(1.06)		(2.72)		(2.23)
_cons	2.413***	2.210***	0.0674***	0.0430***	0.108***	0.0848***
	(15.49)	(8.95)	(8.11)	(3.26)	(8.11)	(4.01)
N	2498	2498	2498	2498	2498	2498
R^2	0.233	0.233	0.046	0.049	0.043	0.044
adj. R^2	0.098	0.098	-0.122	-0.119	-0.126	-0.125

t statistics in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. The overall level of financial flexibility was not high. Specifically, cash flexibility cash flexibility level was not high, and only some A-share listed companies reserve debt flexibility.

2. In terms of corporate governance, more than half had low internal governance, and nearly half of the enterprises had moderate external governance.

3. Based on Tobin's Q value, Chinese A-share listed companies, taken as an entire group, implied that the companies were able to achieve their asset preservation and appreciation goals. However, the overall, the market value of most Chinese A-share listings was low. In terms of ROA, the overall profitability of Chinese A-share listed companies was not high, of which majority had moderate ROA. The ROE was not high but most companies registered high ROE.

4. The financial flexibility has a positive promoting effect on enterprise value, and the improvement of financial flexibility is conducive to the improvement of enterprise value of Chinese A-share listed companies.

5. The external governance has a positive contribution to ROA and ROE, while internal governance has a positive contribution to ROE. The improvement of the external governance environment is conducive to the improvement of ROA and ROE; hence, as the level of internal governance improves, the ROE also increases accordingly.

Recommendations

Based on the above findings and conclusions, relevant policy suggestions are advanced:

For Chinese A-share listed companies. The financial flexibility and corporate governance can be improved based on the following recommendations with the end in view of enhancing enterprise value.

In the face of the larger external financing constraints in the new economic normal period and the transformation process of "de-capacity", "de-leveraging" and "de-inventory". The Chinese A-share listed companies should enhance the awareness of financial flexibility reserve, establish the concept of moderate reserve financial flexibility, and maintain a moderate flexibility structure by fully considering the strategic objectives of the enterprise and the actual needs of the enterprise when reserving financial flexibility. In addition, enterprises can obtain excess cash holdings through improving operational efficiency and strengthening asset management, as well as good corporate credit to obtain residual debt raising capacity. The financial flexibility structure and the level of flexible holdings should be adjusted in a timely manner according to the changes in the internal and external environment of the enterprise, especially the reserve of debt flexibility should be

highly concerned in order to avoid the cost pressure brought by high holdings for the enterprise.

The Chinese A-share listed companies should improve corporate governance with emphasis on equity checks and balances to prevent excessive concentration, strengthen the checks and balances of other major shareholders on the first major shareholders, and protect the interests of small and medium-sized shareholders. The enterprise should improve the separation system of two rights, and should eliminate the situation wherein the owner of the company concurrently serves as the general manager. Although independent directors comply with relevant laws and regulations, when selecting independent directors, they must fully consider their professional level, ability to perform their duties and the pertinence to the needs of the company, strengthen the information disclosure of independent directors and controlling shareholders of the company and other stakeholders, and enhance complete independence through involvement of more independent directors to ensure that independent directors can fully play their due role in corporate governance. The size of the board of supervisors shall comply with the provisions of the Company Law, shall maintain independence and professionalism, and shall supervise the enterprise's behavior on behalf of different interested groups, and shall safeguard the legitimate rights and interests of the shareholders of the company. It is also recommended to improve the incentive mechanism for senior executives so as to improve their enthusiasm for work, and shall make sound decisions from the perspective of profit maximization. The company's long-term operating performance can be improved through enhancement of executive compensation package and incentives to encourage executives to work hard to create higher enterprise value so as to avoid the short-sighted behavior among executives. The enterprises can implement equity incentive system, appropriately give enterprise managers to avail of virtual stocks and stock options with the mutual obligation in sharing enterprise risks, improve managers' income so as to encourage them to work hard for the common good, improve the company's operating efficiency, and promote the improvement of enterprise value.

For Local Government. There should be close coordination between the local government and the Chinse A-share listed companies to promote the decentralization, decentralization, and optimization of services, optimize and improve marketization process and exit policies in all aspects, reduce systemic transaction costs, innovate supervision methods and minimize government intervention in enterprises in order to maximize market vitality and

social creativity and create a business environment of fair competition and healthy development for Chinese A-share listed companies. In response to the current situation of unbalanced regional economic development, the Yangtze River economy is required to drive the central and western parts of the country to optimize industrial structure, accelerate the transformation of economic development and change growth momentum. Strengthen the orderly transfer of industries in the east, central and West so that the eastern region can rely on location, technology, industrial advantages, targeting the key areas of world economic development, and actively participate in global economic competition. The central and western regions can actively undertake the transfer of industries in the eastern region, shut down backward production capacity elimination, forcing industrial transformation and upgrading and high-quality development. Efforts should be encouraged to break down regional market barriers, smooth the free flow of labor, capital, technology and other factors between regions, optimize the allocation of channels, accelerate the construction of a unified and open, competitive and orderly market system, and gradually narrow the gap between regional economic developments, to achieve coordinated regional economic development. Through the joint efforts of the government, market intermediaries, legal service institutions and enterprises, creation of good external environment for the development of Chinese A-share listed companies can be made possible so as to promote improvement of their enterprise value.

For Capital Market Regulators. A capital market should be enhanced to provide a broader and fairer financing platform for China's listed companies. The national financial institutions should continue to promote a number of financial reforms in parallel, such as inclusive finance, green finance, and science and innovation finance, expand the coverage of digital inclusion to improve the financial service network, and increase the accessibility of inclusive finance to meet the diversified financial needs of Chinese A-share listed companies in order to improve the efficiency of debt financing of companies, which in turn, will help to enhance the value of enterprises.

For Employees. With the improvement of their financial flexibility, corporate governance and enterprise value, the employees will not only gain the increase of family wealth but also obtain more growth opportunities. The company needs to define different sequences of position qualifications, integrate the long-term development vision of the company and personal career goals, design a clear and fair career development channel for employees, and combine with employee training and performance management to form a talent echelon construction plan, improve employees' sense of belonging to the company, reduce employee turnover rate, and achieve sustainable development of human resources. In addition, enterprises can also provide more training opportunities for employees, employees should also actively participate in various vocational skills and professional knowledge training, in order to have the corresponding professional behavior ability. Enterprises should also strengthen the professional behavior of employees, and employees themselves need to regulate their own behavior in accordance with corporate management requirements to promote the realization of business operation processes, so as to improve the operational performance of enterprises and promote corporate profitability, ultimately leading to the improvement of the enterprise value.

For researchers. The results of this study will expand the research perspective of factors affecting enterprise value and enrich the relevant research on financial flexibility, corporate governance and enterprise value. Subsequent researchers can read this dissertation to understand and learn from the research background, research objectives, theoretical framework, research significance, research design, research methods, etc., in this research field. It lays a good research idea and literature foundation for its in-depth study.

For the Academe. Universities and colleges in China and the Philippines can use the results of this study as a case study for classroom discussions in financial management courses. Studies on the sources and measures of financial flexibility and its economic consequences, the components and functions of internal and external corporate governance, the relationship between financial flexibility, corporate governance and firm value, and the significant differences on financial flexibility, corporate governance and firm value when classified according to the nature of the firm can enrich classroom cases and make financial management classroom teaching more lively.

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Personality Traits, Work Value on Business Performance of Homestay Tourism Sub-sector in Henan Province

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Abstract

This study, which aimed to determine the personality traits and work values of homestay operators, and the business performance of homestays in Henan province, utilized the descriptive-correlational research design. The respondents of the study were the 239 randomly selected samples from a population of 592 homestay operators. The independent samples t-test, one-way analysis of variance (ANOVA), Pearson's r, and multivariate regression were used to analyze the data, all set at .05 level of significance. Findings showed that the personality traits do not significantly vary with age and number of family members; homestay operators with 3 years or less working experience had the highest level of neuroticism, which diminishes as the work experience in years increases. No significant differences in work values were found among the homestay operators when they were classified by sex, age, educational level, or number of family members, but the business performance of the homestays significantly differs with the number of rooms, location and environment. Business performance also has a positive correlation with agreeableness, openness, profit-oriented values, and entrepreneurial and developmental values. Whereas there were no correlations between business performance and the rest of the personality traits, namely, conscientiousness, extroversion, neuroticism and lifestyle values.

Keywords: *personality traits, work value, business performance, homestay, Henan Province*

INTRODUCTION

Background of the Study

Homestay as a new form of tourism accommodation industry has gradually attracted more and more tourists. Unlike the traditional hotels, homestays have personalized services, experiential accommodation and a more unique and humane way of lifestyle. Based on statistics, by the end of 2019, the total number of homestay inns and guesthouses in mainland China had reached 1698 million, and an operating income of 20.94 billion RMB, with up to 38.92% increase year-on-year (Pi, 2019). Henan province has an innate advantage of homestays. By the end of 2018, the direct operating income of homestays exceeding 2.200 million yuan ("China Mainland Home Accommodation Industry Development Data Report," 2019).

Although the practice of the homestay has increased in recent years, the investigation of the homestay and the operators are limited and required further research. Operators are a critical factor in the business performance of homestays (Pi, 2019). The significant difference between a homestay and a traditional hotel is the communication and interaction between the host and guests. Homestay operators' personality traits will impact the ways and methods of their communication (Zhao, 2021). Work values, also directly affect the growth of the

homestay industry to a large extent(Zhao, 2021). Several studies had been conducted on the association between personality traits and business performance(Gupta & Muita, 2013; Leutner et al., 2014), and between work value and business performance(Ren et al., 2014; Tan, 2012).

However, there are few studies on small tourism enterprises' personality characteristics, work values, and business performance, especially, among homestay operators in Henan province. Therefore, this study took personality traits and work values as independent variables to further explore their influence on business performance. This study tried to reveal the relationship of the personality traits, and work values of the homestay operators, and the business performance of the homestays in Henan Province.

Objectives of the study

The general objective of this study was to determine the personality traits and work values of homestay operators, and the business performance of the homestays in Henan Province.

Specifically, this study was conducted to:

1. determine the differences in the personality traits of the homestay operators when grouped according to sex, age, educational level, the number

of family members, work experience and entrepreneurship training experience;

2. determine the differences in the work values of the homestay operators when grouped according to sex, age, educational level, the number of family members, work experience and entrepreneurship training experience;

3. determine the differences in business performance of the homestays when the homestay operators were grouped according to sex, age, educational level, the number of family members, work experience and entrepreneurship training experience;

4. determine the differences in business performance of the homestays when grouped according to the number of rooms, location and environment;

5. determine the relationship between personality traits and business performance; and

6. determine the relationship between work values and business performance.

Theoretical Framework of the study

Personality traits theory is a theory that explores the structure, formation, development and dynamics of personality (Buss, 1989). Tupes and Christal (1961) believed that the 16 personality traits could be summarized into five personality factors, which could be used to explain work behavior, emotional change, interpersonal relationship, among others, which was later widely used as the Big Five personality theory. The Big Five theory of personality has been commonly used in the research of various subjects. The big five model refer to the scales of openness, conscientiousness, extraversion, agreeableness and neuroticism (Anusic et al., 2009).Homestay operators with positive personality traits are able to have positive emotional interactions with guests that ca result to satisfaction and appreciation of customers. (Pi, 2019) .

Meanwhile, the self-verification theory provides a conceptual foundation for understanding the relationship between values and conduct, which explains why individual values provide research perspectives on the motivational basis of work behavior. Swann believed that the motivation to enhance, predict, and control reality is the fundamental cause of self-verification (Hou et al., 2014). This theory provides a conceptual foundation for understanding the relationship between values and conduct. The theory holds that people are motivated to stick to their beliefs and to participate in proving, supporting and reinforcing self-beliefs and reconciling the differences in self-beliefs (Ryan & Deci, 2000). In self-verification theory, interpersonal behavior consistent with values not only creates cognitive conscientiousness but also provides opportunities to obtain verified self-evaluation (Shao et al., 2011).

In this study, Maslow's hierarchy of needs theory can explain the varying work values developed by the homestay operators based on the differences in their level of needs. Additionally, the needs of these homestay operators are influenced by their demographic profile like sex, age, number of family members, educational level, and entrepreneurship training experience, which consequently impact business performance.

Conceptual Framework

Based on the theories discussed above, the author proposed the conceptual framework as follows:
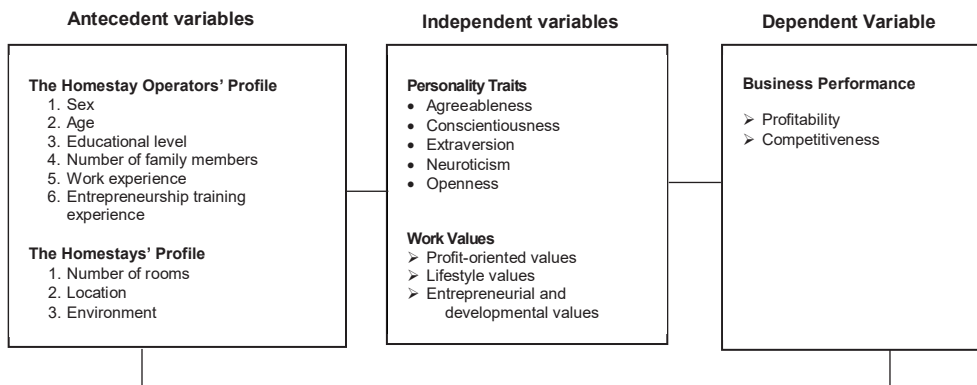
Figure 1. The Conceptual Framework of the Study

Definition of Terms

The main definitions are hereby given in the study. Business performance refers to the efficiency and effectiveness of a homestay's business management activities over a certain period of time. It was measured in terms of competitiveness and profitability. Personality traits refers to the patterns of regular behavior of the homestay operators

categorized into five traits: openness, conscientiousness, extraversion, agreeableness and neuroticism(McCrae & Costa, 1987). Work value refers to work needs, work motivation and work beliefs that homestay operators hold in the work, which reflect their internal needs and preferences, and guide their work attitude and behavior. It is an independent variable with three dimensions, namely, profit-oriented values, lifestyle values, and entrepreneurial and developmental values.

Significance of the Study

This study can contribute knowledge for effective and efficient management of the homestays. The findings of this study are expected to benefit the homestay operators, customers, homestay management department, other provinces and cities, the academe, business management consultant, the researcher and other researchers.

Scope and Limitations of the Study

This study was conducted in Henan province with the primary data collected from October to November 2022 using the duly validated and pilot-tested researcher-made rating scales for work values and business performance. A modified big five personality traits rating scale was also validated and pilot-tested to measure the personality traits of the homestay operators. Due to time limitations, the researcher only focused on studying personality traits, work values, and business performance in Henan Province. This study did not conduct a comparative study with the other elements affecting the province's business success.

METHODOLOGY

This study used the descriptive correlational research design with 239 randomly selected homestay operators as respondents from a total population of 592 homestay operators in the province. The researcher used the SPSS to process all of the gathered data using descriptive analysis of frequency, percentage, t-test, ANOVA, Pearson's r, and multivariate regression at .05 level of significance. All ethical standards in research as required were complied, such as the use of the standard informed consent form, conduct of ethics review and plagiarism test.

RESULTS AND DISCUSSION

Differences in Personality Traits according to the Respondents' Profile

Personality traits did not vary with age and number of family members. However, with the post hoc analysis, the male (mean=4.05) homestays showed significantly higher level of agreeableness than the females (mean=3.84). Also, as their level of education increases, they tend to have lower level of agreeableness, however, those with training experience showed more agreeableness than the ones without training experience (figure 1). It was also found that the homestays with 3 years or less work experience showed the highest level of neuroticism that decreases as their work experience in years increases (Figure 2).

This finding is in line with what Marija et al. (2016) claimed. They highlighted that personality traits and abilities may be to some extent inherited, but with education and continuous learning, it is possible to develop the necessary competencies of a true leader.

Table 1
Differences in Personality Traits according to Respondents' Profile

		Agreeableness	Conscientiousness	Extraversion	Neuroticism	Openness
Sex	*p*-value	0.680	0.141	0.704	0.209	0.048*
	t-value	-0.412	1.478	0.380	-1.261	1.989
Age	*p*-value	0.526	0.59	0.983	0.743	0.544
	F-value	0.800	0.705	0.097	0.489	0.773
Educational Level	*p*-value	0.021*	0.828	0.121	0.991	0.676
	F-value	3.305	0.296	1.956	0.036	0.510
Number of Family Members	*p*-value	0.830	0.378	0.472	0.365	0.275
	F-value	0.186	0.977	0.752	1.012	1.296
Work experience	*p*-value	0.091	0.31	0.07	0.004**	0.15
	F-value	2.181	1.202	2.383	4.627	1.788
Entrepreneurship Training experience	*p*-value	0.003**	0.492	0.655	0.584	0.375
	t-value	3.077	-0.688	0.447	0.548	0.890
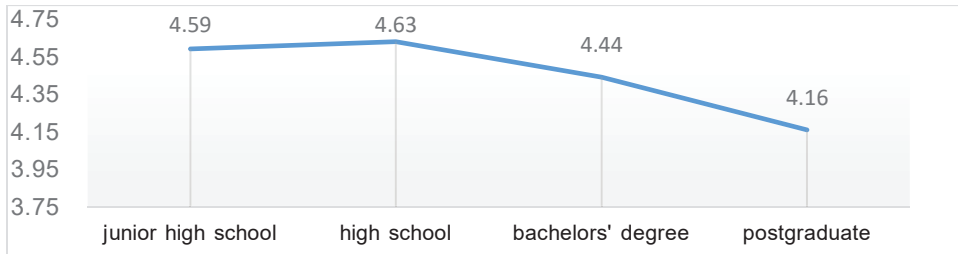
Figure 1. *Educational Level and Agreeableness of Homestay Operators*
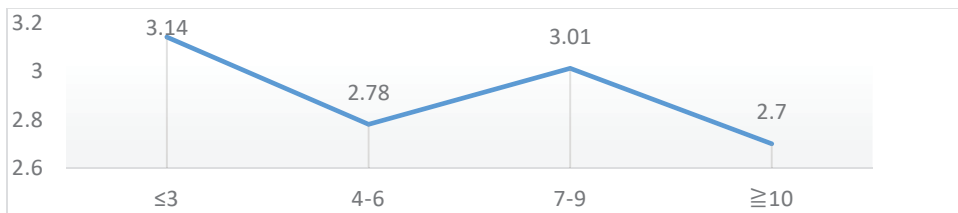
Figure 2. *Work Experience and Neuroticism of Homestay Operators*

Differences in Work Value according to Respondents' Profile

Homestay operators' work value do not vary according to sex, age, educational level, or number of family members.

Post hoc results shows that the homestay operators showed a strong entrepreneurial and developmental values as their work experience increased. Homestay operators with more than 10 years of experience (Mean=4.28) are higher than those with three or less years of experience (Mean=3.99). Those with entrepreneurship training experience (mean=4.24) also showed higher level of entrepreneurial and developmental values than those with no training experience (mean=3.83).

This finding implies that the richer the homestay operators' training and work experience, the stronger is their entrepreneurial and developmental values. The lessons they learned from their training and work experience have strengthened the importance they give on entrepreneurship and development.

Table 2
Differences in Work Value according to Respondents' Profile

		Profit oriented values	Lifestyle values	Entrepreneurial and developmental values
Sex	*p*-value	0.7	0.093	0.483
	t-value	-0.386	-1.688	-0.702
Age	*p*-value	0.655	0.749	0.173
	F-value	0.611	0.482	1.607
Educational Level	*p*-value	0.227	0.766	0.843
	F-value	1.457	0.382	0.275
Number of Family Members	*p*-value	0.061	0.397	0.147
	F-value	0.126	0.237	0.318
Work experience	*p*-value	0.927	0.118	0.047*
	F-value	0.154	1.976	2.683
Entrepreneurship Training experience	*p*-value	0.906	0.369	0.000**
	t-value	0.118	-0.900	3.948

*$p<0.05$ **$p<0.01$

Difference in Business Performance according to Respondents' Profile

The overall business performance of the homestays showed no significant differences when the operators were grouped according to sex, age, and educational level, but varied significantly with the number of family members, work experience and the entrepreneurship training experience. Significant differences between groups were also found in terms of profitability and competitiveness

across number of family members, work experience, entrepreneurship training experience, and sex. The post hoc results further show strong support (Figure 3 and Figure 4).

Post hoc results shows that the male homestay operators (mean=4.43) showed a significantly higher mean than women (mean=4.24) in terms of homestay profitability. This indicates that men are more focused on profitability than women. In China, men are primarily responsible for the financial burden in a family such that they pay more attention to profitability than women.

Table 3
Difference in Business Performance according to Respondents' Profile

		Profitability	Competitiveness	Business Performance
Sex	p-value	0.033*	0.892	0.244
	t-value	2.142	-0.136	1.167
Age	p-value	0.356	0.989	0.805
	F-value	1.103	0.080	0.404
Educational Level	p-value	0.587	0.932	0.930
	F-value	0.644	0.146	0.149
Number of Family Members	p-value	0.022*	0.004*	0.023*
	F-value	3.883	5.623	3.843
Work experience	p-value	0.031*	0.031*	0.029*
	F-value	3.003	3.001	3.068
Entrepreneurship Training experience	p-value	0.021*	0.001**	0.001**
	t-value	2.132	3.259	3.265

*$p<0.05$ **$p<0.01$
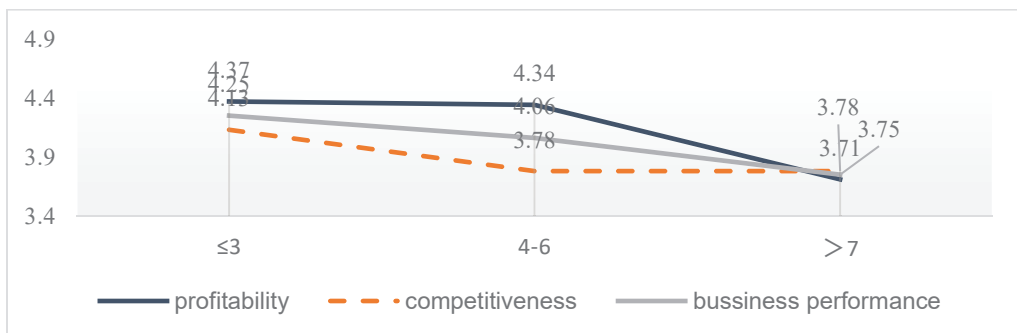
Figure 3. Number of Family Members of Homestay Operators and Business Performance of Homestays
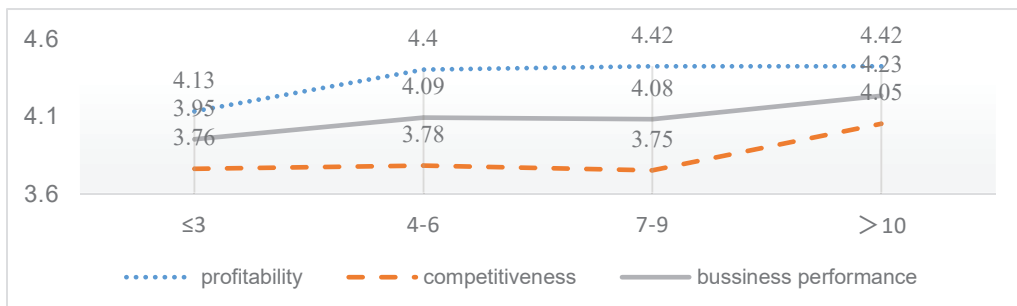
Figure 4. Business Performance of Homestays and Work Experience of Homestay Operators

Differences in Business Performance according to Homestays' Profile

The profitability, competitiveness, and overall business performance of the homestays significantly differ in terms of number of rooms, location and environment. The post hoc test results revealed that the more rooms a homestay has, and the closer it is to city, the higher is the profitability, competitiveness, and business performance. Moreover, homestays that are within the tourist attractions also have significantly higher profitability, competitiveness, and business performance. There is a natural flow of customers and a stable market for homestays located near the city and inside the tourist attractions; and overnight travelers are more likely to choose the homestays located inside scenic spots because they can enjoy the scenery around the homestay, experience the local culture and taste the local cuisine. Since they do not have to leave the scenic area, they have more time to enjoy the homestay services and the sceneries.

Table 4

Difference in Business Performance according to Homestays' Profile

		Profitability	Competitiveness	Business Performance
Number of Rooms	*p*-value	0.020*	0.000**	0.000**
Location	*p*-value	0.000**	0.003**	0.000**
Environment	*p*-value	0.003**	0.001**	0.000**

***p*<0.05 ***p*<0.01*

Relationship between Personality Traits and Business Performance

The homestay operators' agreeableness and openness have significant positive relationship to profitability, competitiveness, and business performance. The correlation coefficients for profitability and agreeableness and openness are 0.359, and 0.375, the homestay operators' agreeableness and openness were also found to have significant positive relationship. The correlation coefficients of 0.232, and 0.339, the homestay operators' agreeableness and openness were also found to have significant positive relationship. The correlation coefficients of 0.232, and 0.339.

The homestays' profitability, competitiveness, and overall business performance were positively correlated with agreeableness, and openness of the homestay operators, but not with conscientiousness, extroversion, and neuroticism. This finding is largely consistent with the previous study of (Zhao, 2021). The agreeableness and openness of the homestay operators allowed them to provide a personalized, homely, and friendly accommodation service to guests who can enjoy not just the rooms and food but also the interactions with the operators. Thus, guests get to learn and appreciate the locals: their culture and way of life.

Table 5

Relationship between Personality Traits and Business Performance

	Profitability		Competitiveness		Business Performance	
	r	*p*-value	r	*p*-value	r	*p*-value
Agreeableness	0.359**	0.000	0.232**	0.000	0.345**	0.000
Conscientiousness	-0.026	0.694	-0.059	0.365	-0.049	0.45
Extraversion	-0.002	0.979	0.107	0.099	0.061	0.347
Neuroticism	-0.023	0.727	0.07	0.283	0.027	0.677
Openness	0.375**	0.000	0.339**	0.000	0.416**	0.000

* *p*<0.05 ** *p*<0.01

The Relationship between Work Value and Business Performance

The results showed that the homestay's profitability, competitiveness, and business performance have significant, positive relationship with the profit-oriented values, and entrepreneurial and developmental values, while there is no significant correlation with lifestyle values. This finding ties well with the previous studies conducted by Liu (Liu, 2022; Liu, 2021), where work values were found to have a direct and significant positive impact on business performance. This indicates that profit-oriented values, and entrepreneurial and developmental values tend to improve business performance. Employees born after 1990 focus on the achievement, pursue self-worth and career development, and have a positive impact on job performance (Liu, 2022).

Table 6

Relationship between Work Value and Business Performance

	Profitability		Competitiveness		Business performance	
	r	p	r	p	r	p
Profit oriented values	0.360**	0.000	0.342**	0.000	0.409**	0.000
Lifestyle values	-0.063	0.333	-0.047	0.47	-0.064	0.325
Entrepreneurial and developmental values	0.509**	0.000	0.561**	0.000	0.624**	0.000

* p<0.05 ** p<0.01

CONCLUSIONS

Young people with limited qualification can have better opportunities in the homestay industry. Even small families (4-6 family members) on small scale operations can get better business performance with appropriate training and work experience. In this industry, the homestay's size (in terms of number of rooms), location, and environment are significant determinants of profitability, competitiveness, and overall business performance. The closer the homestay is to the city and to the tourist attractions, the higher is its profitability and competitiveness, as well as business performance.

Homestay operators with agreeable and open personality traits can make significant difference in improving the homestay's business performance. These traits enabled the operators to run homestays with a highly personalized, homely and friendly accommodation services that results to guest appreciation and satisfaction. Visitors or guests get to enjoy not only the rooms and food, but also the interactions with the operators, staff, and the local community, thereby, learning more about the local culture and way of life.

Business performance has a significant positive relationship with agreeableness, and openness, while it has no correlation with conscientiousness, extroversion, and neuroticism. And it also has a significant positive relationship with profit-oriented values and entrepreneurial and developmental values, while it is not significantly correlated with lifestyle values.

RECOMMENDATION

Homestay operators should reflect on their own personality traits and strengthen the positive traits such as agreeableness and openness to improve on customer relationship and satisfaction. They are encouraged to attend entrepreneurship trainings, gain more work experience, and find a balance between profit-oriented values and entrepreneurial and developmental values to improve business performance.

The government may review existing policies on homestay operations and design programs that would incentivize homestay operators and investors to help develop the industry. For other provinces and cities with emerging homestay industry, they can identify areas within the tourism attractions to establish homestays with more rooms to have better business prospects. The local government units of these provinces and cities may continue to provide assistance to homestay operators through continuous education, trainings, subsidies, and other forms of assistance.

The universities and colleges need to pay attention to the work value education. Although values education in China runs through all stages of education, primary school, secondary school and university, there is relatively little education involving work values, especially work values for entrepreneurship and development. Currently, China is setting up innovation and entrepreneurship school in various universities to train students in entrepreneurial and development values, which is to some extent a large progress.

There are some limitations in this study which can be solved through further investigations of other researchers. They can further deepen the discussions on the relationship and internal mechanism among personality traits, work values and business performance in the homestay industry.

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ACKNOWLEDGEMENT

Factors Influencing House Purchasing Decision of Customers in Zhoukou City Henan Province

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Abstract

This study reveals the factors influencing house purchasing decision of customers in Zhoukou City Henan Province. The descriptive results show that respondents married buyers basically occupied the whole Zhoukou real estate market, indicating that the demand for the purpose of purchasing marriage houses led to the purchasing decision; gender is dominated by men; the age structure is younger; the education level is generally high; the occupational status is dominated by enterprise employees; the proportion of house purchase varies greatly because the different monthly income of families; the marriage structure is dominated by married people; the largest proportion of home buyers in a family of three. Social factor has the highest average value in the independent variables. The customers' intention of the house type of "small high-rise", the house layout type of "three rooms with two halls", the house area of "larger than $60 m^2$ but equal or lesser than $80 m^2$", and the house price of "over 500,000 Yuan up to 800,000 Yuan" is the strongest.

Keywords: Factors Influencing, Purchasing Decision, Customers

INTRODUCTION

Background of the Study

At present, China's domestic housing supply far exceeds the demand of residents, and the vacancy rate of housing is relatively high (Feng Furong, 2022). On the other hand, residents' demand for housing will no longer be limited to the traditional just have a house, but put forward higher requirements for housing. Chinese home buyers not only have the need to live, but also have the need to maintain and increase the value of their assets.

In the future, real estate should provide home buyers with housing allocation solutions, housing investment solutions, and provide real estate value preservation and appreciation services. Therefore, it is significant to have a good understanding of the house purchasing decision in Zhoukou City, Henan Province to expanding the market, expanding domestic demand, and stimulating local economic growth.

Objectives and Hypotheses

The general objective of this study was to identify the variables that influence the house purchasing decision of customers in Zhoukou City. This study focused on the following specific objectives:

1. Describe the customer's profile in terms of sex, age, civil status, income, education, job position, and family size.

2. Determine the personal, psychological, cultural, economic, and social factors that influence customers' house purchasing decision.

3. Determine the customers' house purchasing decision in terms of house type, house layout, house area, and house price.

4. Determine the relationship between personal, psychological, cultural, economic, and social factors and customers' profile in terms of sex, age, civil status, income, education, job position, and family size.

5. Determine the relationship between the customers' house purchasing decision and customers' profile in terms of sex, age, civil status, income, education, job position, and family size.

6. Determine the relationship between the customers' house purchasing decision and the personal, psychological, cultural, economic, and social factors.

Based on the specific objectives, these are the hypotheses of the study:

1. There is no significant relationship between the personal, psychological, social, cultural, and economic factors and the customers' profile in terms of sex, age, civil status, income, education, job position, and family size.

2. There is no significant relationship between the customers' house purchasing decision and customers' profile in terms of sex, age, civil status, income, education, job position, and family size.

3. There is no significant relationship between customers' house purchasing decision and the

personal, psychological, cultural, social, and economic factors.

Theoretical Framework, Conceptual Framework and Significance of the Study

Theoretical Framework

As far as consumer behavior definitions and perspectives are concerned, and the focus and the view of the research, Engel et al. (cited in Twenefour, 2017) indicated that consumer behaviors include both the act of purchasing and using goods and services. The American Marketing Association (AMA) said that consumer behavior involves factors such as perception, cognition, behavior, and environment, which constitute an explanation of public social behavior (cited in Yang Shuqing, 2009). According to Solomon et al. (cited in Nolcheska, 2017), consumption was analyzed as a process and as an object.

Modigliani, Brumberg, and Ando (cited in Caspari, 2019) jointly proposed the consumption and savings life cycle hypothesis. A theory of consumer behavior in microeconomics states that the individual current consumption depends on personal income, including the current income and expected income, age and assets (Modigliani & Brumberg as cited in Caspari, 2019). Similarly, Friedman (1957) proposed that income determines consumption, since lasting income is the source and guarantee of consumption for people.

On the same note, Duesenberry (1949) and Keynes (1936) both assumed that current income is the primary factor influencing consumer spending. The two scholars believed that the current absolute income level and the current level of relative income, and the budget constraints are phases. Under the assumption of consumption irreversibility, when income drops, consumers will maintain their current consumption level by reducing part of their savings. In Duesenberry's consumption function, consumer consumption and budget constraints are also a period.

There are many theories about consumption decision, and for the purposes of this paper, the following are the theoretical cornerstones of this research: consumer decision-making theory, Keneysian theory, Kotler's theory of four factors influencing consumer behavior, three-factor theory of consumer behavior, and Hawkin's two-factor theory of consumer behavior.

In consumer decision-making theory, consumer behavior is primarily concerned with the consumer's decision to purchase. Decisions regarding purchases is a key component of consumption behavior, and without the purchase decision, consumption behavior cannot be discussed. Thus, the current consumer behavior theory also seeks to understand what factors influence purchase decision (Wu Linhai et al., 2010). A consumer's decision can be divided into problem identification, gathering pre-purchase information, evaluating alternatives, choosing products, and evaluating their behavior afterwards (Solomon et al. as cited in Nolcheska, 2017).

According to Keynesuan theory, the macroeconomic trends are the major factors in restricting specific behaviors. In Keynes' consumption theory, residents' consumption strongly correlates with their current income. Keynes further argued that public administration should increase demand in order to increase economic growth (Muñoz-Bandala, 2022).

While economists believed that consumer behavior is a function of income and budget, for Kotler and Armstrong, the factors that influence consumer behavior can be divided into four groups. These are the personal, social, psychological and cultural factors (Yayla, 2019). Included in the personal factors are personality and self-concept, age and life cycle stage, occupation, economic environment, and lifestyle. For social factor, this includes the reference group, family, role and status; while motivation, perception, learning, belief and attitude are included in the psychological factor. However, in the three-factor theory on consumer behavior, marketing is regarded as another important factor influencing consumer behavior, and it can be impacted from three aspects of internal factors, environmental factors and marketing factors.

In another perspective, Hawkin's two-factor theory of consumer behavior posits that factors influencing consumer behavior can be divided into two types, the factors inside the consumer, and those outside of the consumer. According to Hawkin's model, consumers build up their self-concept (image) and lifestyle according to the influence of internal and external factors. These influences then lead consumers to establish consistent needs and desires, the majority of which must be satisfied and encountered through consumption behavior (purchasing products). These will also have an influence on consumer psychology and behavior in the future, particularly with regard to self-concept adjustment and lifestyle transformation.

The following categories can be used to broadly classify the theories developed by foreign researchers who study consumer behavior: the theory of influencing factors, the theory of demand from consumers' inspiration and value, the theory of self-image and lifestyle, the theory of consumer processing of information and making decisions, and the theory of the final purchasing behaviors.

Factors influencing consumer behavior can be classified into two, three, and four levels. The two-factor theory categorizes influencing variables into two groups: those that exist within the consumers and those that exist outside of the consumers. The two factor theory is also known as the "external /internal factors" theory or the

"personal/environmental factors" theory. The three-component theory considers "marketing" to be another essential element that impacts customers and isolates the three factors (internal, environmental, and marketing) in order to examine the overall influence of customer behavior. Kotler suggested a four-level theory which discusses the four layers of consumer behavior influencing factors such as cultural, social, personal, and psychological.

After analyzing the related theories and factors which influence the consumer behavior, the author found that the house purchasing decision should be evaluated by the customers, as they are the ones who have the firsthand experience and have the most accurate judgment on this matter.

Several factors may influence the decision to purchase a house, including the personal factor, psychological factor, cultural factor, social factor, and economic factor. Studying the influences of these factors on the house purchasing decision contributes greatly to decision makers assess the influence level of each factor, thereby proposing appropriate policies to promote economic development of the City.

Conceptual Framework

There have been no studies conducted on the factors influencing the decision to purchase a house in Zhoukou City, as indicated in the theoretical framework above. There may also be differences in the influencing factors of the house purchasing decision due to the characteristics of the surveyed persons (customers). Anchored on the theories presented, the following conceptual framework was developed for this study.

In this study, how personal, psychological, cultural, social, and economic factors influence house purchasing decision of customers were examined. Variables were identified and categorized into antecedent, independent, and dependent variables.

Sex, age, civil status, income, education, job position, and family size are the antecedent variables; personal, psychological, cultural, social, and economic factors are the independent variables; and the customer house purchasing decision as the dependent variable. Customers' house purchasing

decision is in terms of the house type, house layout, house area, and house price, while the purchasing channels of these customers can be directly from the housing marketing center, through an agent, or through the internet. Houses for purchasing decision refer to residential houses for real estate sales, including only urban houses and excluding land.

Apart from the factors identified as independent variables, the profile of the customers in terms of sex, age, civil status, income, education, job position, and family size may influence the customer's house purchasing decision.

It is also possible that the variations in the purchase decision of the customer in terms of house type, layout, area and price can be explained by their differences in sex, age, civil status, income, education, job position, and family size. Female house buyers may have different choice for houses than the males. Younger buyers may have different house preferences than the older buyers. Married couples, singles, and those with children and parents living with them may also have different house requirements. Customers with higher income and with higher job position will definitely have different house requirements and specifications than those with lower income and job position. Varying level of education and family size can also result to differences in house purchasing decision.

Furthermore, it was conceptualized that there are relationships between the customer's sex, age, civil status, income, education, job position, family size and house purchasing decision. The author asserts that the personal, psychological, cultural, social, and economic factors influence customer house purchasing decision. These factors are essential issues in customer purchasing decision for housing and directly influence customer house purchasing decision.

In sum, the author believes that the antecedent variables (sex, age, civil status, income, education, job position, and family size) and the independent variables (personal, psychological, cultural, social, and economic factors) are correlated to house purchasing decision of customers.

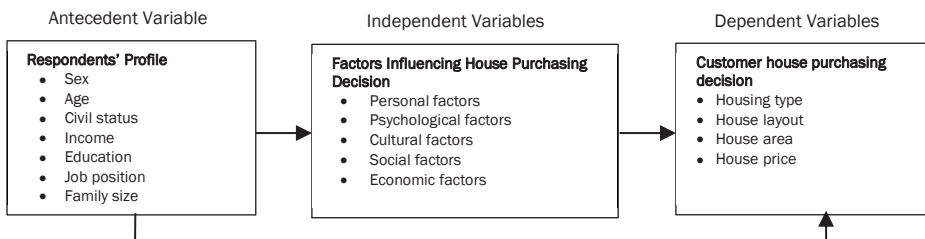Figure 1 summarizes these possible relationships and differences.

Figure 1. The Flow of the Relationship of the Variables of the study

Significance of the Study

A certain group of people may benefit from the results of the study. These group of people are the following:

Real estate marketers. The real estate marketers in China focus on the distribution of consumers and demand levels to design and plan sales strategies to fulfill the specific requirements of buyers. The findings of this study will be useful to them in the development of appropriate marketing strategies suitable for Zhoukou residents.

Real estate practitioners, enterprises and organizations. These group of people are the ones responsible in the selection of suitable place for their development. They may set up agencies for real estate, work in real estate agencies and projects tailored to the local market in accordance with the main factors influencing consumer housing consumption decision. The results of this study will be beneficial for them especially the insights on the factors that influence the house purchase decision of consumers in China as these may be used in the kind of real estate development projects they may engaged in. They may be able to pay attention to consumers' consumption decision and adjust their commodity production and marketing based on the findings of the study.

Customers. Customers of real estate companies in China can benefit from this study. Using this study's results, they will be able to identify the factors that influence house purchasing decision. The information they may get from the study will provide them with awareness and guidance when buying houses that will give them satisfaction.

Buyers with investment needs. House buyers for investment purposes may use the results of this study as reference when making house purchase decision. The knowledge they can get regarding the factors that influence house purchase decision can help them predict and make informed decision on the future property needs in different locations.

Local Government Unit in Zhoukou City. The city government can use the results of this study to establish a functional development office. Through the observation of the housing consumption market, the office can timely provide relevant government departments with information and suggestions on urban planning and the housing market.

Real Estate Development Offices. They may take into account the consumer consumption decision as a factor, to promote the harmony of real estate development and the needs of buyers, and the healthy and sound development of the real estate market.

Government Agencies. This study can provide government agencies with new theoretical reference on social security housing accurately and effectively. In a harmonious market under the requirements, the government should formulate and implement reasonable land policies according to its own functional positioning, tax policy, financial policy, safeguard policy, trading policy, information policy and cultural and education policies.

Other Local Government Units. Using the results of this study, they can establish a functional development office. Through observation of the housing market, the office can provide timely information and advice to government departments about the housing market.

Non-governmental Organizations (NGOs). This study can give non-governmental organizations with new theoretical reference on social house purchasing decision accurately and effectively.

Future Researchers. The future researchers who will study similar topic in the future may rely on the findings of the study as their reference material. It can provide them insights on the research methods and ideas relevant to regional and other researches related to factors influencing house purchases.

Students. For the students who are committed to studying the factors influencing local house purchases, this study may provide them with some research perspectives, ideas and methods, help them understand and find the factors that influence the consumption decision of local house buyers.

Scope and Limitation

This study on the factors influencing the house purchasing decision of real estate customers was conducted in Zhoukou City. The predetermined factors influencing the customers' house purchasing decision are the personal factor, psychological factor, cultural factor, social factor, and economic factor.

The study was confined to Zhoukou City. It involved 400 local customers selected using stratified random sampling who were profiled in terms of sex, age, civil status, income, education, job position, and family size.

The primary data were collected from November to December 2022 using a researcher-made questionnaire which was pre-tested for validation and reliability; while the secondary data gathered covered the period 2018 to 2021. The data were processed using SPSS16.0 and STATA16.0. Descriptive and inferential statistics were used to analyze the data at 5% level of significance.

On the basis of these analyses, the paper has come up with some meaningful recommendations to improve the house purchasing decision and hopefully attract customers to put their resources into the city. The results may be not the same with other cities. The limitations of both time and funding in the implementation of the study led the researcher to examine the factors influencing the house purchasing decision of Zhoukou City only. The analysis was limited to consumer purchasing decision of Zhoukou City real estate housing market and its relationship to the customers' profile and personal, psychological, cultural, social, and economic factors.

Related Literature/Studies

According to the "seven" data the National Bureau of statistics of China released in 2020, China's housing problem has changed from total shortage to structural supply. (Sun Weifeng, Feng Mengqian, Chen Qifan, 2021)

It is expected that the overall sales area of China's commercial residential market will still be considerable in the next five years (China Index Academy, 2021)

Huang Guan (2020) thinks that the demand for housing is significantly positively correlated with population aging.

Li Lulu (2022) proposed relevant suggestions: real estate developers should grasp the changes in consumer perceived value of housing under the influence of the epidemic.

Yan Nana, Hang Bin (2020) believe that housing demand is influenced by the social status of families with the increase of average housing areas in each province.

Shao Yongchun (2022) believes there is a significant negative correlation between down payment ratio and household purchasing decision.

Wang Yatong (2021) believe that the reasons that influence consumer purchasing decision are caused by customer attributes, personal characteristics, personal preferences, and other factors.

Zhu Fei (2020) believes that improving the usefulness of houses, such as increasing the supporting infrastructure of education, healthcare, and other facilities around the houses, improving the working environment around the houses, allocating employment resources reasonably, and improving the convenience of the houses, such as increasing the construction of living infrastructure and improving the living environment around the houses to improve their living quality, will promote the willingness of the improvement oriented group to purchase houses.

Kotler (2003) established four layers of elements that impact consumer behavior: social, cultural, personal, and psychological. The family is considered to be society, the culture to be mainstream culture, subculture, and social culture, and the personal factors to be consumer age, occupation, lifestyle, and psychological factors to be consumers' actions and reactions.

According to Keynes's(1936) economic theory, macroeconomic trends are a major factor in restricting specific behaviors. In Keynes' consumption theory,residents' consumption strongly correlates with their current income.

METHODOLOGY

This paper has used a descriptive- correlation method to analyze the factors that influence house purchasing decision in Zhoukou city.

Quantitative research

This is the main research process of data collection by interviewing 400 customers of Zhoukou city. The data collected has been processed using STATA 16.0 software.

Data Gathering Procedure

In the selection of the participants, the researcher adhered to a set of inclusion-exclusion criteria. Customers who have already bought a house in the past year using any of the three identified channels of purchase in Zhoukou City were included, while those who purchased a house in the City before or after the specified period, and have not used any of the three channels of purchase were excluded.

The survey period has been carried out from November to December 2022.

Data-Processing Procedure

This paper uses multiple linear regression model, as well as multi-nominal logistic model to explore the influencing factors of house purchasing decision in Zhoukou city.

RESULTS AND DISCUSSION

The author defines and examines the antecedents, independent variables, dependent variables by using descriptive analysis of data received from respondents.

Descriptive Data Analysis

This paper first makes a descriptive statistical analysis of the main variables (antecedents, independent variables and dependent variables) involved in the model setting section. Tables 1, 2, and 3 illustrate the results.

Descriptive Data Analysis for the antecedent variables

Here is the table of personal characteristics of participants.

1. Gender is dominated by men

Table 1 shows that 203 male customers participated in the survey out of 400 valid

questionnaires, accounting for 50.75% of the sample size; female customers make up 197 of the entire sample size, accounting for 49.25% of the overall sample size. Among the surveyed consumers, male house-purchasing groups have become the main participants in house-purchasing, with a larger proportion than female home-purchasing groups.

2. The age structure is younger

It can be seen from Table 1 that the group of age from over 25 years of age up to 35 years of age is the main group of people who buy houses, accounting for 39.50% of the total, nearly 40% of the total. The second is the population over 35 years of age up to 45 years of age representing 29.75% of the total. Thirdly, the proportion of people up to 25 years of age is 18.25%, and the proportion of people over 45 years of age is the least, accounting for only 12.50% of the total. In general, the age structure of house buyers in Zhoukou is becoming younger and younger, which is consistent with how the Zhoukou real estate market is now performing.

Because most of the local people in Zhoukou have two houses, the current purchase is mainly for the migrant population and the local young people who are eager to buy a house and get married, so the age structure of the whole house buyers is younger.

3. The education level is generally high

Table 1 demonstrates that among the respondents of the house-purchasing consumers, the people with bachelor's degree or above account for 43% of the total, and become the mainstream crowd of house-purchasing. The second is the purchase consumers with college education, accounting for 37% of the total. However, it cannot be ignored that the proportion of home buyers below college education is 20%. In recent years, due to a large number of land demolition in Zhoukou, some local farmers in Zhoukou have suddenly become "nouveau riche". This part of home buyers have low education background and large demand for housing, and the survey results show that 20% of home buyers have low education background.

4. Occupational status is dominated by enterprise employees

As shown in Table 1, among the surveyed consumers, enterprise employees are the main group, accounting for 57.75% of the total, followed by the service workers, accounting for 22%, civil servants and public institutions, accounting for 16.5%, and freelancers, accounting for 3.75%.

5. The proportion of house purchase varies greatly due to the different monthly income of families

As shown in Table 1, the majority, or 43.75% of all home purchasers, are those whose monthly family income is greater than 7000 Yuan. The proportion of home buyers with household income of greater than 7000 Yuan is greater than that with household income of greater than 5000 Yuan equal or lesser than7000 Yuan. The proportion of home buyers with a monthly household income larger than 2000 Yuan equal or lesser than 3000 Yuan and larger than 3000 Yuan equal or lesser than4000 Yuan respectively accounted for 1.5% and 6.75% of the total. The average house price of Zhoukou in 2021 is about 5000 Yuan, and the survey results are in line with the market level of Zhoukou. On the whole, the proportion of high-income and low-income consumers who buy houses varies greatly.

Table 1

Descriptive statistics of antecedent variables

Categories of variables	f	%
Sex		
Male	203	50.75
Female	197	49.25
Age		
Up to 25 years of age	73	18.25
Over 25 years of age up to 35 years of age	158	39.5
Over 35 years of age up to 45 years of age	119	29.75
Over 45 years of age	50	12.5
Educational background		
Junior college is below	80	20.0
Junior college	148	37.0
Undergraduate degree	159	39.75
Master's degree and above	13	3.25
Job position		
Civil servants or public institution personnel	25	6.25
Enterprise operator or senior managers	11	2.75
Enterprise employees	220	55.0
Service workers	88	22.0
Freelancer	15	3.75
The teacher	41	10.25

Table 1 Continued

Income level	f	%
larger than2000 Yuan equal or lesser than3000 Yuan	6	1.5
larger than3000 Yuan equal or lesser than4000 Yuan	27	6.75
larger than4000 Yuan equal or lesser than5000 Yuan	61	15.25
larger than5000 Yuan equal or lesser than7000 Yuan	131	32.75
larger than7000 Yuan	175	43.75
Civil status		
Single person	16	4.0
Married, with no young children	75	19.75
Married and living with a small child	166	41.5
Married and living with her parents	23	5.75
Married and living with their parents and children	79	19.75
Single, and live with your parents	41	10.25
Family size		
One	16	4.0
Two	75	19.75
Three	207	51.75
Four	23	5.75
Five	79	9.75

6. The marriage structure is dominated by married people

As shown in Table 1, among the surveyed house-buyer consumers, married with one child is the main house-buying group, accounting for 41.5% of the total. The second is the family of married and living with their parents and children, accounting for 19.75% of the total. Moreover, newly married couples account for 18.75% of the total. It shows that in the current real estate market of Zhoukou City, the majority of married consumers with children have bought houses. Therefore, consumer groups with the purpose of purchasing wedding houses have become the mainstream consumer groups.

7. The largest proportion of home buyers in a family of three

As shown in Table 1, among the surveyed house-buyer consumers, the proportion of house-buyers who are married with one child in a family of three is the largest, accounting for 51.75% of the total. Secondly, 19.75% of married buyers with children living with their parents, and 18.75% of married buyers with young couples, and married buyers living with their parents accounted for 5.75%, and single buyers accounted for 4%. In general, among the surveyed buyers, married buyers basically occupied the whole Zhoukou real estate market, indicating that the demand for the purpose of purchasing marriage houses led to the purchasing decision.

Descriptive Data Analysis for independent variables

Here is a table with the descriptive statistics for independent variables broken down into personal, psychological, cultural, social, and economic factors.

The mean difference of each independent variable is not obvious. As shown in Table2, among them, SF (social factor) has the highest average value, with an average value of 4.07. This shows that most of the current buyers in Zhoukou City are interested in "the convenience of public transportation near the community", "the strength of the real estate developer and the popularity in the society", "the housing sales price is reasonable", "the real estate has great potential for value addition", and "the quality of the house's construction." The level of concern of the aforementioned five problems ranges between "somewhat important" and "very important". Among the other independent variables, PSYF (psychological factor) has the smallest mean value, which is only 4.04, which means that most buyers are interested in "property management service quality", "property management fees are reasonable", and "sales staff's attitude is warm and sincere", "Occupation and class of the neighbor", "Intelligent information management of the residence", "The overall layout of the community where the house is located is reasonable", "The community has a high degree of landscaping", "There are clubs in the community", and "Is there any convenient facilities for the elderly and children". The self-assessment importance of these above nine questions is relatively low. The mean values of the remaining three independent variables, PF (personal factor), CF (cultural factor) and EF (economic factor) are all 4.05, which are between the above two independent variables.

Table2
Descriptive statistics of independent variables

Categories of variables	Mean	Standard Deviation
PF (Personal factor): The respondents' answers to five questions are calculated by the method of equal weight average, the answers to the follow five questions are assigned by the interviewees according to their importance.		
1. It is convenient to take the bus near the neighborhood. 2. There is a park or river in the neighborhood. 3. There is well-known primary and middle schools near the community. 4. There is a large supermarket near the neighborhood. 5. The location of the house make the house more valuable in the future.	4.05	0.89
PSYF (Psychological factor): The respondents' answers to nine questions are calculated by the method of equal weight average, the answers to the above nine questions are assigned by the interviewees according to their importance.		
1. Property Management Service Quality Requirements. 2. Property charges reasonable. 3. The attitude of the sales staff is warm and sincere. 4. Consider the neighborhood occupation and class. 5. Self-energy, information management of the community. 6. The overall layout of the community reasonable. 7. Degree of landscaping in the community. 8. There is a club in the community. 9. There are convenient facilities for the elderly and children in the community.	4.04	0.84
PSYF(Psychological factor) **CF (Cultural factor):** The respondents' answers to six questions are calculated by the method of equal weight average, the answers to the above six questions are assigned by the interviewees according to their importance.		
1. Architectural style, Form of the house. 2. The house type design reasonable. 3. Direction, spacing of the house. 4. The lighting of the house is sufficient, the ventilation is smooth. 5. The house being renovated. 6. Distance from the workplace.	4.05	0.88
SF (Social factor): The respondents' answers to four questions are calculated by the method of equal weight average, the answers to the above four questions are assigned by the interviewees according to their importance.		
1. The strength of real estate developers, well-known in the society. 2. Home Sale Price. 3. Value potential of buildings. 4. Building Quality of Houses.	4.07	0.88
EF (Economic factor): The respondents' answers to five questions are calculated by the method of equal weight average, the answers to the above five questions are assigned by the interviewees according to their importance.		
1. Down-payment ratio. 2. Mortgage Interest Rates. 3. National Purchase Limit Policy. 4. Recent Development Trends in the Real Estate Market. 5. Inflation Rate (The rise of the price index and the decline of the purchasing power of money).	4.05	0.89

Descriptive Data Analysis for the dependent variables

Here is the table of descriptive statistics of dependent variables by the type of house, the layout of a house, purchase area, and purchase price.

As shown in Table 3, "Small high-rise" are the most desirable housing type for Zhoukou respondents, and 33.75% of respondents said they would like to purchase such housing type; however, the purchase intention of "villa" type houses is the lowest, and only 4.75% of respondents consider buying such houses. The purchase proportion of "multi-tier" and "high-rise" houses is 32.75% and 28.75% respectively. In terms of house layout type, the purchase intention of "three rooms with two halls" is the strongest, with 43.25% of respondents saying that they are most willing to purchase this type of house layout; However, the purchase intention of "one room with one hall" was the lowest, and only 10.25% of respondents said they would like to buy such a type of house layout. The purchase proportions of "two rooms with one hall", "two rooms with two halls", "three rooms with one hall" and "four rooms with two halls" are respectively 17%, 31.75%, 29.25% and 35%. In terms of house area, the purchase intention of "larger than $60m^2$ but equal or lesser than $80m^2$" is the strongest, with 25.5% of respondents saying that they are most willing to purchase this area of house; however, the purchase intention of "larger than $100m^2$ but equal or lesser than $120m^2$" was the lowest, and only 17% of respondents said they would like to buy such an area of house.

Table 3
Descriptive statistics of dependent variables

Categories of variables	f	%
The type of house: (The type of house that respondents want to buy)		
Multi-tier (below 7 layers)	131	32.75
Small high-rise (8-15)	135	33.75
High-rise(above16 floors)	115	28.75
Villas	19	4.75
The layout of a house:(multi-choice, Layout of a house that respondents want to buy)		
One room with one hall	41	10.25
Two Rooms with one hall	68	17.0
Two Rooms with two halls	127	31.75
Three Rooms with one hall	117	29.25
Three Rooms with two halls	173	43.25
Four Rooms with two halls	140	35.0
Purchase area:(House type area purchased by respondents (unit: m^2)		
larger than 40 m^2 but equal or lesser than 60 m^2	70	17.5
larger than 60 m^2 but equal or lesser than 80 m^2	102	25.5
larger than 80 m^2 but less than or equal to100 m^2	88	22.0
larger than100 m^2 but equal or lesser than120 m^2	68	17.0
larger than120 m^2	72	18.0
Purchase price:(House purchase price of respondents (unit: 10000 Yuan))		
Up to 300, 000 Yuan	39	9.75
Over 300,000 up to 500,000 Yuan	121	30.25
Over 500,000 Yuan up to 800,000 Yuan	128	32.0
Over 800,000 Yuan	112	28.0

The purchase proportions of "larger than 40 m^2 but equal or lesser than 60 m^2 ", "larger than 80 m^2 but less than or equal to100 m^2 ", and "larger than120 m^2 " are respectively 17.5%, 22% and 18%.In terms of house price, the purchase intention of "over 500,000 Yuan up to 800,000 Yuan" is the strongest, with 32% of respondents saying that they are most willing to purchase this price of house; however, the purchase intention of "up to 300, 000 Yuan" was the lowest, and only 9.75% of respondents said they would like to buy such a price of house. The purchase proportions of "over 300,000 up to 500,000 Yuan", and "over 800,000 Yuan" are respectively 30.25% and 28%.

Discussion

The market for housing industry in Zhoukou City is characteristically dominated by men, of younger age structure, and enterprise employees. In addition, the market is mostly married couples with small number of family members (three at the most) and with high income earnings.

The personal, psychological, cultural, social, and economic factors have a modest level of influence on the house purchase decision of customers. This may imply that there could be other factors that customers consider when making house purchase decision apart from these five factors identified.

The market for housing in Zhoukou City has specific requirements in selecting houses for purchase. There is a market for houses that are "small high-rise", with "three rooms and 2 halls" and a house area "larger than 60m2 but equal to or less than 80m2", at a price "over 500,000 Yuan up to 800,000 Yuan".

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

These are the salient findings of the study:

1. The profile of the participants revealed that majority of them are male, enterprise employees, and with three people in the family. As to age, civil status, income and education, most of the participants are over 25 years old up to 35 years old, married with a small child, earn larger than 7000 Yuan a month, and have bachelor's degree, respectively.

2. The personal, psychological, cultural, social, and economic factors influencing the house purchasing decision were found to be moderately influential.

3. In terms of house purchasing decision, most of the participants would intend to buy a house that

is "small high-rise", with "three rooms and 2 halls" and a house area "larger than 60m^2 but equal to or less than 80m^2", at a price "over 500,000 Yuan up to 800,000 Yuan".

Recommendations

The findings and conclusions presented served as the bases for the following recommended actions:

1. Real estate marketers should focus on the distribution of customers and demand levels to design and plan sales strategies to satisfy each customer's particular demands. They may employ target marketing according to the profile of the Zhoukou City residents.

2. Real estate organizations, enterprises and practitioners should need to focus on the convenience of life and travel, the natural environment around the house, educational facilities, consumer comfort, the location of the house and other aspects, so as to meet the personal needs of property buyers in the City. In addition, they need to cater to and meet the psychological needs of consumers by providing garden greening of the residential area, community clubs, facilities for the elderly and children, and the occupation and class of the neighborhood. They should ensure that their sales personnel possess enthusiasm and sincerity. Service quality of property management, property service charges, intelligent information management of the residential area where the house is located, and the overall layout of the residential area must also be considered. At the same time, they should also address the social needs of the house buyers by developing house areas that are convenience for public transportation with reasonable price and great value-added potential. They should also maximize the strength of the real estate developers they are engaged with including the social popularity to market their real estate products and services.

3. For the different institutions and leaders, this paper reflects the importance of consumer market research and suggests that they should pay attention to consumers' consumption decision and factors of purchasing decision in time and adjust their commodity production and marketing in time.

4. For the Zhoukou City local residents who need to buy houses, they have to search for information that can help them choose a suitable house that will meet their needs in terms of convenience, availability of community facilities, building quality, price, among others.

5. For the house buyers with investment needs, they have to fully consider the personal factor, psychological factor and social factor of local residents in Zhoukou City. On the one hand, buyers who invest in buying houses will cater to the needs of local residents in ZhouKou City, making the houses easy to sell. On the other hand, even if they do not sell, because of the location of the houses purchased for investment purposes, they should consider the supporting facilities around the area, and the rental value of the houses.

6. For the government, it can use the results of this study to establish a functional development office. Through the observation of the housing consumption market, the office can timely provide relevant government departments with information and suggestions on urban planning and the housing market. For example, increase the planning of living circles around residents, plan and layout supporting facilities to meet the needs of residents' life and education, and plan schools, community hospitals, business circles, parks, etc. near the residential areas. At the same time, it may can provide policy support and measures to ensure protection to both the house sellers and buyers.

7. For the real estate development office, it is suggested that the direction of real estate development should be taken from the perspective of consumer consumption decision. In future real estate projects and activities, while studying the real estate market in terms of real estate policies, bank interest rates and financial instruments, consumer consumption decision and factors of house purchasing decision should also be taken into account so as to promote the harmonious unity of real estate development and keep a sound development of the real estate market.

8. For the government agencies, when strengthening and expanding their projects and services in the field of real estate, government agencies can consider linking the consumption decision factors of property buyers with their projects and services, and give guidance and help to real estate developers and property buyers in the planning of the external environment of real estate, and the designation of house purchasing financial policies.

9. For the other local government units, they can establish a functional Development Office that will provide timely information and advice to government departments about the housing market.

10. For the Non-governmental Organizations, they may use this study to develop new theoretical reference indicators on social house purchasing decision accurately and effectively. This study can provide a new perspective to focus on the housing needs of people in the community, establish a comprehensive support policy to guarantee people's housing needs, formulate housing improvement policies, and improve people's happiness index in life.

11. For the researchers who are or will be studying similar topics, they can use the results of this study as reference to help them have a clearer understanding of the factors influencing customers' decisions in the real estate industry, and other related topics on property buyers.

12. For the students who are committed to studying the factors influencing the decision of local house purchasing, they can use this study to provide

them with some research perspectives, ideas and methods, help them understand and find the factors that influence the consumption decision of local house buyers, and provide further detailed references.

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Managers' Assessment of the Risk Factors and Project Return on Investment (ROI) Among Information Technology (IT) Companies in Zhoukou City, China

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Abstract

The purpose of this survey-correlational study was to identify the risk variables and project return on investment (ROI) among information technology (IT) enterprises in Zhoukou City, China. 49 managers participated in the survey, which was conducted in November 2022 and was chosen by random sampling. The data for the study were collected using a questionnaire that was created by the researcher. The majority of IT companies, according to the study's findings, completed their projects in less than three months on average, had fewer than 10 workers, had one to fifty lucrative projects, and had been in business for less than six years. IT organizations were found to have medium market demand risk, low interest rate risk, extremely low exchange rate risk, medium commodity price risk, low innovation technology risk, and low market risk.

Keywords: Risk Factors, Project Return on Investment (ROI), Information Technology (IT)

INTRODUCTION

Background of the Study

Risks are inherent in every business. It can be said that "doing business" is indeed a risk-taking activity. Nevertheless, risks must be properly managed and be kept within manageable levels (Balatbat, 2019). Risk can simply be described as "things that can go wrong." In the sphere of managing risk, it is not right to say "let's just cross the bridge when we get there." On the contrary, risks should be identified before they even happen so that the company will be in a better position and have time to prepare for them. Successful businessmen and decision-makers make sure that the risks resulting from their decisions are measured, understood and as far as possible eliminated. They also go beyond the direct financial perspective and actively manage risk as it affects the whole organization. This is the essence of risk management. Accepting that risks exist is a starting point for the other actions needed, but the most important is to create the right climate for risk management. Identification of significant risks both within and outside the organization is crucial and allows to make informed decisions. This makes it easier to avoid unnecessary surprises. Risk surrounds and continues to be with us. A former British prime minister once said. "To be alive at all involves some risk."

Information technology (IT) is changing with each passing day, which is effectively promoting the development of social productivity. As such, IT industry develop forward at a higher speed in the tide of digital revolution. The market has witnessed a rapid development in the new stage. In the last several years, with the persistent achievements made in network technology, China's IT industry market has been developing and its competitiveness has been improving. According to the statistical Bulletin of China's Software and information Technology Service industry in 2020, China's software and information technology service industry has over 40,000 businesses with a total software business revenue of 8,161.6 billion yuan, up 13.3% year on year (data source: China's industrial economy information network http://www.cinic.org.cn/xw/tjsj/1028137.html).

The success of information technology and the application of all kinds of new technologies bring about many changes in our life, which brings various development opportunities and challenges. With the persistent progress achieved in China's informatization, information technology has been integrated into people's life in all aspects. China's IT enterprises and total assets are gradually increasing, which also means that China's IT enterprise construction has begun to stride into a new era of development. A large number of IT enterprises are standing at the front of the development tide of The Times, participating in various information technology investment projects.

Though Zhoukou is a small city of China, it also was born in the tide of information age. With some risk factors affecting the success or failure of project, it is important that IT enterprises reasonably predict the risks towards the completion of project investment. Enterprises attach particular importance to the return on investment as an important reference index when participating in IT projects. Zhoukou IT enterprises must fully screen out the risk factors and ROI.

Many domestic experts and scholars have conducted research on risk identification. There are studies on engineering projects in foreign countries, but not on the risk factors of IT enterprise investment projects.

At present, research on project risk management at home and abroad mainly focuses on real estate, PPP projects, electric power, roads and other aspects, and there is almost no project risk research based on IT industry. Therefore, on the basis of drawing lessons from other project risk management experts at home and abroad, the research results of this study can be fully used to carry out the project investment risk identification of IT enterprises in Zhoukou City. There is no available literature that determines the risk factors and Project Return on Investment (ROI) particularly in Zhoukou City. More particularly on the correlation of market risk, organizational management organizational risk, financial risks and project ROI.

Hence, this study aims to determine the risk factors and the project return on investment (ROI) of Zhoukou information technology (IT) enterprises. This will not only enrich the existing relevant theoretical research results, but also provide theoretical support and scientific guidance for the improvement of the rapid development of IT projects.

Objectives of the study

This study aimed to determine managers' assessment of the risk factors and project return on investment (ROI) among information technology (IT) companies in Zhoukou City, China.

The study has the following specific objectives:

1. Determine the profile of IT companies in terms of (a) loss-making projects, (b) profitable projects, (c) project completion time, (d) years in operation, and (e) number of employees.

2. Determine the managers' assessment of the risk factors--*market risks* (market demand risk, interest rate risk, exchange rate risk, and commodity price risk); *organization and management risks* (innovation technology risk, change in design risk, information risk, material risk, management capability risk, institutional risk, and personnel risk); and *financial risks* (cash flow risk, profitability risk, operation capacity risk, and solvency risk) among IT companies taken as a whole group and classified according to (a) loss-making projects (b) profitable projects, (c) project completion time, (d) years in operation, and (e) number of employees.

3. Determine the managers' assessment of the project return on investment (ROI) among IT companies taken as a whole group and classified according to (a) loss-making projects (b) profitable projects, (c) project completion time, (d) years in operation, and e) number of employees.

4. Determine if significant differences would exist in the managers' assessment of risk factors--*market risks* (market demand risk, interest rate risk, exchange rate risk, and commodity price risk); *organization and management risks* (innovation technology risk, change in design risk, information risk, material risk, management capability risk, institutional risk, and personnel risk); and *financial risks* (cash flow risk, profitability risk, operation capacity risk, and solvency risk) among IT companies taken as a whole group and classified according to (a) loss-making projects (b) profitable projects, (c) project completion time, (d) years in operation, and (e) number of employees.

5. Determine if significant differences would exist in the managers' assessment of the project return on investment (ROI) among IT companies taken as a whole group and classified according to (a) loss-making projects (b) profitable projects, (c) project completion time, (d) years in operation, and (e) number of employees.

6. Determine if significant relationships would exist among the enterprise profile in terms of loss-making projects, profitable projects, project completion time, years in operation, and number of employees and the managers' assessment of the risk factors--*market risks* (market demand risk, interest rate risk, exchange rate risk, and commodity price risk); *organization and management risks* (innovation technology risk, change in design risk, information risk, material risk, management capability risk, institutional risk, and personnel risk); and *financial risks* (cash flow risk, profitability risk, operation capacity risk, and solvency risk) among IT companies.

7. Determine if significant relationships would exist among the enterprise profile in terms of loss-making projects, profitable projects, project completion time, years in operation, and number of employees; and the managers' assessment of the project return on investment (ROI) among IT companies.

8. Determine if significant relationships would exist in the managers' assessment of the risk factors--*market risks* (market demand risk, interest rate risk, exchange rate risk, and commodity price risk); *organization and management risks* (innovation technology risk, change in design risk, information risk, material risk, management capability risk, institutional risk, and personnel risk); and *financial risks* (cash flow risk, profitability risk, operation capacity risk, and solvency risk) and their

assessment of the project return on investment (ROI) among IT companies.

Theoretical and Conceptual Framework of the Study

Kirkpatrick's four-level model (Kirkpatrick, 1738, in Winfrey, 1999, 2009). In terms of assessment, this study is anchored on Kirkpatrick's four-level model–level 1 – reactions level 2- learning, level 3- transfer, and level 4 - results. Each successive evaluation level is linked with information provided by the lower level. Assessment begins with level one, and then moves through levels two, three, and four. (Kirkpatrick, 1738, in Winfrey, 1999, 2009).

Hawley's (1893, in Kishore, 2020) risk theory of profit. As to risks, this study connects itself to Hawley's (1893, in Kishore, 2020) risk theory of profit. The theory explains that, the main function of an entrepreneur is risk-taking. An entrepreneur coordinates various factors of production and these factors are paid their contractual payments.

Tammala (1994) believed that the main goal of risk identification stage is to form a complete risk description, evaluate alternative risk management decisions and select the most appropriate plan. In the process of handling, it is necessary to identify risks first, so as to determine the types, characteristics and impacts of risks, and then quantify the possible losses caused by various risk factors through assessment.

Investment Theory (WallstreetMojo, 2023). As to project return on investment, this research is related to the investment theory (WallstreetMojo, 2023).

Investment theory suggests that an investment is an adjustment to the capital stock over a specific period. Here, investment is a flow concept, not a stock concept like capital. This implies that capital is computed by taking a short period into account, while investments are computed over a lengthy period.

Financial theory of investment (Duesenberry, in Madhavan, 2018). Also known as the cost of capital theory of investment, assumes that the market rate of interest represents the cost of capital to the firm which does not change with the amount of investment it makes. This study aimed to determine managers' assessment of the risk factors and project return on investment (ROI) among information technology (IT) companies in Zhoukou City, China.

The study assumed that certain identified enterprise profile and risk factors would relate to project return on investment (ROI) among information technology (IT) companies.

The **antecedent variable** was the enterprise profile, classified according to loss-making projects, profitable projects**,** project completion time**,** years in operation, and number of employees.

The **independent variables** were the risk factors classified as to market risks, organization and management risk, and financial risks.

The **dependent variable** was project return on investment (ROI).
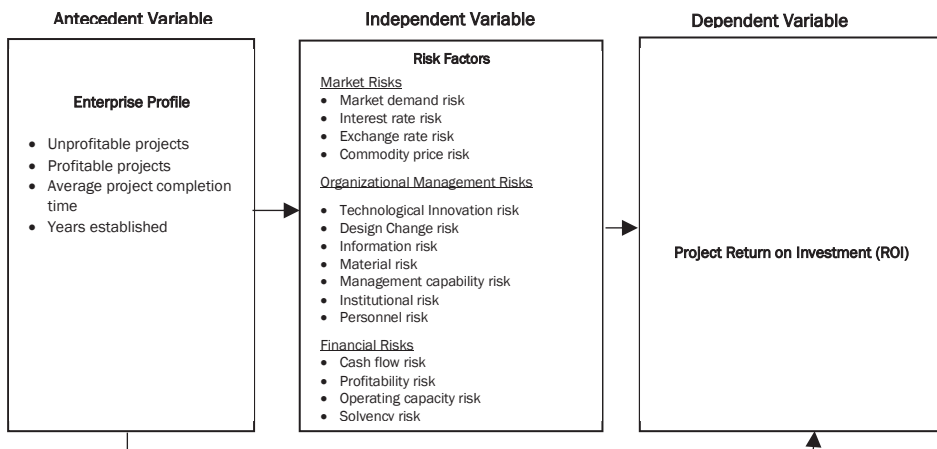
The conceptual framework for this study is shown below:

Figure 1. Conceptual Framework of the Study

Significance of the Study

The findings of the present investigation may be beneficial to the following:

Information Technology (IT) Enterprises: This will provide Zhoukou City IT enterprises with effective investment risk forecast when making project investment.

Other enterprises implementing projects. Other industry enterprises can improve the risk factors of this study according to their own industry characteristics and use them according to local conditions.

Customer: This study provides an effective forecast of the project investment risk of IT enterprises in Zhoukou City, which will effectively replete the venture of project tail and the risk of customers.

Government: Some of Zhoukou's IT projects are realized in cooperation with the government. The safe and stable completion of the projects means the smooth completion of public infrastructure, which boosts the implementation of government policies and urban construction.

Public: Since enterprises avoid project investment risk, and promote the safe and healthy construction of IT projects, the increase of government investment in IT infrastructure will bring convenience to Zhoukou people's life and work which improves people's productivity and life efficiency.

Future Investors: This ROI-based research of Zhoukou IT enterprise project investment risk factors will not only enable enterprises participating in IT projects to avoid the above risk factors of investment in advance, but also takes into account the interests of the government and users.

Scope and Limitation of the Study

This study aimed to determine the managers' assessment of the risk factors and project return on investment (ROI) among information technology (IT) companies in Zhoukou City, China. This survey-correlational research was conducted in November 2023. Forty-nine 49 managers from IT companies in Zhoukou City were selected as respondents, using probability sampling. A researcher-made questionnaire data-gathering instrument was used to gather the data. Frequency counts, percentage analysis, means, and standard deviations were employed in the descriptive analysis. The One-Way ANOVA and the Pearson's r were employed in the inferential analysis. The .05 alpha level was used as the criterion for the acceptance or rejection of the null hypotheses.

Related Literature/Studies

Domestic and foreign scholars in the project investment risk prediction research field has a great space for research. In the research of domestic and foreign researchers, the following points can be found:

(1) Theoretical research on project risk management abroad has been very comprehensive, but domestic research in this aspect is still insufficient. At present, research on project risk management at home and abroad mainly focuses on real estate, PPP projects, electric power, roads and other aspects, and there is almost no project risk research based on IT industry.

(2) In foreign risk prediction analysis, entrepreneurs' comprehensive ability and quality are usually included in the index system, but the index system established by domestic theoretical research institutions pays less attention to this aspect. If more attention is paid to the quality of the project entrepreneur or management team, better evaluation indicators can be established.

(3) In terms of project risk prediction, domestic and foreign experts have carried out a variety of qualitative and quantitative risk prediction methods, but there is almost no prediction of IT project investment risk.

Therefore, on the basis of drawing lessons from other project risk management forecasting experts at home and abroad, the research results of this study can be fully used to carry out the project investment risk forecasting research of IT enterprises in Zhoukou City. Considering the large differences in China's overall policy and cultural background, the study was attuned to China's national business condition.

METHODOLOGY

This study adopted the survey-correlational research design among forty-nine (49) IT companies using a self-constructed questionnaire duly validated by experts. The research was conducted in a manner that guarantees quality and integrity of results. The researcher used Microsoft Excel and SPSS to process and analyze the collected survey data in order to determine the risk factors and ROI of IT enterprise projects in Zhoukou City. For descriptive statistical analysis, the frequency and percentage were used to conduct variable distribution statistics on the business profile, market risk, organizational management risk, financial risk and project risk level determined by (ROI) of Zhoukou IT companies. The Pearson correlation analysis of the first-level variables of Zhoukou IT companies' business profile, market risk, organizational management risk, and financial risk level determined by (ROI) is conducted to determine the correlation between them.

RESULTS AND DISCUSSION

Managers' Assessment of Risk Factors as to Market Risks (Market Demand Risk, Interest Rate Risk, Exchange Rate Risk, and Commodity Risk) Among Information Technology (IT) Companies

*Market demand risk***.** As an entire group, had **medium market demand risk** as assessed among the managers*.*

Interest rate risk. The IT companies, as an entire group, had **low interest rate risk** as assessed among the manager*.*

Exchange rate risk. In all identified categories, the enterprise profile had **very low exchange rate risk** as assessed among the managers.

Commodity risk. The IT companies, as an entire group, had **medium commodity risk** as assessed among the managers. Please see table 2.1.

Managers' Assessment of Risk Factors as to Organizational Management Risks (Technological Innovation Risk, Design Change Risk, Information Risk, Material Risk, Management Capability Risk, Institutional Risk, and Personnel Risk) Among Information Technology (IT) Companies

Technological Innovation risk. The IT companies, as an entire group, had **low technological innovation risk** as assessed among the managers*.* This was revealed by obtained mean scores which fell within the 1.80-2.59 range.

Design Change risk. The IT companies, as an entire group, had **low change in design risk** as assessed among the managers*.* This was revealed by obtained mean scores which fell within the 1.80-2.59 range.

Information risk. The IT companies, as an entire group, had **low information risk** as assessed among the managers*.* This was revealed by obtained mean scores which fell within the 1.80-2.59 range.

Material risk. The IT companies, as an entire group, had **low material risk** as assessed among the managers*.* This was revealed by obtained mean scores which fell within the 1.80-2.59 range. The obtained standard deviations which ranged from .69-1.70 revealed the narrow dispersion of the obtained means, indicating the managers' homogeneity in terms of their assessment of the material risk among IT companies.

Management capability risk. Except for IT companies established for more than 13 years (M = 2.71, SD = 1.49) and those with 4-8 months average project completion time (M = 2.72, SD = .93), assessed by the managers as having **medium management capability risk**, all the other IT companies classified in the rest of the identified categories had **very low management capability risk**.

Institutional risk. The IT companies, in all categories of the identified enterprise factors had **very low institutional risk** as assessed among the managers. This was revealed by obtained mean scores which fell within the 1.00-1.79 range.

Personnel risk. The IT companies, as an entire group, had **low personnel risk** as assessed among the managers.

Managers' Assessment of Risk Factors as to Financial Risks (Cash Flow Risk, Profitability Risk, Operation Capacity Risk, and Solvency Risk) Among Information Technology (IT) Companies

Cash flow risk. Data in Table 2.3 reveal that the IT companies, as an entire group, had **low cash flow risk** as assessed among the managers. This was revealed by obtained mean scores which fell within the 1.80-2.59 range.

Profitability risk. With the exception of IT companies with more than 100 profitable projects (*M* = 3.00, *SD* = 1.41) and those with 11-20 employees (*M*= 2.67, *SD* = 1.22) assessed by managers as having **medium profitability risk**, the IT companies in all other identified categories of the enterprise profile was assessed as having **low profitability risk**. This was shown by obtained mean scores which fell within the 1.80-2.59 range. The obtained standard deviations which ranged from .00-1.41 revealed the narrow dispersion of the obtained means, indicating the managers' homogeneity in terms of their assessment of the profitability risk among IT companies.

Operation capacity risk. As an entire group, IT companies had **low operation capacity risk** as assessed among the managers. This was revealed by obtained mean scores which fell within the 1.80-2.59 range. This was revealed by obtained mean scores which fell within the 2.60-3.39 range.

Solvency risk. The IT companies, as an entire group, had **low solvency risk** as assessed among the managers. This was revealed by obtained mean scores which fell within the 1.80-2.59 range.

Managers' Assessment of the Project Return on Investment (ROI) Among IT Companies

As an entire group, the IT companies had **low project return on investment** as assessed among the managers. On the other hand, the following IT companies had **medium** projected return on investment as assessed among the managers: those with 1-5, 6-11, and 12 or more unprofitable projects; those established for more than 13 years; and those with 4-8 months average completion time. This was revealed by obtained mean scores which fell within the 2.60-3.39 range.

IT companies with more than 100 projects (M = 3.50, SD = 1.29) had **high** project return on investment as assessed among the managers (see Table 3).

CONCLUSIONS AND RECOMMENDATION

Conclusion

In view of the findings, the following conclusions were drawn:

1. The IT companies in this research appear to relish profitable projects considering their shorter stint in the business. In addition, they tend to complete their contracts in a much shorter time, usually less than four months and are manned by fewer employees.

Very young indeed, the IT enterprises in this research, seem robust in terms of their ability to crack a promising future in the industry.

2. The possibility of experiencing significant losses that the IT company might experience in the future due to factors that influence the performance of the overall market in which the operation look low-slung and intermediate. There seems to be an indication that, like other business enterprises, the IT companies are not spared of risks—market risks, organizational management risks, and financial risks.

3. There seems to be an indication that IT companies are near to the ground in terms of returns on project investments. There has to be a static index to measure the rate of return of the investment project, given a normal operation year. Low as it seems, the advantages and disadvantages of investment, whose economic significance is not very clear, understandable, nor calculable, could result to modest, if not conservative assessment of project return on investment among the managers.

4. Loss-making projects was a factor found to significantly influence the financial risks in terms of cash flow risk, in favor of those with 6-11 loss-making projects and operational capacity risk, in favor of 1-5 loss-making projects--assessed moderately experienced among IT companies.

It appears that the length of registration with the government is a symbol of strength coupled with the long experience of the enterprise in the construction project.

Number of employees was a factor to significantly influence the financial risks in terms of profitability risk, and solvency risk, both in favor of those with 10-20 employees—assessed moderate among the managers.

5. Project completion time is a factor found to positively and significantly influence the project return on investment among IT companies. It interesting to note that, being efficient, that is, completing the project on time or earlier, as exemplified by IT companies in this research, can boost the project's return on investment.

6. Profitable projects and loss-making are factors found to significantly affect commodity price risk. This explains that the profits derived from a project may be linked with the changing prices of commodities, posing as potential risk.

7. Profitable projects and loss-making projects were factors found to significantly affect project return on investment among IT companies. The cost of already priced projects that is lower than the revenue or those that exceeds revenue tend to yield substantial consequences on IT companies' project return on investment.

8. Market risks such as market demand risk, interest rate risk, and commodity price risk; organizational management risks such as change in design risk and information risk; and financial risks such as cash flow risk, profitability risk, operation capacity risk, and solvency risk were factors found to significantly affect project return on investment.

Recommendation

In view of the findings and conclusions, the following are recommended:

1. The IT enterprises in Zhoukou City can now refer to the findings concerning the market risks, organizational management risks, and financial risks impinging upon project return of investment.

2. Study results can provide an effective reference for project investments by other enterprises implementing similar projects. They can identify the risk factors integral to their companies and devise strategies to minimize or control risks affecting their business operations.

3. The customers will be greatly informed of the predicament of IT companies in terms of the risks involved and the project return on investment. As such they will be guided by the pricing strategies and other organization and management activities vital to strengthen their company-customer relationship.

4. Since some of Zhoukou City's IT projects are realized in cooperation with the government, through the findings, safe and stable completion of the projects could be realized, thus, the smooth completion of public infrastructure, which will eventually boost the implementation of government policies on urban construction. Through the finding, policies creating, protecting and improving IT ventures in the area could be instituted. A public-private partnership for development of IT infrastructure is highly recommended.

5. The general public may find the findings useful. The market risks, organizational management risks, and financial risks associated with project investments among IT companies could help them understand how IT project investments in Zhoukou City are operated.

6. Replication of the present study is suggested. Future researchers may consider expanding the coverage to other cities in China to truly validate the findings of this research. They may endeavor to

consider other variables such as financial ratios, investment indices for IT companies, capitalization, sustainability and the like.

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Managers' Assessment of the Enterprise Dynamic Capability and Competitive Advantage and Customers' Assessment of Value Co-creation among Tourism Enterprises in Henan Province

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Abstract

This study, which aimed to determine the dynamic capability and competitive advantage as assessed by the managers and value co-creation as assessed by the customers among tourism enterprises in Henan province in China, utilized the descriptive-correlational research design. The respondents were 345 customers and 345 managers selected from tourism enterprise. Data was processed by SPSS 25.0. The study found that the value co-creation of the customers was significantly related to gender and monthly income of the customers. The dynamic capability of tourism enterprise was significantly related to establishment years, total number of employees and star rating of the enterprise. The competitive advantages of tourism enterprises were significantly correlated with establishment years, total number of employees and star rating. There was a significant relationship among the managers' assessment of dynamic capability and competitive advantage and the customers' assessment of value co-creation among the tourism enterprises.

Keywords: dynamic capability, competitive advantage, value co-creation, tourism enterprises

INTRODUCTION

Background and Rationale of the Study

At present, there is a gap in which the total supply of tourism industry cannot meet the total demand of tourism (He, 2018). There is a serious imbalance and dislocation between supply and demand between the demand of tourists and the tourism market. The sustainable development of tourism must eliminate this structural imbalance.

Value Co-creation can help tourism enterprises to quickly obtain the needs of tourists and realize the optimal allocation of tourism elements (Galvagno, 2014). Therefore, it is very important to study the Value Co-creation from a macro enterprise perspective. Value creation theory believes that manipulation resources is the fundamental source of competitive advantage (Vargo et al., 2016). Therefore, for tourism enterprises, value creation is the key source of enhance competitive advantage.

Dynamic capability are essential to the survival and growth of firms in a changing environment, and that they help firms to cope with changes in the environment and reconfigure their resources (Decarolis et al., 2012; Dong et al., 2011). As China is currently in a critical period of industrial upgrading and economic transformation, the changing and uncertain environment faced by tourism companies requires us to analyze the acquisition of competitive advantage by tourism companies from the perspective of dynamic capability.

Objectives of the Study

This study aimed to determine the dynamic capability and competitive advantage as assessed by the managers and value co-creation as assessed by the customers among tourism enterprises in Henan province in China. The study has the following specific objectives:

1. Determine the managers' assessment of dynamic capability in terms of sensing capability, integration capability, reconstructing capability, and overall dynamic capability among the tourism enterprises.

2. Determine the managers' assessment of competitive advantage in terms of cost-based advantage, differentiated service-based advantage, first-mover advantage, time-based advantage, technology-based advantage, and overall competitive advantage among tourism enterprises.

3. Determine the value co-creation in terms of dialogue, acquisition, risk reduction, transparency, and overall value co-creation among the tourism enterprises as assessed among the customers.

4. Determine if significant relationships would exist among the tourism enterprises' profile in terms of type of enterprise, years established, number of employees, and star rating and the managers'

assessment of dynamic capability.

5. Determine if significant relationships would exist among the tourism enterprises' profile in terms of type of enterprise, years established, number of employees, and star rating and the managers' assessment of competitive advantage.

6. Determine if significant relationships would exist among the customers' profile in terms of sex, age, educational attainment, and average monthly income and the customers' assessment of value co-creation.

7. Determine if significant relationships would exist among the managers' assessment of overall dynamic capability and competitive advantage and the customers' assessment of overall value co-creation among the tourism enterprises.

Hypotheses

1. No significant relationships would exist among the tourism enterprises' profile and the managers' assessment of dynamic capability.

2. No significant relationships would exist among the customers' profile and their assessment of competitive advantage.

3. No significant relationships would exist among the customers' profile and the customers' assessment of value co-creation.

4. No significant relationships would exist among the managers' assessment of overall dynamic capability and competitive advantage the customers' assessment of value co-creation among the tourism enterprises.
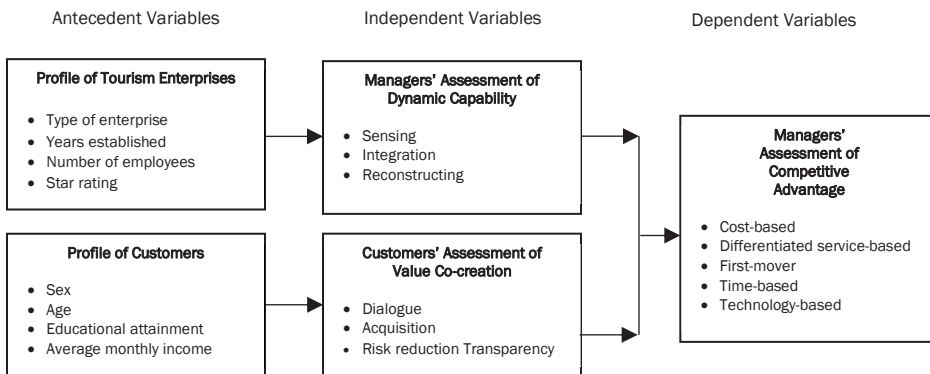
Conceptual Framework of the Study

Figure 1. Conceptual Framework of the Study

Definition of Terms

Dynamic capability is the ability of enterprises to continuously integrate, reconstruct, update and create their resources and capability (Teece, 1997). In this study, dynamic capability of tourism enterprises refers to the ability of tourism enterprises to maintain and develop competitive advantages, measured by sensing capability, integration capability and reconstructing capability.

The competitive advantage is the attribute of tourism enterprises to occupy a high performance level and leading position in the industry with the cost and differentiation by making use of their scarce resources and capability (Du H., 2020). In this study, the competitive advantage of tourism enterprises refers to the ability to respond quickly and correctly to changes in the tourism market, and can also be higher than the average of the same industry in other aspects such as research and development and innovation of tourism products. Corporate competitive advantage was measured by cost-based,

differentiated-service based, first-mover, time-based and technology-based competitive advantage.

Value Co-creation refers to tourism enterprises take value creation as the starting point, and arrange, organize, manage and evaluate Value Co-creation activities according to the resources of tourism enterprises (Ramirez & Garcia-Penalvo, 2018). In this study, value co-creation refers to customers providing tourism enterprises with their needs based on their own consumption experience, experience, own cultural knowledge background and other factors, so as to realize the value co-creation of customers and tourism enterprises, measured in terms of dialogue, acquisition, risk reduction, and transparency.

Significance of the Study

The results of this study are beneficial to the following:

Tourism enterprises. This study can attach tourism enterprises to Value Co-creation activities and dynamic capability, and provide guidance for the acquisition of competitive advantage of tourism enterprises.

Customers. This study focuses on value co-creation between customers and tourism enterprises, which is conducive to providing customers with personalized tourism products and services and enhancing customer satisfaction.

Provincial government. This study can put forward theoretical guidance and strategic support for government institutions to support tourism enterprises for Value Co-creation and dynamic capacity.

Future researchers. No scholars have yet explored the relationship between Value Co-creation and competitive advantage, and this study can provide a reference for relevant scholars.

Scope of the Study

This study was conducted in Henan Province, China. This study used random sampling to distribute questionnaires, and collect data between February and March 2022. This study was limited to Henan Province, involving 345 tourism enterprises and 345 customers.

METHODOLOGY

Research Design

This study utilized the descriptive - correlational research methods. It used a self-assessed questionnaire to gather primary data from the respondents

Respondents of the Study

The respondents of this study were the 345 customers and 345 managers connected with tourism enterprises, including scenic spots, travel agencies, hotels and exhibition companies.

Research Instrument

This research utilized a researcher-made questionnaire to gather the primary data. There were two sets of questionnaires, one set of customer-respondent questionnaires and one set of manager-respondent questionnaires.

Validity and Reliability of the Questionnaire

The questionnaire were subjected to validity test by requesting 5 experts in the field to give their suggestions and comments.

The formulated questionnaires were initially pre-tested to 100 respondents, and then was modified and were given to some college specialists for the validation of its contents. The SPSS 25.0 was used to check the reliability of the questionnaire.

Data Gathering Procedure

The researcher distribute the questionnaires to the respondents. After sometime, the questionnaires were retrieved and reviewed for the completeness and accuracy of the responses.

Data Processing and Analysis

Data were processed by SPSS 25 software.

Data was analyzed using the following:

1. Descriptive statistics: arithmetic mean, frequency and standard deviation.

2. The correlation matrix was used to determine the relationships between the independent and dependent variables.

RESULTS AND DISCUSSION

Managers' Assessment of Dynamic Capability in Terms of Sensing Capability, Integration Capability, Reconstructing Capability, and Overall Dynamic Capability Among the Tourism Enterprises

Data in Table 1 reveal that, in terms of sensing capability, the tourism enterprises were highly capable as assessed among the managers (mean scores3.40-4.19).

In terms of integration capability, the tourism enterprises were assessed capable among the managers (mean scores: 2.60-3.39).

In terms of reconstructing capability. The tourism enterprises were assessed somewhat capable among the managers (mean scores: 1.80-2.59).

The overall dynamic capability of the tourism enterprises were assessed capable among the managers (mean scores: 2.60-3.39).

Table 1
Managers' Assessment of Dynamic Capability

Category	Sensing Capability SD	M	Description	Integration Capability SD	M	Description	Reconstructing Capability SD	M	Description	Overall Dynamic Capability SD	M	Description
A. Entire group	.51	3.75	Highly capable	.53	3.28	Capable	.46	1.80	Somewhat capable	.31	2.94	Capable
B. Tourism Enterprise Type												
Scenic	.46	3.81	Highly capable	.59	3.25	Capable	.41	1.79	Less capable	.29	2.95	Capable
Hotel	.59	3.70	Highly capable	.55	3.27	Capable	.41	1.74	Less capable	.33	2.90	Capable
Travel agency	.42	3.71	Highly capable	.47	3.49	Capable	.42	1.92	Somewhat capable	.42	1.92	Somewhat capable
Exhibition	.33	3.87	Highly capable	.51	3.25	Capable	.94	2.17	Somewhat capable	.41	3.12	Capable
Others	.44	3.78	Highly capable	.71	3.11	Capable	.44	1.67	Less capable	.22	2.85	Capable
C. Years Existed												
5 years and below	.43	3.81	Highly capable	.49	3.30	Capable	.42	1.71	Less capable	.26	2.94	Capable
6-10 years	.64	3.58	Highly capable	.59	3.12	Capable	.39	1.86	Somewhat capable	.37	2.85	Capable
Above 10 years	.41	3.85	Highly capable	.48	3.97	Highly capable	.54	1.83	Somewhat capable	.27	3.02	Capable
D. Number of Employees												
1-20 employees	.40	3.77	Highly capable	.52	3.31	Capable	.42	1.73	Less capable	.28	2.93	Capable
21-50 Employees	.73	3.61	Highly capable	.52	3.31	Capable	.40	1.82	Somewhat capable	.38	2.81	Low Risk
51-100 employees	.39	3.83	Highly capable	.47	3.39	Capable	.42	1.83	Somewhat capable	.21	3.01	Capable
101 employees and up	.44	3.79	Highly capable	.50	3.40	Highly capable	.59	1.82	Somewhat capable	.33	3.00	Capable
E. Star Rating												
Below 3 stars	.44	3.75	Highly capable	.50	3.31	Capable	.40	1.83	Somewhat capable	.37	2.84	Capable
3 stars	.67	3.62	Highly capable	.64	3.14	Capable	.42	1.75	Less capable	.37	2.83	Capable
4 stars	.43	3.81	Highly capable	.45	3.34	Capable	.43	1.84	Somewhat capable	.24	3.00	Capable
5 stars	.40	3.85	Highly capable	.47	3.36	Highly capable	.58	1.80	Somewhat capable	.31	3.00	Capable

Note: Range of Mean Scores (Interpretation): 4.20 – 5.00 (Very highly capable); 3.40 - 4.19 (Highly capable); 2.60 – 3.39 (Capable); 1.80 – 2.59 (Somewhat capable); 1.00 – 1.79 (Less capable)

Managers' Assessment of Competitive Advantage in Terms of Cost-based Advantage, Differentiated Service-based Advantage, First-mover Advantage, Time-based Advantage, Technology-based Advantage, and Overall Competitive Advantage Among the Tourism Enterprises

Data in Table 2 reveal that, in terms of cost-based advantage, the tourism enterprises were highly competitive as assessed among the managers(mean scores:3.40-4.19).

In terms of differentiated service-based advantage, the tourism enterprises were highly competitive as assessed among the managers (mean scores: 3.40-4.19).

In terms of first-mover advantage, the tourism enterprises were slightly competitive as assessed among the managers (mean scores: 1.80-2.59).

In terms of time-based advantage, the tourism enterprises were highly competitive as assessed among the managers (mean scores: 3.40-4.19).

In terms of technology-based advantage, the tourism enterprises were competitive as assessed among the managers (mean scores: 2.60-3.39).

In terms of overall competitive advantage, the tourism enterprises were assessed competitive among the managers (mean scores: 2.60-3.39).

Table 2
Managers' Assessment of Competitive Advantage

Category	Cost-Based Advantage SD	M	Description	Differentiated Service-based Advantage SD	M	Description	First-mover Advantage SD	M	Description	Time-based Advantage SD	M	Description	Technology-based Advantage SD	M	Description	Overall Competitive Advantage SD	M	Description
A. Entire group	.59	3.91	Highly competitive	.58	3.91	Highly competitive	.43	2.16	Slightly competitive	.74	3.67	Highly competitive	.50	2.97	Competitive	.33	3.32	Competitive
B. Tourism Enterprise Type																		
Scenic	.51	4.00	Highly competitive	.48	3.98	Highly competitive	.37	2.19	Slightly competitive	.71	3.61	Highly competitive	.47	2.88	Competitive	.26	3.35	Competitive
Hotel	.65	3.84	Highly competitive	.67	3.89	Highly competitive	.37	2.11	Slightly competitive	.79	3.67	Highly competitive	.51	3.01	Competitive	.39	3.29	Competitive
Travel agency	.63	3.87	Highly competitive	.55	3.81	Highly competitive	.50	2.10	Slightly competitive	.63	3.78	Highly competitive	.48	2.97	Competitive	.30	3.28	Competitive
Exhibition	.47	4.07	Highly competitive	.29	3.93	Highly competitive	.82	2.56	Slightly competitive	.87	3.88	Highly competitive	.61	3.09	Competitive	.33	3.48	Highly competitive
Others	.34	3.81	Highly competitive	.58	4.00	Highly competitive	.33	2.22	Slightly competitive	.37	3.67	Highly competitive	.56	3.19	Competitive	.21	3.42	Highly competitive
C. Years Existed																		
5 years and below	.54	3.92	Highly competitive	.50	4.00	Highly competitive	.39	2.18	Slightly competitive	.75	3.63	Highly Competitive	.50	2.91	Competitive	.26	3.33	Competitive
6-10 years	.75	3.81	Highly competitive	.72	3.74	Highly competitive	.40	2.10	Slightly competitive	.88	3.57	Highly Competitive	.54	2.92	Competitive	.46	3.23	Competitive
Above 10 years	.46	3.98	Highly competitive	.47	3.99	Highly competitive	.49	2.21	Slightly competitive	.56	3.78	Highly Competitive	.23	3.40	Competitive		3.40	Highly competitive
D. Number of Employees																		
1-20 employees	.51	3.97	Highly competitive	.49	4.03	Highly competitive	.40	2.23	Slightly competitive	.87	3.61	Highly competitive	.50	2.96	Competitive	.28	3.36	Competitive
21-51 employees	.78	3.72	Highly competitive	.80	3.71	Highly competitive	.38	2.14	Slightly competitive	.86	3.42	Highly competitive	.53	2.87	Competitive	.49	3.17	Competitive
51-100 employees	.51	3.96	Highly competitive	.44	3.91	Highly competitive	.42	2.14	Slightly competitive	.58	3.75	Highly competitive	.49	3.00	Competitive	.23	3.35	Competitive
101 employees and up	.49	3.98	Highly competitive	.50	4.01	Highly competitive	.52	2.15	Slightly competitive	.57	3.87	Highly competitive	.48	3.05	Competitive	.24	3.41	Competitive
E. Star Rating																		
Below 3 stars	.44	3.91	Highly competitive	.46	3.95	Highly competitive	.43	2.19	Slightly competitive	.85	3.54	Highly competitive	.44	2.95	Competitive	.25	3.31	Competitive
3 stars	.77	3.73	Highly competitive	.81	3.79	Highly competitive	.34	2.11	Slightly competitive	.80	3.51	Highly competitive	.51	2.91	Competitive	.47	3.21	Competitive
4 stars	.48	4.04	Highly competitive	.44	3.94	Highly competitive	.42	2.17	Slightly competitive	.57	3.82	Highly competitive	.49	3.03	Competitive	.22	3.40	Competitive
5 stars	.51	3.98	Highly competitive	.45	3.99	Highly competitive	.54	2.19	Slightly competitive	.67	3.81	Highly competitive	.55	2.99	Competitive	.27	3.39	Competitive

Note: Range of Mean Scores (Interpretation): 4.20 – 5.00 (Very highly competitive); 3.40 - 4.19 (Highly competitive); 2.60 – 3.39 (Competitive); 1.80 – 2.59 (Slightly competitive); 1.00 – 1.79 (Not competitive)

Customers' Assessment of Value Co-Creation in Terms of Dialogue, Acquisition, Risk Reduction, and Transparency among the Tourism Enterprises

In terms of dialogue, the tourism enterprises were assessed very good among the customers (mean scores: 3.40-4.19).

In terms of acquisition, the tourism enterprises were assessed good among the customers (mean scores: 2.60-3.39).

In terms of risk reduction, the tourism enterprises were assessed fair among the customers (mean scores: 1.80-2.59).

In terms of transparency, the tourism enterprises were assessed very good among the customers (mean scores: 3.40-4.19).

Overall Value Co-creation. The tourism enterprises were assessed good among the customers (mean scores: 2.60-3.39).

Table 3
Customers' Assessment of Value Co-Creation

	Dialogue			Acquisition			Risk Reduction			Transparency			Overall Value Co-creation		
Category	SD	M	Description	SD	M	Description	SD	M	Description	SD	M	Description	SD	M	Description
A. Entire group	.59	3.91	Very good	.43	3.32	Good	.50	2.00	Fair	.62	3.89	Very good	.36	3.28	Good
B. Sex															
Male	.55	3.98	Very good	.41	3.34	Good	.52	2.00	Fair	.59	3.95	Very good	.34	3.32	Good
Female	.62	3.82	Very good	.46	3.29	Good	.48	2.00	Fair	.64	3.79	Very good	.38	3.23	Good
C. Age															
Below 25 years old	.62	3.86	Very good	.51	3.31	Good	.48	1.96	Fair	.65	3.88	Very good	.41	3.25	Good
26-33 years old	.67	3.87	Very good	.48	3.28	Good	.46	1.97	Fair	.68	3.84	Very good	.40	3.24	Good
34-41 years old	.49	3.98	Very good	.32	3.35	Good	.32	2.05	Fair	.54	3.92	Very good	.27	3.28	Good
D. Educational Attainment															
High School graduate	.59	3.92	Very good	.42	3.34	Good	.49	1.99	Fair	.62	3.87	Very good	.35	3.28	Good
College graduate	.68	3.83	Very good	.47	3.27	Good	.45	1.96	Fair	.71	3.80	Very good	.43	3.21	Good
Postgraduate	.46	4.00	Very good	.39	3.35	Good	.56	2.07	Fair	.46	4.00	Very good	.26	3.35	Good
E. Average Monthly Income															
Below ¥5000	.63	3.93	Very good	.48	3.28	Good	.48	1.93	Fair	.69	3.90	Very good	.43	3.26	Good
¥5001-¥10000	.69	3.78	Very good	.52	3.22	Good	.50	1.98	Fair	.74	3.73	Very good	.44	3.19	Good
¥1001-¥15000	.47	3.99	Very good	.31	3.39	Good	.47	2.03	Fair	.47	3.98	Very good	.22	3.35	Good
Above ¥15000	.25	4.06	Very good	.34	3.44	Very good	.94	2.33	Fair	.44	3.94	Very good	.34	3.44	Good

Note: Range of Mean Scores (Interpretation): 4.20 – 5.00 (Excellent); 3.40 - 4.19 (Very good); 2.60 – 3.39 (Good); 1.80 – 2.59 (Fair); 1.00 – 1.79 (Poor)

Relationships among the Tourism Enterprises' Profile in Terms of Type of Enterprise, Number of Employees, and Star Rating and the Managers' Assessment of Dynamic Capability in Terms of Sensing Capability, Integration Capability, Reconstructing Capability, and Overall Dynamic Capability

The Pearson's *r* results in Table 4 reveal that positive and significant relationships existed between years established and dynamic capability (r = .123, p = .023); between number of employees and integration capability (r = .148, p = .006); between number of employees and dynamic capability (r = .152, p = .005); between star rating and sensing capability (r = .111, p =.039); and between star rating and dynamic capability (r = .111, p =.039).

Table 4
Relationships among the Tourism Enterprises' Profile and the Managers' assessment of Dynamic Capability

	Dynamic Capability							
Values (n=345)	Sensing Capability		Integration Capability		Reconstructing Capability		Overall Dynamic Capability	
	r	r prob.	r	r prob.	r	r prob.	r	r prob.
Tourism Enterprises' Profile								
Type of Enterprise	-.022	.683	.035	.515	.105	.051	.060	.396
Years Established	.046	.395	.086	.109	.098	.070	.123*	.023
Number of Employees	.067	.216	.148**	.006	.064	.236	.152*	.005
Star Rating	.111*	.039	.088	.101	-.001	.985	.111*	.039

*p <.05   **p <.01

Relationships Among the Tourism Enterprises' Profile in Terms of Type of Enterprise, Number of Employees, and Star Rating and the Managers' Assessment of Competitive Advantage in Terms of Cost-based Advantage, Differentiated Service-based Advantage, First-mover Advantage, Time-based Advantage, Technology-based Advantage, and Overall Competitive Advantage

The Pearson's r results in Table 5 reveal that positive and significant relationships between type of enterprise and technology-based advantage (r = .122, p = .023); between years established and technology-based advantage (r = .124, p = .021) ; between years established and competitive advantage (r = .107, p = .048); between number of employees and time-based advantage (r = .171, p = .001); between number of employees and competitive advantage (r = .119, p = .027); between star rating and cost-based advantage (r =.112, p = .037); between star rating and time-based advantage (r = .167, p = .002); and between star rating and competitive advantage (r = .157, p = .003).

Table 5
Relationships among the Tourism Enterprises' Profile and the Managers' Assessment of Competitive Advantage

Values (n=345)	Competitive Advantage											
	Cost-Based Advantage		Differentiated Service-based Advantage		First-mover Advantage		Time-based Advantage		Technology-based Advantage		Overall Competitive Advantage	
	r	r prob.	r	r prob.	r	r prob.	r	r prob.	r	r prob.	r	r prob.
Tourism Enterprises' Profile												
Type of Enterprise	-.046	.396	-.052	.337	.064	.235	.023	.665	122*	.023	.029	.587
Years Established	.053	.326	.006	.905	.032	.554	.091	.092	124*	.021	.107*	.048
Number of Employees	.054	.314	.037	.492	-.060	.264	.171**	.001	)91	.092	.119*	.027
Star Rating	.112*	.037	.061	.258	.022	.683	.167**	.002	)56	.300	.157**	.003

* $p < .05$ ** $p < .01$

Relationships among the Customers' Profile in Terms of Sex, Age, Educational Attainment, and Average Monthly Income and Their Assessment of Value Co-creation in Terms of Dialogue, Acquisition, Risk Reduction, Transparency, and Overall Value Co-creation

The Pearson's r results in Table 6 reveal that positive and significant relationships existed between sex and transparency (r = .127, p = .018); average monthly income an acquisition (r = .144, r = .007); and between average monthly income and value co-creation (r = .153, p = .005).

Table 6
Relationships among the Customers' Profile and Their Assessment of Value Co-Creation

Values (n=345)	Value Co-creation									
	Dialogue		Acquisition		Risk Reduction		Transparency		Overall Value Co-Creation	
	r	r prob.	r	r prob.	r	r prob.	r	r prob.	r	r prob.
Customers' Profile										
Sex	-.130*	.016	-.052	.337	-.014	.792	.127*	.018	-.129*	.017
Age	.093	.085	.051	.345	.077	.155	.032	.554	.094	.080
Educational Attainment	.045	.402	.001	.989	.060	.270	.077	.154	.073	.176
Average Monthly Income	.087	.107	.144**	.007	.101	.061	.088	.104	.153**	.005

* $p < .05$ ** $p < .01$

Relationships among the Managers' Assessment of Dynamic Capability and Competitive Advantage and Customers' Assessment of Value Co-Creation

The Pearson's r results in Table 7 reveal that positive and significant relationships existed between dynamic capability and competitive advantage (r = .446, p = .000); between the managers assessment of dynamic capability and value co-creation (r = .117, p = .029); and between competitive advantage and value co-creation (r = .266, p = .000).

Table 7
Relationships among the Managers' Assessment of Overall Dynamic Capability and Competitive Advantage and the Customers' Assessment of Overall Value Co-Creation

Values (n=345)	Managers' Assessment of Dynamic Capability		Managers' Assessment of Competitive Advantage		Customers' Assessment of Value Co-Creation	
	r	r prob.	r	r prob.	r	r prob.
Managers' assessment of dynamic capability	-	-	.446**	.000	.117*	.029
Managers' assessment of competitive advantage	-	-	-	-	.266**	.000
Customers' assessment of value co-creation	-	-	-	-	-	-

CONCLUSIONS

On the basis of the findings presented, these are the conclusions:

1. In terms of dynamic capability, the tourism enterprises were assessed highly capable as to sensing capability and somewhat capable as to overall dynamic capability and were generally assessed capable as to integration capability and somewhat capable as to reconstructing capability among the managers.

2. In terms of competitive advantage, the tourism enterprises were assessed highly competitive as to cost - based advantage, differentiated service - based advantage, and time - based advantage; competitive as to technology - based advantage; slightly competitive as to first - mover advantage; and generally competitive as to overall competitive advantage.

3. In terms of value co - creation, the tourism enterprises were assessed very good as to dialogue, fair as to risk reduction, very good as to transparency, and very good as to overall value co - creation and generally good as to acquisition.

4. The dynamic capacity of tourism enterprises is significantly related to the number of years of establishment, the total number of employees and the star level of tourism enterprises.

5. The competitive advantages of tourism enterprise value is significantly related to establishment years. There was a significant difference in the competitive advantage of tourism enterprises in the total number of employees. The competitive advantage of tourism enterprise value is significantly related to star rating.

6. Tourism enterprise value co-creation has a significant relationship with gender and monthly income of the customers.

7. Value co-creation has a significant relationship with enterprise competitive advantage. Dynamic capabilities have a significant relationship with competitive advantage of enterprises.

RECOMMENDATIONS

Premised on the findings and conclusions above, the following are the recommendations:

Tourism enterprises should improve the value co-creation organization, innovate the ecosystem, enhance dynamic capabilities, and enhance the competitive advantage of tourism enterprises.

Customers should actively feedback their real feelings when consuming tourism products and co-create value with tourism enterprises.

The provincial government should actively provide more guarantees for enterprises, such as low-interest loans, tax reduction, etc., to enhance the dynamic ability of tourism enterprises to cope with risks. The government should also actively hold enterprise exchange meetings to enhance tourism enterprises' value co-creation and competitive advantage.

Researchers should further explore the relationship between value co-creation, dynamic capabilities and competitive advantages, and promote the improvement of tourism enterprises' competitive advantages.

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