

## Structural analysis of the relationship between optometric practices and knowledge sharing intention

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**Abstract:** This paper aims to reveal the multidimensionality of knowledge-sharing intentions and its perception by employees in optometry practices. Data were collected from 187 optometry employees in Taiwan through a survey. The collected data were used to examine the proposed model. Empirical results show that individual autonomy, organizational collaboration, professional requirement, knowledge-sharing attitude, and perceived behavioral control exhibit direct and indirect positive relationships with knowledge-sharing intention. These factors are vital for supervisors in the optometric industry to maintain inter-organizational competitive advantage. Strengthening the professional knowledge of optometry employees solves the dilemma of knowledge-sharing intention in optometric practices. Furthermore, this study analyzed the intrinsic beliefs of optometry employees to provide insights for top management in formulating management strategies.

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**Keywords:** individual autonomy, knowledge sharing intention, optometry practices, organizational collaboration, perceived behavioral control, professional require

### 1. Introduction

Over the past decades, knowledge management has been considered a critical factor in improving the competitive capability of organizations and achieving excellent business performance across barriers. The purpose of knowledge management is to sustain recognition and ensure the success and vitality of the entire organization. Prior literatures have documented that effective facilitation of employee knowledge sharing can lead to improvements in the management of organizational knowledge [1]. Exploring people's perceptions are important to organizations because of the diversity of individual views. Optometric practice lacks systematic empirical findings regarding the preconception of personal beliefs and its relationship with employees' knowledge-sharing intentions in the optometric industry. This study examines the differences in perception of work-related values in the optometric industry of Taiwan.

### 2. Literature review and hypothesis

As [4] posits, understanding the individual extrinsic and intrinsic impact of factors associated with personal behavioral intentions is important. Individual autonomy refers to one's multidimensional awareness. When a top manager adopts a low monitoring attitude within an organization, high individual autonomy will be promoted and business performance will suffer. Hence, individual autonomy not only represents personal beliefs and characteristics but also fosters attitude formation. Attitude constitutes the main foundation of the social psychology framework. Attitude change is related to

other concepts, objects, or goals and estimates the aspect of interrelated beliefs. Thus, research infers that the knowledge-sharing attitude of optometry employees is influenced by individual autonomy. Organizational collaboration is a critical factor and the norm for organizations when facing a turbulent environment and competing for superiority. Organizations face business diversity and uncertain circumstances; thus, organizational collaboration enables department managers to create a friendly work environment, which leads to a successful business. Organizational collaboration is defined as an activity in which the interflow of information from organizations, including employee knowledge and resource sharing, enhances the capacity of workers for mutual reciprocity and the sharing of risk, reward, and responsibility [3].

Attention has recently been devoted to fostering organizational collaboration to promote employees' individual and organizational goals and translate these goals to personal behavioral awareness. The synthesis of personal perception and professional efficacy is expected to leverage the synergy of organizational collaboration to contribute to the industry. Prior studies mentioned that professional requirements for employees directly influence perceived behavioral control regarding knowledge-sharing intention. The manner in which employees engage work demand (i.e., product or service) should be made an indispensable capacity in organizations [2]. Studies confirm that professional requirements always play important roles in influencing the ratio of success of perceived behavioral control to knowledge-sharing intention.

This study integrates three antecedents and the theory of planned behavior as bases to examine the knowledge-sharing intentions of optometry employees [5]. Based on this literature review, a research model is proposed (Figure 1).

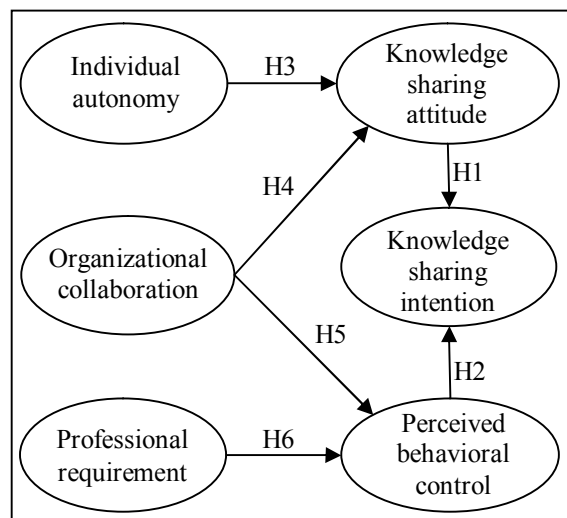


Figure 1. Research model

### 3. Methodology

This section describes the sample data obtained from optometry industry employees and verifies the knowledge-sharing intention of these employees.

#### 3.1 Sample and collection

This study gathered data from a random sample of 187 optometry employees in the optometric industry of Taiwan. The survey data used demographic information and related constructs as measurement items in the questionnaires. A pretest was administered by four optometry experts to determine the validity of the contexts and semantics of the research questionnaires. A pilot study was conducted in 10 optometry industries with 20 respondents. Thereafter, formal questionnaires with cover letters were distributed to 460 optometry employees in Taiwan. Of the 221 usable questionnaires returned, 34 were not completed and had to be discarded. The remaining 187 questionnaires were analyzed. Twenty measurement items were derived from existing literatures and revised for the survey. Responses to the measurement items were made on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Demographic details based on the valid questionnaires are presented in Table 1.

Table 1. Sample description (n =187)

| Measure       | Items              | Frequency | Percentage (%) |
|---------------|--------------------|-----------|----------------|
| Gender        | Male               | 124       | 66.31%         |
|               | Female             | 63        | 33.69%         |
| Age           | 21~29              | 22        | 11.76%         |
|               | 30~39              | 46        | 24.60%         |
|               | 40~49              | 76        | 40.64%         |
|               | 50~59              | 35        | 18.72%         |
|               | 59 (or above)      | 8         | 4.28%          |
| Qualification | Specialty school   | 95        | 50.80%         |
|               | Bachelor           | 85        | 45.45%         |
|               | Master             | 7         | 3.74%          |
| Department    | Optical shop       | 137       | 73.26%         |
|               | Eye clinic         | 28        | 14.97%         |
|               | Hospital           | 16        | 8.56%          |
|               | factory            | 6         | 3.21%          |
| Job position  | Employee           | 158       | 84.49%         |
|               | Team leader        | 18        | 9.63%          |
|               | Manager            | 11        | 5.88%          |
| Experience    | Under 5 years      | 30        | 14.44%         |
|               | 6~9 years          | 25        | 16.58%         |
|               | 10~14 years        | 80        | 42.25%         |
|               | 15~20 years        | 50        | 18.18%         |
|               | 20years (or above) | 13        | 8.56%          |

### 3.2 Statistical analysis

This study estimated the sample and analysis variables using SPSS 12.0 and LISREL 8.52. Explanatory and confirmatory factor analyses were conducted. Thereafter, structure path modeling was performed to determine the fitness of the model [6].

## 4. Results

### 4.1 Hypothesis testing

The results of the LISREL analysis are illustrated in Table 1 and Figure 2. The 20 measurement items are all above standard according to the exploratory factor analysis (factor loading > 0.786), reliability analysis (alpha value > 0.842), and confirmatory factor analysis (model fit index > 0.800). The individual autonomy variable has a significant negative relationship with knowledge-sharing attitude (H3) among optometry employees. Individual autonomy in the optometry industry does not motivate optometry employees' to share knowledge to co-workers. The dearth of individual autonomy among employees decreases the quality of management. Accordingly, optometry supervisors should strive to create a friendly work environment and relax routine management control to foster individual autonomy and strengthen knowledge sharing. The remaining hypotheses (H1, H2, H4, H5, and H6) show significant positive relationships with dependent variables. The findings imply that organizational collaboration, professional requirement, and perceived behavioral control provide effective explanatory power.

Table 2. Reliability and validity analysis

| Construct                    | EFA |       | RA    | CFA   |
|------------------------------|-----|-------|-------|---|
| Individual autonomy          | IA3 | 0.898 | 0.932 | P value=0.137<br>Chi-square=155.230<br>GFI=0.919<br>AGFI=0.888<br>RMSEA=0.027 |
|                              | IA4 | 0.889 |       |   |
|                              | IA2 | 0.880 |       |   |
| Organizational collaboration | OI2 | 0.849 | 0.930 |   |
|                              | OI1 | 0.848 |       |   |
|                              | OI4 | 0.826 |       |   |
|                              | OI3 | 0.826 |       |   |
| Professional requirement     | PR4 | 0.859 | 0.920 |   |
|                              | PR3 | 0.849 |       |   |
|                              | PR2 | 0.843 |       |   |
|                              | PR1 | 0.819 |       |   |
| Perceived behavioral control | PB2 | 0.802 | 0.842 |   |
|                              | PB3 | 0.800 |       |   |
|                              | PB1 | 0.786 |       |   |
| Knowledge sharing attitude   | KT2 | 0.816 | 0.942 |   |
|                              | KT4 | 0.810 |       |   |
|                              | KT1 | 0.776 |       |   |
| Knowledge sharing intention  | KS2 | 0.882 | 0.909 |   |
|                              | KS3 | 0.846 |       |   |
|                              | KS1 | 0.798 |       |   |

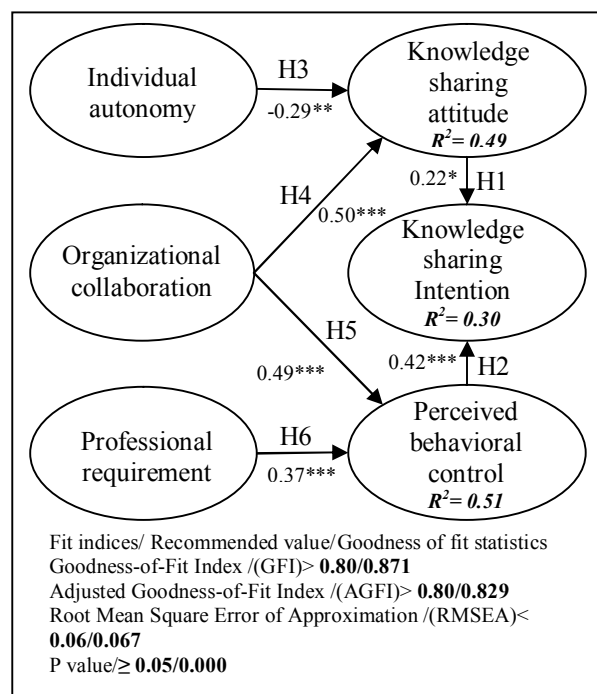


Figure 2. Results of structural model

## 5. Conclusion and implication

This study combined personal extrinsic and intrinsic factors with the theory of perceived behavior to explore the knowledge-sharing intentions of optometry employees in the optometric industry of Taiwan. Individual autonomy has a direct impact on knowledge-sharing attitude. Therefore, supervisors in the optometry industry should consider developing self-awareness among employees as a key element in fostering knowledge-sharing attitudes and knowledge-sharing intentions. The abovementioned

factors are able to predict the knowledge-sharing intention of optometry employees. Managers in the optometry industry should adopt these factors to improve the formulation and implementation of strategies in accordance with the goal of rewarding knowledge-sharing intention among optometry employees.

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