

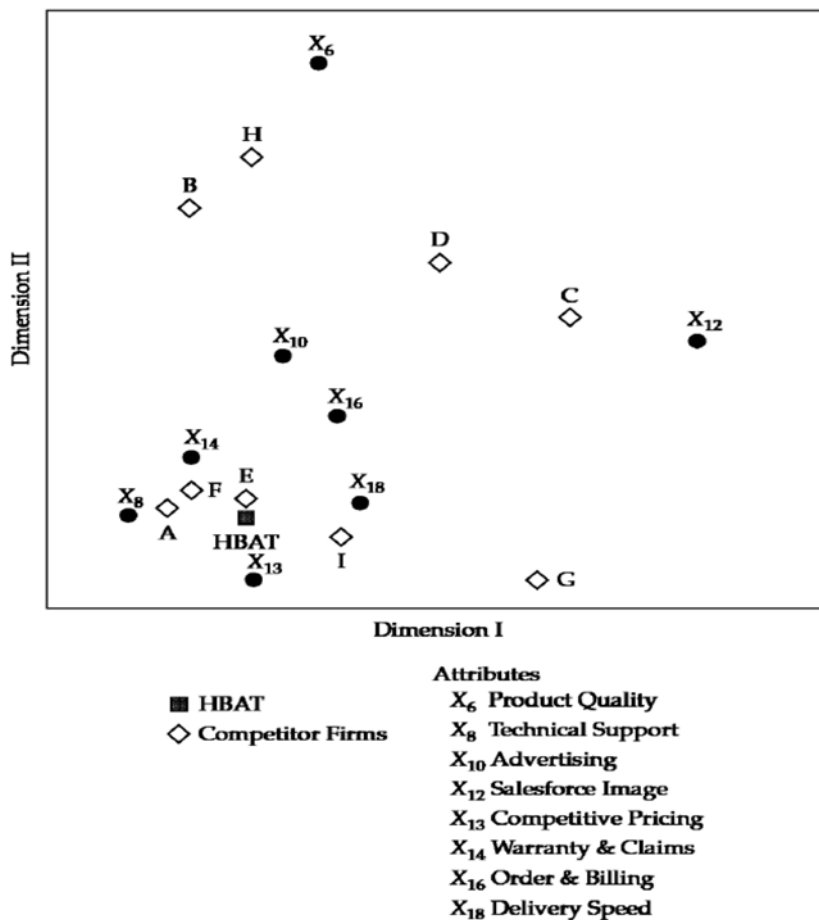
105 博士班資格考

科目：管理計量方法

時間：4 小時 (Closed book)

作答時，請注意各題之比例配分，並清楚標示題號

1. Multidimensional Scaling problem 20%
 - (a) Please draw a Figure to explain what Multidimensional Scaling is,
 - (b) What is the purpose of Multidimensional Scaling?
 - (c) Take an example and list the basic steps for performing a multidimensional scaling analysis.
2. The following Figure 1 is the visual map of Correspondence Analysis:
10%
 - (a) Please give some Interpretation of the results,
 - (b) What is HBAT market position?



3. The following is an estimated structural equation model of job search: 20%

(a) Please write out the equation of job search, and list the equation of job satisfaction

(b) List the direct path and all indirect paths for job satisfaction, and calculate their coefficients, respectively

4. What is the primary objective of cluster analysis? 20%

For obtaining objective of cluster analysis, Please answer the following questions:

(a) How do you measure similarity?

(b) How do you form clusters?

(c) How to determine the number of clusters?



5. Please read the attached partial journal paper (Title: A model of emotion and computer abuse) and answer questions. 30%

(a) Please explain the results of structural model in detailed (included hypothesis supported or unsupported)

(b) Does the research model have explanatory power? Please write out your viewpoint.

(c) Utilize you have learned to explain the results of Table 3

Journal paper: A model of emotion and computer abuse

Source: Information & Management, Volume 53, Issue 1, January 2016, Pages 91-108

Authors: Jongwoo (Jonathan) Kim, Eun Hee (Eunice) Park, Richard L. Baskerville

ABSTRACT

Internal computer abuse has received considerable research attention as a significant source of IS security incidents in organizations. We examine the effects of both organizational and individual factors on individuals' computer abuse intent. A theoretical model is developed based on two theories: abuse opportunity structure and emotion process. We empirically tested the model with 205 working professionals. We found that the abuse opportunity structure in organizations affects an individual's goal conduciveness, which in turn affects their abuse-positive affect. We also found that morality affects the abuse-positive affect, which in turn mediates the relationship between morality and abuse intent.

5.2.1. Measurement model assessment

Our research model includes both formative and reflective constructs. Construct validity should be assessed differently for these two types of constructs, as we cannot assume that the formative indicators will co-vary. Therefore, traditional approaches for assessing construct reliability cannot be meaningfully applied.

Morality was treated as a formative construct. Multicollinearity was checked for, as it is not desirable for a formative construct. Multicollinearity can increase standard errors, which lead to an adverse effect on measurement reliability. The variance inflation factor (VIF) value should not exceed 3.3, which is the recommended threshold for multicollinearity [16,29]. All VIF values shown in Table 2 are less than 1.815, indicating that a certain unique portion of variance is explained by each formative item and alleviating multicollinearity concerns.

Table 2
Variance inflation factor for formative construct.

Construct	Items	Variance inflation factor
Morality	Morality1	1.245
	Morality2	1.585
	Morality3	1.534
	Morality4	1.815
	Morality5	1.705
	Morality6	1.730
	Morality7	1.425
	Morality8	1.549
	Morality9	1.392
	Morality10	1.490

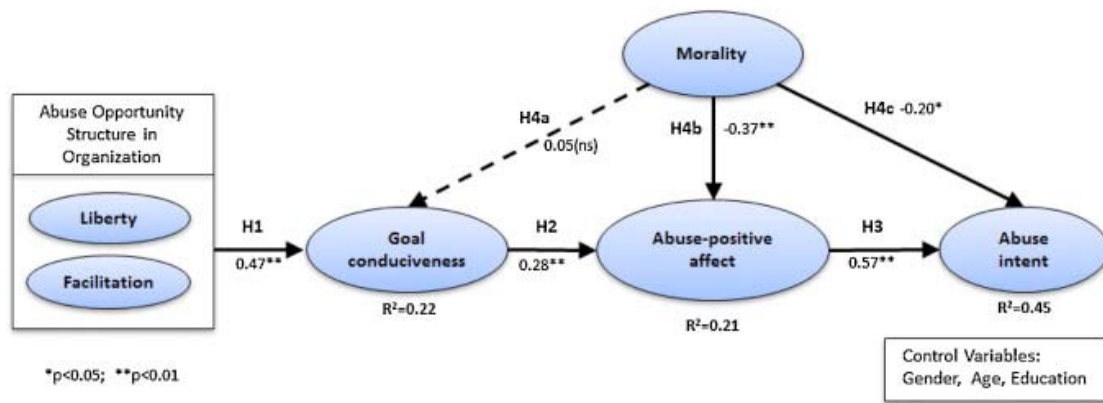


Fig. 3. Results of PLS analysis.

Table 3
Item loadings and construct reliability.

Construct	Item	Standardized loading	Cronbach's alpha	Composite reliability	Average variance extracted
Goal conduciveness	Conduc1	.930	.954	.967	.878
	Conduc2	.943			
	Conduc3	.947			
	Conduc4	.929			
Abuse-positive affect	PosA1	.842	.965	.972	.852
	PosA2	.931			
	PosA3	.916			
	PosA4	.935			
	PosA5	.960			
	PosA6	.950			
Abuse intent	Abuse1	.961	.972	.981	.947
	Abuse2	.979			
	Abuse3	.980			

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