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銀行管理者創業導向結構方程模式分析應用－以一家國營銀行為例

APPLYING ENTREPRENEURIAL ORIENTATION STRUCTURAL EQUATION MODEL ANALYSIS ON BANKING MANAGERS - A CASE STUDY FOR A NATIONAL BANK

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摘要

本研究目的在於應用創業導向結構方程模式分析於國內一家國營銀行的管理者上。創業導向的五個重要因素分別為自治、創新性、主動性、風險承擔及競爭積極性。本研究母群體為該國營銀行的所有管理者，根據 1,630 筆蒐集樣本進行最小平方結構方程模式分析（Partial Least Squares - Structural Equation Modelling, PLS-SEM），藉由分析軟體 SmartPLS 3 以分析資料潛在變數之路徑模式。研究結果顯示管理人員的自治與其他 4 個因素具有顯著正向關係；扮演中介因素的創新性對於主動性、風險承擔及競爭積極性有顯著正向影響；另一個扮演中介因素的主動性因素對於風險承擔，以及競爭積極性亦具有顯著正向影響。然而，風險承擔結果因素對於競爭積極性沒有影響。本研究藉由 PLS-SEM 所建構的 EO 因果模式可作為未來學術實務參考用。除此，此因果模式也可與一些重要組織研究議題相結合以形成更精緻的模式。

關鍵字：創業導向、國營銀行、最小平方法結構方程模式

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ABSTRACT

The present study aims to apply entrepreneurial orientation structural equation model analysis on banking managers for a national bank in Taiwan. These five crucial factors of the entrepreneurial orientation are Autonomy, Innovativeness, Proactiveness, Risk Taking, and Aggressive Competitiveness. The population of the study includes the banking managers of a national bank in Taiwan. The 1,630 collected data were analyzed by using the partial least squares structural equation modelling (PLS-SEM) method. The Smart PLS 3 software was applied to analysis the data and path modelling with latent variables. Our findings showed that Autonomy has a positive, significant impact on the other four factors among the managers. Innovativeness as the mediating factor had a significantly positive relationship with Proactiveness, Risk-taking, and Aggressive Competitiveness; the other Proactiveness mediating factor also had a significantly positive relationship with risk-taking, and with Aggressive Competitiveness. Moreover, the risking-taking effect factor had no impact on the Aggressive Competitiveness effect factor. This study has constructed the EO causal model by PLS-SEM as the reference for future academic practice. In addition, this causal model also can connect with some organizational crucial research issues to form more delicate models.

Keywords: Entrepreneurial Orientation, National Bank in Taiwan, Partial Least Squares - Structural Equation Modelling (PLS-SEM)

1. Introduction

1.1 Introduce the Problem

When facing the rapid development of the knowledge economy, the prevalence of information network systems, and the fierce competition of the financial products today, the national banks in Taiwan are declining, even though they had particular resources several decades ago. The national banks in Taiwan now have to face competition with private banks; therefore, product and service innovations have become crucial strategic guidelines and tools for making a profit and ensuring the continued existence of the business. To enter the capital environment of financial globalization, and be more competitive during the drastic changes in the economic environment in Taiwan, it is more obvious on the importance about well adoption on capital, and organizations must continuously reform and innovate to maintain their competiveness and value.

Entrepreneurial Orientation (EO) is one of the many mechanisms applicable to organizational creation and to the exploration of entrepreneurial opportunity (Li, Liu, Wang, Li, & Guo, 2009). A high EO indicates a willingness of firms to do things differently than their peers (Wales, 2016). The characteristics of EO will significantly influence the economic performance of an organization (Lumpkin & Dess, 1996; Lyon, Lumpkin, & Dess, 2000; Mthanti & Ojah, 2017). Since the concept of EO has been the subject of much management and organization research, studying the mechanisms related to entrepreneurial activities seems essential if we are to improve organizational performance.

EO has been associated with high performance firms in some circumstances (Covin & Slevin, 1989; Lumpkin & Dess, 1996; Lomberg, Urbig, Stöckmann, Marino, & Dickson, 2016). Further research shows that the concept of EO can also be applied to individuals (Bolton & Lane, 2012; Rauch, Wiklund, Lumpkin, & Frese, 2009; Robinson & Stubberud, 2014). Some of the personal characteristics most frequently associated with EO include autonomy, competitive aggressiveness, innovativeness, proactiveness and risk-taking (Bolton & Lane, 2012; Fillis & Rentschler, 2010; Hamidi, Wennberg, & Berglund, 2008; Lumpkin & Dess, 1996; Rauch et al., 2009; Robinson & Stubberud, 2014; Ward, 2004).

The present study aims to apply entrepreneurial orientation structural equation model analysis on banking managers for a national bank in Taiwan. In order to achieve the above goal, the contents of the study are to understand demographics of the surveyed samples, and to apply PLS-SEM analysis to construct the measurement model, and the structural model.

1.2 Definition of Entrepreneurial Orientation

EO is a strategy-making process that provides organizations with a basis for entrepreneurial decisions and actions with the purpose of creating a competitive advantage (Covin & Slevin, 1989; Farsi, Rezazadeh, & Najmabadi, 2013; Lomberg et al., 2016; Lumpkin & Dess, 1996; Rauch et al., 2009; Teng, 2007; Wiklund & Shepherd, 2003). EO describes a company's inclination to engage in pursuing market opportunities and revising operational fields (Hult & Ketchen, 2001; Farsi et al., 2013). EO refers to the strategy-making processes that provide organizations with a basis for entrepreneurial decisions and actions (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003; Rauch et al., 2009). Farsi et al. (2013) indicated that many of the existing articles have defined EO using words such as processes, methods and decision-making activities that lead to the development of products or new and innovative services which can distinguish one company from others in the market (Jambulingam,

Kathuria, & Doucette, 2005; Chen, Parker, & Lin, 2006; Naldi, Nordqvist, Sjöberg, & Wiklund, 2007). There is broad empirical evidence supporting a positive relationship between EO and firm performance (Rauch et al., 2009; Wales, Gupta, & Mousa, 2013).

1.3 Relative Theories of Entrepreneurial Orientation

A large stream of research has examined the concept of EO. EO has become a central concept in the domain of entrepreneurship that has received a substantial amount of theoretical and empirical attention (Covin, Greene, & Slevin, 2006). More than 100 studies of EO have been conducted, which has led to wide acceptance of the conceptual meaning and relevance of the concept.

There are a number of causes that potential entrepreneurs need to think about themselves as they look at initiating a new business. Examined in some depth, these issues will shape the entrepreneur's analysis of the potential of any business idea. These include (1) risk tolerance, (2) prior experience, and (3) the personality orientation of the individual (Bamford & Bruton, 2016).

Grable and Lytton (2003) mentioned that the typical advice provided to most individuals is to spend no more than your personal risk tolerance. Hence, if you have a low risk tolerance you need to spend less and save more for that proverbial rainy day. If you have a high risk tolerance, you will spend more, assuming there will not be a rainy day. For a large corporation, there is relatively low individual financial risk. In a normal economic environment, even if a large corporation has a poor year and loses money, it will still be able to meet its payroll, pay the workers' benefits, and not close its door at short notice. There are, however, some specific risks, such as financial risks, strategic risks, and market retaliation risks (Bamford & Bruton, 2016).

The second element of EO is prior experience. Every individual brings to a new business his or her own view of the world. This world view places boundaries on what a decision maker will consider as he or she makes decision. They are set by experiences, history, culture, and family values, among other things. Boundaries help each of us make sense of the world. The term "bounded rationality" refers to the rational decision making that is constrained by the background and history of the person making the decision; it is the presence of bounded rationality that often leads young people to be pioneers in an area, as they are not limited by the restrictions of the past (Bamford & Bruton, 2016).

The third element of EO is an examination of your own personality; some of the more established and validated personality tests such as Myers-Briggs, Enneagram, and the Big Five test, etc. can be taken online. Since this study is focused on a national bank in Taiwan, individual personality is not relevant here; however, a firm's personality also plays a crucial role in business success.

EOs, in order to improve their performance, must have an outlook which encourages risk-taking and innovativeness and so in this way can adapt to the changeable global economy (Lumpkin & Dess, 2001). Firms that intend to successfully trigger organizational entrepreneurship need an EO (Najmabadi, Rezazadeh, & Shoghi, 2013).

Dess and Lumpkin (2005) pointed out that EO proposes a mental framework and an outlook for entrepreneurship which is reflected in the current processes of the company and organizational culture, and stated that the majority of the entrepreneurship researchers believe that organizations with a strong EO achieve their goals more efficiently. Covin and Slevin in their studies suggested that EO is a multi-dimensional structure which can be evaluated from different viewpoints (Chang, Lin, Chang, & Chen, 2007).

2. Constructs of Entrepreneurial Orientation for This Study

Miller (1983) was the first scholar to propose the main framework of the EO dimensions, suggesting specified dimensions for describing EO. Furthermore, Miller (1983) defined an entrepreneurial company as one which is involved in the markets with innovative products, including taking slight risks, leading in innovation, and putting its rivals in a tight spot (Morris, Coombes, Minet, & Allen, 2007; Chang et al., 2007; Farsi et al., 2013).

Consistent with the majority of the extant EO research, Lomberg et al. (2016) consider EO to encompass three dimensions, namely innovativeness, proactiveness, and risk taking (Kreiser, Marino, Kuratko, & Weaver, 2013; Wales et al., 2013; Wales, 2016). These three dimensions best represent the conceptual view of EO (George & Marino, 2011), even though other conceptualizations have added additional dimensions (Lumpkin & Dess, 1996) or have excluded individual dimensions (Merz & Sauber, 1995).

Innovativeness is the reflection of a company's tendency toward new ideas and creative processes, the result of which may exist in new products, services or technological processes.

Risk-taking indicates the tendency of companies to allocate basic resources to projects which have success or failure possibility. Furthermore, risk-taking can refer to the rapid pursuit of opportunities, the rapid provision of resources, and bold activities. Being a leader in the market is a forward-looking characteristic of a market leader who has an outlook toward taking the opportunities in predicting future demand; entrepreneurs in the organization can use this outlook to stimulate employees and to help them in their confrontation with the challenges they face (Lumpkin & Dess, 2001).

Lumpkin and Dess (1996) added two more factors to the cases above, which can play a major role in EO: Competitive aggressiveness and autonomy. Competitive aggressiveness refers to a company's tendency to get involved in hard and direct challenges with competitors to improve its market situation. Companies that aggressively compete and take opportunities with force to achieve profitability may be able to better maintain their competitive advantage in the long term, provided that their target is overtaking rivals and not hitting them (Dess & Lumpkin, 2005).

Autonomy refers to independent activities of people or teams in order to create ideas and implement them. In other words, organizational actors pursue self-control opportunities and independent activities, making key decisions by themselves and implementing new ideas (Chang et al., 2007). Autonomy provides an ambition for organization individuals to identify opportunities and pursue them until they are offered to the market (Lumpkin, Cogliser, & Schneider, 2009).

Overall, specifications of EO extend to methods of decision-making and the actions of an organization's members. These factors, namely innovativeness, risk-taking, proactiveness, competitive aggressiveness, and autonomy, are often in interaction with each other in order to improve the entrepreneurial performance of an organization. Figure 1 depicts the dimensions of EO.

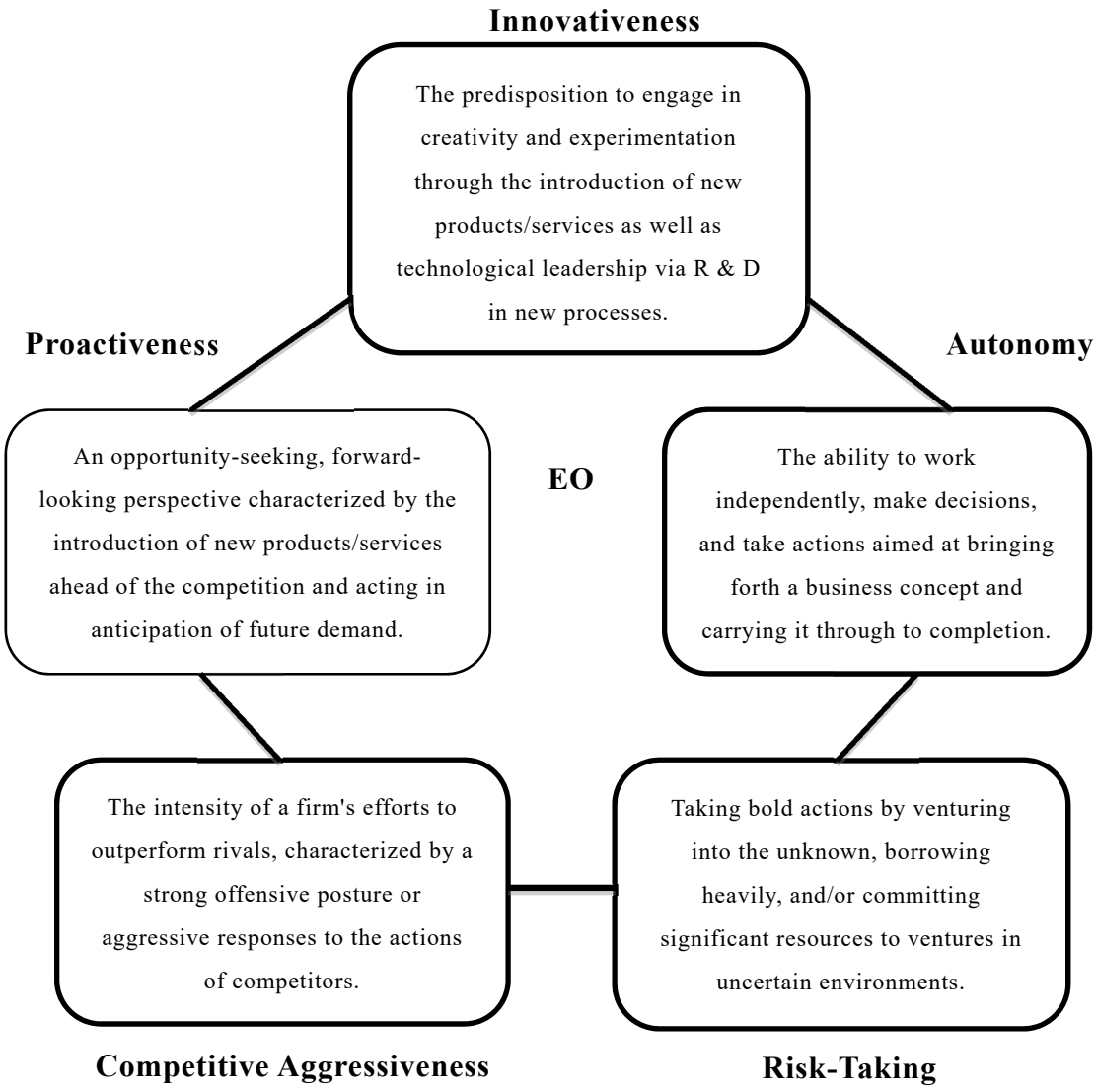

Figure 1 Dimensions of EO
Source: Adopted from Farsi et al. (2013)

3. Method

3.1 Constructs Measurement and Questionnaire Design

The EO scale of this study includes 22 items: the first 8 were adapted from Dess and Lumpkin (2005) to measure autonomy, 5 items for innovativeness and 4 items for risk-taking were taken from Covin and Slevin (1989), 4 items related to proactiveness came from Covin and Wales (2012), and finally 1 item for aggressive competitiveness were adopted from Lumpkin and Dess (2001). The original 22 items of the EO scale were in English, and researcher translated into Chinese and administered 13 bank managers to check readability and reliability. Since no problem about readability by selected 13 bank managers and high reliability (overall scale's Cronbach's $\alpha > 0.9$) was achieved, the formal test was conducted.

All the measurement items were measured on a six-point Likert-type scale that was anchored by 1= strongly disagree to 6= strongly agree. After the measurement variables were developed, the face validity of these variables was tested. Table 1 presents the research constructs and related survey items used for the measurement of each of these constructs.

3.2 Participants and Sampling

The entrepreneurial orientation scale was administered via stratified random sampling through an anonymous Internet questionnaire, with a total of 4,150 sent to banking managers of a public bank in Taiwan. Of these, 1,630 questionnaires were valid (response rate = 39.28%).

3.3 Data Analyses

To analyse our data, we used partial least square-structural equation modelling (PLS-SEM), which employs a component-based approach (Lohmoller, 1989). The SmartPLS 3.2.7 software (Ringle, Wende, & Becker, 2015) was used to conduct the modelling and test our hypotheses. In PLS-SEM, the measurement model refers to the linkages between the latent variables and their manifest variables, and the structural model captures the hypothesized causal relationships among the research constructs (Chin, 2010). PLS-SEM enables the simultaneous examination of both the path (structural) and factor (measurement) models in one model. In addition, PLS-SEM combines a factor analysis with near regressions, and makes only minimal assumptions, with the goal of variance explanation (high R2) (Hair, Hult, Ringle, & Sarstedt, 2017).

Table 1 Measurement items for questionnaire

Construct	Item	Survey questions
Autonomy (AU)	AU1	My firm supports the efforts of individuals and/or teams that work autonomously as compared with requiring individuals and/or teams to rely on senior managers to guide their work
	AU2	My firm expects individuals/teams pursuing business opportunities to justify their actions throughout the development process
	AU3	The top managers of my firm believe that individuals or work groups operate independently and outside the organizational chain of command to get the best results rather than operating within the traditional hierarchy
	AU4	The top managers of my firm believe that individuals and/or teams are most effective if their goals and performance targets are set by their supervisor(s) rather than if they set their own.
	AU5	The managers of my firm believe that the best results occur when individuals and/or teams decide for themselves what business opportunities to pursue
	AU6	In my firm, individuals and/or teams are expected to use existing strategies and standard operating procedures as a basis for decision making as compared with being encouraged to think “outside the box”
	AU7	In my firm, individuals and/or teams pursuing business opportunities make decisions on their own without constantly referring to their supervisors
	AU8	In my firm, the CEO and top management team (rather than employee initiatives and input) play a major role in identifying and selecting the entrepreneurial opportunities my firm pursues
Innovativeness (IN)	IN1	In general, top managers of my firm favor a strong emphasis on the marketing of tried and true products and services as compared with an emphasis on R & D, technological leadership, and innovations
	IN2	In the last five years, my firm has marketed no new lines of products or services as compared with very many new product lines or services
	IN3	In my firm, changes in product or service lines have been mostly of a minor nature as compared with being quite dramatic
	IN4	The top managers of my firm favor experimentation and original approaches to problem solving rather than imitating methods that other firms have used for solving their problems
	IN5	My firm prefers to design its own unique new processes and methods of production rather than adapting methods and techniques that others have developed and proven
Proactiveness (PR)	PR1	In dealing with competition, my firm typically responds to action which competitors initiate as compared with initiating action which the competition then responds to
	PR2	In dealing with competition, my firm is very seldom the first business to introduce new products/services, administrative techniques and operating technologies
	PR3	In dealing with competitors, my firm typically seeks to avoid competitive clashes, preferring a “live-and-let-live” posture (rather than a competitive “undo-the-competitors” posture)

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續 Table 1

	PR4	The top managers of my firm have a strong tendency to "follow the leader" in introducing new products or ideas (rather than being ahead of other competitors in introducing novel ideas or practices)
Risk Taking (RT)	RT1	The top managers of my firm have a strong proclivity for low risk projects (with normal and certain rates of return) rather than high risk projects (with chances of very high return)
	RT2	The top managers of my firm believe that, owing to the nature of the environment, it is best to explore the environment gradually via careful, incremental behavior (rather than bold, wide-ranging acts necessary to achieve the firm's objectives)
	RT3	When confronted with decision-making situations involving uncertainty, my firm typically adopts a cautious, "wait-and-see" posture in order to minimize the probability of making costly decisions (as compared with a bold, aggressive posture to maximize the probability of exploiting potential opportunities)
	RT4	The top managers of my firm prefer to study a problem thoroughly before deploying resources to solve it instead of being quick to spend money on potential solutions if problems are holding us back
Aggressive competitiveness (AC)	AC1	My firm is very aggressive and intensely competitive rather than making no special effort to take business from the competition

4. Results

4.1 Demographics

Out of the 1,630 samples, 47.7% of the respondents were males and 52.3% were females. The dominant age group was between the ages of 46-50 (29.9%), followed by 51-55 (22%), 41-45 (18%), 61 and older (7.9%), 36-40 (5.2%), 31-35 (0.9%), 26-30 (.4%), while 25 and younger was the lowest (0.1%). Most of the respondents had a university/college degree (83.4%), followed by a master's degree and above (14.8%), and high school/vocational school (1.8%) (Table 2).

Respondents of this study came from different units, such as others (26.6%), bank counter (16%), loans (12.5%), corporate finance (7.7%), foreign exchange (6.9%), personal financial service (3.7%), financial management (3%), financial product planning (1.5%), and economic research (0.9%). As for their position, 201 respondents were above associate manager level (12.4%), and most were below associate manager level (87.6%). The dominant number of years of work was the 21-25 years (37.7%), followed by above 25 years (32.8%), 16-20 years (19.1%), 11-15 years (7.9%), and less than 10 years (2.5%).

Table 2 Demographics of the surveyed samples (n=1,630)

Demographics	Item	n	%
Sex	Male	774	47.4%
	Female	856	52.5%
Age	Less than 25	2	0.1
	26-30	6	0.4
	31-35	14	0.9
	36-40	84	5.2
	41-45	294	18.0
	46-50	487	29.9
	51-55	359	22.0
	56-60	256	15.7
	Above 60	128	7.9
Level of Education	High school/vocational school	30	1.8
	University/college degree	1,360	83.4
	Master's degree and above	240	14.8
Unit	Foreign exchange	141	6.9
	Corporate finance	157	7.7
	Others	542	26.6
	Financial product planning	31	1.5
	Personal financial service	76	3.7
	Loans	255	12.5
	Financial management	62	3.0
	Economic research	18	0.9
	Bank counter	348	16.0
Position	Above associate manager	227	13.9%
	Below associate manager	1,403	86.1%
Years of work	Less than 10	42	2.5
	11-15	129	7.9
	16-20	311	19.1
	21-25	614	37.7
	Above 25	534	32.8
Working hours per day	Less than 5	1	0.1
	5-9	923	56.6
	More than 9	706	43.3

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續 Table 2

Annual income (NT)	500,000 and below	7	0.4
	500,000 – 1,000,000	475	29.1
	1,000,000 – 1,500,000	963	59.1
	1,500,000 and above	185	11.3
Residence	Living with their families	1,584	97.2
	Rented outside	46	2.8
Transportation	Drove a car or motorcycle	995	61.6
	Walking	66	4.0
	Taking public transportation	569	34.9
Social Network	Facebook	285	17.5
	Line	505	31.0
	YouTube	47	2.9
	Others	71	4.3
	Yahoo-Kimo knowledge website	698	42.8
	Wikipedia	24	1.5
Sharing on social network	Sharing	850	52.1
	Not Sharing	780	47.9

Most respondents reported working 5-9 hours per day (56.6%), followed by more than 9 hours (43.3%), and only 1 reported working less than 5 hours per day (0.1%). For annual income, most respondents made NT 1,000,000 - 1,500,000 (59.1%), followed by NT 500,000 - 1,000,000 (29.1%), 1,500,000 and above (11.3%), and 500,000 and below (0.4%) (Table 2).

Almost all respondent were living with their families (97.2%), and only 46 respondents rented outside (2.8%). Most respondents drove a car or motorcycle to the bank (61.6%), followed by taking public transportation (34.4%), and walking (4%). The dominant social network used by the respondents was the Yahoo-Kimo knowledge website (42.8%), followed by Line (31%), Facebook (17.5%), others (4.3%), YouTube (2.9%), and Wikipedia (1.5%). Around 52.1% of respondents reported that they shared experiences on a social network, while the other 47.9% of respondents were not (Table 2).

4.2 Measurement model

The first step of SEM is the assessment of the measurement model. The Cronbach's alphas in Table 3 are all above .7 which implies an acceptable level for reliability. In the next step,

Table 3 Reliability assessment

Variables	No. of items	Cronbach's α	Mean	SD
Autonomy (AU)	8	0.93	3.87	0.91
Innovativeness (IN)	5	0.83	3.56	0.85
Proactiveness (PR)	4	0.78	4.06	0.95
Risk-taking (RT)	4	0.90	3.73	0.84
Aggressive competitiveness (AC)	1	1.00	3.88	1.27

we used average variance extracted (AVE) and composite reliability (CR) for assessing convergent validity. As shown in Table 4, all values are higher than the threshold: 0.5 for AVE and 0.7 for CR (Hair et al., 2017).

Then, we proceeded to test the discriminant validity. Discriminant validity is the extent to which the measures are not a reflection of some other variables, and is indicated by the low correlations between the measure of interest and the measures of other constructs (Hair et al., 2017). As displayed in Table 5, all values in the diagonal (the square roots of AVE values of each constructs) are higher than other elements of the matrix, representing adequate discriminant validity.

4.3 Structural model

The second step of SEM is the assessment of the structural model. We used SmartPLS 3.2.7 to test our hypotheses, H1 - H10. In addition, we checked the model quality by R2 values of the endogenous constructs. Our results from SmartPLS 3.2.7 indicate that all of the R2 values (inside the circles in parentheses) demonstrate the sufficiency of the structural model. Moreover, as drawn in Figure 2, hypotheses H1 through H9 are all accepted due to the t-values which are presented in the parentheses related to each path, and all of the t-values are more than 1.96 ($p < 0.05$). The only insignificant path is H10 with a t-value of less than 1.96 (Table 6).

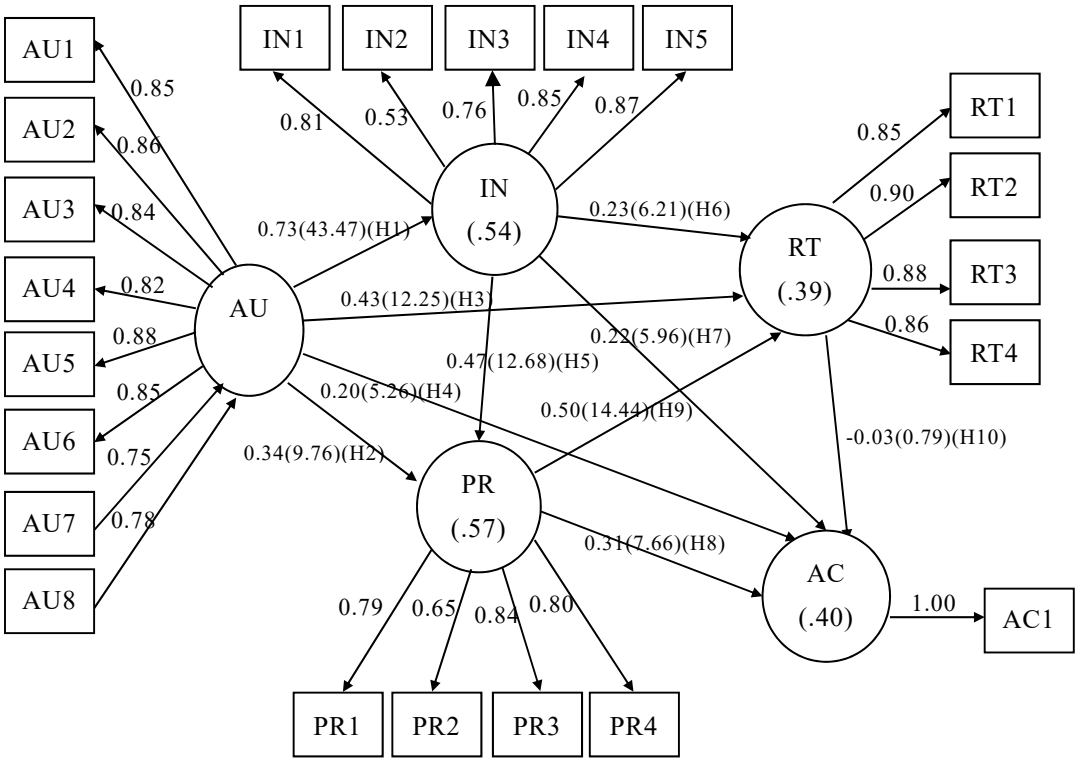

Figure 2 Measurement and structural model results

Table 4 AVE and CR

Variable	AU	IN	RT	PR	AC
AVE	0.69	0.60	0.76	0.60	1.00
CR	0.95	0.88	0.93	0.86	1.00

AU: Autonomy; IN: Innovativeness; RT: Risk-taking; PR: Proactiveness;

AC: Aggressive competitiveness

Table 5 Discriminant validity

Variables	AU	IN	RT	PR	AC
AU	**0.828**				
IN	0.732	**0.773**			
RT	0.683	0.718	**0.774**		
PR	0.600	0.546	0.672	**0.873**	
AC	0.548	0.566	0.580	0.416	**1.000**

Table 6 Hypotheses testing results

Hypotheses	Original Sample	Sample Mean	SD	t	p
AU → IN (H1)	0.73	0.73	0.017	43.47	0.000
AU → PR (H2)	0.34	0.34	0.035	9.76	0.000
AU → RT (H3)	0.43	0.43	0.035	12.25	0.000
AU → AC (H4)	0.20	0.19	0.037	5.26	0.000
IN → PR (H5)	0.47	0.47	0.037	12.68	0.000
IN → RT (H6)	0.23	0.23	0.037	6.21	0.000
IN → AC (H7)	0.22	0.22	0.036	5.96	0.000
PR → AC (H8)	0.31	0.32	0.041	7.66	0.000
PR → RT (H9)	0.50	0.50	0.035	14.44	0.000
RT → AC (H10)	-0.03	-0.03	0.036	0.79	0.432

5. Discussion

The results of the study show that hypotheses H1 through H9 are statistically significant, and all have positive relationships. In the first hypothesis, it was revealed that autonomy (AU) has a significant positive impact on innovativeness (IN) in this national bank in Taiwan. That is to say, the higher the degree of autonomy (AU), the more likely it is that innovativeness (IN) will occur.

Since the other hypotheses of H2 through H9 had the same significant positive impacts as H1, we can conclude for H2 that the higher the degree of autonomy (AU), the better for proactiveness (PR); for H3, the higher the degree of autonomy (AU), the better for risk-taking (RT); for H4, the higher the degree of autonomy (AU), the better for aggressive competitiveness (AC); for H5, the higher the degree of innovativeness (IN), the better for proactiveness (PR); for H6, the higher the degree of innovativeness (IN), the better for risk taking (RT); for H7, the higher the degree of innovativeness (IN), the better for aggressive competitiveness (AC); for H8, the higher the degree of proactiveness (PR), the better for aggressive competitiveness (AC); and for H9, the higher the degree of proactiveness (PR), the better for risk taking (RT).

Construct validity is crucial for EO, because EO can play a significant mediating role and is the main effect in the relationship between factors in this organizational study. This study further identified the relationships among EO constructs, and found that the only negative and nonsignificant relationship pathway is RT → AC (H10). In reality, new ideas,

risk-taking in activities, proactiveness in exploiting opportunities, autonomy, and competitiveness encourage innovation in an organization (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003; Li et al., 2009; Farsi et al., 2013). Therefore, new ideas lead to the implementation of new methods or mechanisms in the organization. Furthermore, the implementation of high-risk decisions and encouragement of risk-taking are the result of searching for new solutions and methods of problem solving in an organization. Likewise, implementing organizational proactiveness in exploiting opportunities in the business environment leads to unique and innovative activities. Implementing autonomy policies in an organization leads to executive mechanisms to support new decisions. Finally, organizational competitiveness requires new ideas and initiatives more than anything else (Farsi et al., 2013).

This study has constructed the EO causal model by PLS-SEM as the reference for future academic practice. In addition, this causal model also can connect with some organizational crucial research issues such as firm performance etc. to form more complex and delicate models.

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