Knowledge sharing in the retail food protection program: perceived importance and actual implementation

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Abstract: This study empirically examines the critical success factors affecting the success of knowledge sharing in food inspection agencies. The study population included health inspectors from all 58 counties of California, USA, and the total number of responses was 119. The degree of importance for 21 knowledge sharing attributes ranged from 3.89 to 4.73 with a group mean rating of 4.28 (5 = very important, 1 = not important) while the degree of implementation of knowledge sharing ranged from 2.72 to 3.75 with a group mean rating of 3.20 (5 = extensively implemented, 1 = not implemented). There were significant differences between the degree of importance and the degree of implementation for all attributes. The five factors were labelled as systematic support for knowledge sharing, knowledge sharing framework, knowledge sharing training, information system capabilities and administrative culture on knowledge sharing. The 'knowledge sharing training' was positively associated with the success of knowledge sharing.

Keywords: food protection program; health inspectors; implementation; importance; knowledge management; knowledge sharing.

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1 Introduction

Food safety is an important public health priority. The Center for Disease Control and Prevention (CDC) estimates that "Each year, one in six Americans (or 48 million people) get sick, 128,000 are hospitalised and 3,000 die of foodborne diseases. Reducing foodborne illness by just 10% would keep 5 million Americans from getting sick each year" (Center for Disease Control and Prevention, 2014). The state and local agencies enforce the retail food protection program to promote food safety principles and to minimise the incidence of foodborne illness (Food and Drug Administration, 2014a). A successful implementation of the retail food protection program will require specialists, aka 'health inspectors,' to be updated and trained with current local and state health codes, FDA food recalls and commodity recalls, news of foodborne illness outbreaks and new laws.

Knowledge sharing might be considered as strategies and tools that could help the retail food protection programs deal effectively with their reality (Choi and Wie, 2010). There is a growing need for effective sharing and management of knowledge among health inspectors. As the retail food protection programs are challenged to provide more effective services with fewer resources, they will be required to leverage their resources very effectively (interview with Kelly McCoy, Sacramento County Environmental Management Department, 14th April 2010). Knowledge sharing in knowledge management is a concept in which an organisation consciously and comprehensively

gathers, organises, shares and analyses its knowledge in terms of resources, documents, and people skills (Paulin and Suneson, 2012).

Without sharing accurate knowledge in a timely manner, it would be very challenging and difficult to protect the public's health. Understanding how agencies adopt and deploy knowledge would offer insights into the capacity of county government and its ability to cope with these challenges.

The objective of this study is to develop and empirically examine the critical success factors affecting the success of knowledge sharing in food inspection agencies. These critical success factors are useful for structuring environmental analysis because the analyses of these factors provide an important meaning to knowledge sharing through the identification of core processes that are critical to successful knowledge sharing implementation (Chong and Choi, 2005; Digman, 1999).

2 Literature review

2.1 Knowledge sharing in knowledge management

Numerous studies have identified several key factors for the success of knowledge sharing in knowledge management (KM). The findings by leading KM researchers are major sources that can be used to identify the success factors of knowledge sharing (Choi and Wie, 2010; Chong and Choi, 2005; Davenport, De Long and Beers, 1998; Hariharan, 2005; Jennex and Olfman, 2005; Wong, 2005). The following discusses the critical success factors and their influences on successful knowledge sharing implementation for this research.

First, leadership commitment to the knowledge sharing process is essential. Without the support of top-level managers, the success of knowledge sharing activities is cumbersome. Only strong leadership could provide the necessary direction, where an organisation will need to implement and effectively deploy a knowledge sharing strategy. Thus, knowledge sharing leadership must provide the proper environment to motivate its workers to enable the creation and sharing of knowledge (Civi, 2000; Kalling, 2003; Singh, 2008).

Second, knowledge can be created individually, in groups and on an organisational level. Specifically, reliable, useful, up-to-date and timely knowledge can be captured and created by sharing knowledge with other members of work groups, suppliers and customers. Thus, having a well-established knowledge sharing framework is important in order to implement successful knowledge sharing process (Pandey and Dutta, 2013; Wenger and Snyder, 2000).

Third, a number of organisations have become or are striving to become learning organisations. Failure in effective work is caused due to insufficient training to support knowledge sharing principles. That is, if an organisation wants to become a truly knowledge-based organisation, it must start with quality training. Training provides health inspectors the skills and information to fulfil their responsibilities (Hwang, 2003; Mondy, Noe and Premeaux, 2002).

Fourth, effective knowledge sharing is unthinkable without information systems in the digital age. An effective and competent information system is necessary for the organisation to implement the knowledge sharing process because information systems can provide an edge in harvesting knowledge. That is also the distinct difference between

organisational learning and KM. KM utilises information systems as enabling tools while organisational learning views information systems as technical tools. To develop an effective knowledge sharing program, information systems must be reliable, flexible, accessible, accurate and compatible with other platforms (Davenport and Grover, 2001; Davenport and Prusak, 1998).

Fifth, there is a general agreement that a knowledge-friendly culture must be present or nurtured in order for the success of knowledge sharing implementation. Culture is a set of beliefs, which provides an identity for the organisation, which in turn defines how the organisation runs day to day (Schermerhorn et al., 1991). Creating and sharing knowledge are intangible activities that cannot be forced. To create a knowledge-friendly culture, it is important to consider the cultural environment of an organisation before implementing knowledge sharing (Al-Alawi, Al-Marzooqi and Mohammed, 2007; Hanan and Stemke, 2014).

2.2 Retail Food Protection Program

In 2010, the FDA retail food safety initiative, a part of FDA's prevention-based, farm-to-table food safety strategy, was announced to reduce foodborne illness and acknowledged key partnerships with regulators to improve food safety at the retail level (Food and Drug Administration, 2014b). More than 3,000 state, local and tribal agencies have a primary responsibility to regulate the retail food and foodservice industries in the USA. These agencies are responsible for the overseeing of over 1 million food establishments including restaurants, grocery lists, vending machines and institutional food services (Food and Drug Administration, 2014a). To promote the application of food safety principles, FDA issues a food code to assist food control jurisdictions at all levels of government. The FDA food code is used as a model to develop or update local, state, tribal, and federal regulators' own food safety rules.

In reality, state retail and food service codes and regulations (Food and Drug Administration, 2014a) widely differ from one state or locality to another because the FDA model food codes are recommendations for food safety regulations and are not to adopt (National Restaurant Association Education Foundation, 2012). The enforcement of these codes requires numerous responsibilities of regulatory agencies, which include permitting inspection of retail food business, providing food safety education and training, investigating complaints and illnesses, and investigation of suspected cases of foodborne illness.

3 Research design and methodology

The study population included health inspectors from all the 58 counties of California. Fifty-eight directors in the County Environmental Management Department were contacted and nine directors voluntarily agreed to distribute the online survey to their colleagues. Therefore, the exact number of samples invited was not able to be identified. A consent form was presented to the respondent by clicking the 'begin' button. Respondents not wishing to consent were able to simply navigate away from the page. The total number of responses was 119. However, four questionnaires did not contribute

adequate information and thus were omitted from the study, leaving 115 usable responses.

A questionnaire was modified from the researcher's previous study (Choi and Wie, 2010) and approved by the Committee for the Protection of Human Subjects. A pilot study by health inspectors was conducted to examine the validity and reliability of questions. The questionnaires consisted of three sections:

1 overall perception of knowledge sharing in general

2 attributes affecting knowledge sharing in food protection programs and the level of actual implementation of those attributes

3 respondents' demographic and agency information.

Results were summarised using descriptive statistics, factor analysis and multivariate analysis with statistical package for social science (Version 21.0, SPSS Inc., Chicago, IL).

Based on the factor analysis, five measurement factors for the degree of importance were proposed to test the success of knowledge sharing. The research hypotheses were proposed as follows:

H1: A high level of knowledge sharing leadership is positively associated with the success of knowledge sharing.

H2: A high level of knowledge sharing framework is positively associated with the success of knowledge sharing.

H3: A high level of knowledge sharing training is positively associated with the success of knowledge sharing.

H4: A high degree of reliable and flexible information systems' capability is positively associated with the success of knowledge sharing.

H5: A high level of knowledge sharing culture is positively associated with the success of knowledge sharing.

4 Results and discussion

4.1 Demographic characteristics of respondents

Demographic information is presented in Table 1. The majority of respondents were women (61%) and the age brackets of respondents were fairly distributed among 41–50 (35.5%), 31–40 (28.0%), and >50 (26.2%). The number of years working in this field was 14.1 years on average. About half of the respondents (46.5%) worked at the Southern California region while 26.3 and 27.2% worked at Northern and Central California, respectively. The knowledge sharing practices that contributed most were the work email system (91.3%), employee meetings/training (77.4%) and information from coworkers (44.3%).

Table 1 Demographic information of respondents[a]

Characteristics		*Frequency n*	*Percentage*
Gender	Female	67	61.5
	Male	42	38.5
Age	20–30	11	10.3
	31–40	30	28.0
	41–50	38	35.5
	>50	28	26.2
Region	Northern California	30	26.3
	Central California	31	27.2
	Southern California	53	46.5
Years in field	1–5	19	17.9
	6–10	27	25.5
	11–15	20	18.9
	15–20	12	11.3
	21–25	17	16.0
	>25	11	10.4
Knowledge sharing practices[b]	Work email system	105	91.3
	Employee meetings/training	89	77.4
	Information from coworkers	51	44.3
	Internet homepage	30	26.1
	Workplace bulletin board	27	23.5
	Workplace mailbox	20	17.4
	Others[c]	5	4.3

Notes: [a]$N = 115$, [b]Total number and percent value do not equal N and 100, respectively, as multiple responses were given, [c]Shared drive including reports, rumours, professional listserv, professional magazine and journal, internet access, etc.

4.2 Overall perception of knowledge sharing

The respondents were asked to rate the degree of their agreement with three statements about knowledge sharing on a five-point Likert scale (5 = strongly agree, 1 = strongly disagree). Perception statements about knowledge sharing and its results are shown in Table 2. About 46% of all respondents strongly agreed that "knowledge sharing can improve their organisations' overall performance and sustainable competitiveness," with mean rating of 4.38. This perceived agreement rate was used as the dependent variable for the regression analyses in Table 3. The least agreed perception agreement was "I believe the knowledge sharing program fits their organisation and the industry ($m = 3.88$)."

Table 2 Overall perception about knowledge sharing by health inspectors[a]

Perception statement	*Percentage*					*Mean ± SD*
	Strongly agree	*Agree*	*Undecided*	*Disagree*	*Strongly disagree*	
I believe the knowledge sharing program fits our organisation and the industry.	24.37	43.7	16.81	8.4	0.84	3.88 ± 0.931
The knowledge sharing program can contribute to our organisation's products or services competitiveness.	30.25	49.58	13.45	0.84	0.84	4.15 ± 0.754
The knowledge sharing can improve our organisation's overall performance and sustainable competitiveness.	46.22	40.34	5.04	1.68	0.84	4.38 ± 0.749

Notes: [a]$N = 115$, [b]5 = strongly agree; 1 = strongly disagree.

Table 3 Multiple regression analyses of the five factors with perceived knowledge sharing

Factors regressed on respondents' perception[a]	*Unstandardised coefficients*		*Standardised coefficients*	*t-value*	*Significance*
	B	*Standard error*	*β*		
(Constant)	4.102	0.320		12.809	0.000
Systematic support for knowledge sharing	0.376	0.196	0.456	1.916	0.059
Knowledge sharing framework	0.293	0.173	0.366	1.693	0.094
Knowledge sharing training	0.451	0.171	0.523	2.639*	0.010
Information system capability	0.186	0.179	0.226	1.038	0.302
Administrative culture on knowledge sharing	0.320	0.189	0.404	1.693	0.094

Notes: $R^2 = 0.143$, adjusted $R^2 = 0.091$, $F = 2.733$ ($p = 0.025$), *$p \leq 0.01$, [a]dependent variable: the knowledge sharing can improve our organisation's overall performance and sustainable competitiveness ($m = 4.38$) (Table 2).

4.3 Perception of degree of importance and implementation on knowledge sharing attributes

Table 4 illustrates the mean scores of the degree of importance and the degree of implementation of 21 attributes concerning knowledge sharing. Paired *t*-test was used to compare the differences between perceived importance and actual knowledge sharing implementation in food protection programs.

Table 4 Differences of importance and implementation of knowledge sharing attribute

Attributes	*Importance*[a]		*Implementation*[b]		*Differences*	
	Mean[c]	*SD*	*Mean*	*SD*	*Mean*	*t*
Sharing knowledge with a variety of personnel, such as new food safety regulations	4.73	0.551	3.75	0.982	0.991	10.130*
Top management leadership and commitment towards knowledge sharing and its utilisation	4.58	0.664	3.33	1.118	1.250	10.596*
Effectiveness, efficiency and user friendliness of information systems	4.50	0.720	3.28	1.056	1.230	11.151*
Providing all employees with adequate information of knowledge sharing related principles through training	4.47	0.682	3.45	1.064	1.036	9.497*
Top management encouragement toward formal/informal communication	4.46	0.670	3.21	1.168	1.234	10.463*
Encouraging employees to participate in internal and external new learning opportunities such as conferences, training seminar, university courses, etc.	4.44	0.706	3.38	1.152	1.062	9.148*
Access to the majority of knowledge within my organisation	4.38	0.786	3.35	1.105	1.054	9.650*
Adequate budgeting or funding to support knowledge management projects	4.32	0.909	3.18	1.128	1.116	10.044*
Gaining knowledge about customers, own competencies and capabilities	4.31	0.825	3.33	1.060	.991	10.305*
Current corporate hardware and operating systems rules and standards to support future computer platform compatibility	4.29	0.821	3.04	1.162	1.235	9.721*
Promote ongoing employee contributions to the knowledge sharing system	4.29	0.743	3.12	1.102	1.171	10.437*
Documentation of the most operating rules, policies, and procedures for knowledge sharing implementation processes	4.27	0.779	3.28	1.145	.982	8.849*
Data and information sharing among different computer software applications	4.26	0.821	3.08	1.050	1.196	10.832*
A formal system that allows for contribution of every employee's opinions or suggestions	4.23	0.765	3.03	1.063	1.184	10.274*
Supporting team-based approaches to problem solving	4.21	0.893	3.19	1.162	1.035	8.409*
Reformulation of any rules (i.e., personnel policies) that obstruct the implementation of knowledge sharing	4.15	0.830	3.02	1.131	1.144	9.649*
Actively encourage employee participation in decision processes	4.14	0.826	2.97	1.153	1.168	10.528*

Notes: *$p < 0.001$, [a]5 = very important, 1 = not important, [b]5 = extensively implemented, 1 = not implemented, [c]$N = 115$.

Table 4 Differences of importance and implementation of knowledge sharing attribute (continued)

Attributes	*Importance*[a]		*Implementation*[b]		*Differences*	
	Mean[c]	*SD*	*Mean*	*SD*	*Mean*	*t*
Encouraging knowledge creating teams such as knowledge task force, the future group, or learning group	4.10	0.890	2.88	1.250	1.214	9.852*
The complexity and limitation of current computer software applications to develop interactive knowledge sharing applications	4.07	0.908	2.97	1.082	1.114	8.712*
Encouraging employees to benchmark other organisations' best practices of knowledge sharing	3.97	0.995	2.72	1.240	1.276	10.712*
Supporting utilisation of a knowledge-related measurement mechanism	3.89	0.913	2.99	1.176	.898	7.709*
Average	4.28		3.20			

Notes: *$p < 0.001$, [a]5 = very important, 1 = not important, [b]5 = extensively implemented, 1 = not implemented, [c]$N = 115$.

4.3.1 Degree of perceived importance

The degree of importance for KS attributes ranged from 3.89 to 4.73 with a group mean rating of 4.28 (5 = very important, 1 = not important). The highest rated attributes of KS was "sharing knowledge with other members of a work group (m = 4.73)" followed by "top management leadership and commitment (m = 4.58)" and "effectiveness, efficiency and user friendliness of information system (m = 4.50)". The lowest rated attribute was "supporting utilisation of a knowledge-related measurement mechanism (m = 3.89)" and "encouraging employees to benchmark other organisations' best practices of knowledge sharing (m = 3.97)"; however, these still lie around important (4 = important). All 21 attributes scored higher than 3.89 out of a five-point Likert-type scale; that is, all attributes were perceived as important or very important for knowledge sharing.

4.3.2 Degree of actual implementation

The degree of implementation of KS for 21 attributes ranged from 2.72 to 3.75 with a group mean rating of 3.20 (5 = extensively implemented, 1 = not implemented). The attribute that was mostly implemented was "sharing knowledge with a variety of personnel (m = 3.75)", which was the same attribute perceived as the most important for KS. "providing all employees with adequate information of knowledge sharing related principles through training (m = 3.45)" and "encouraging employees to participate in internal and external new learning opportunities (m = 3.38)" were followed.

The least implemented attributes were "encouraging employees to benchmark other organisations' best practices of knowledge sharing (m = 2.72)". Other attributes that were less implemented were "actively encourage employee participation in decision processes" and "the complexity and limitation of current computer software applications" both with mean rating of 2.97. The attribute "encouraging employees to benchmark other organisations' best practices of knowledge sharing" not only received lower perception

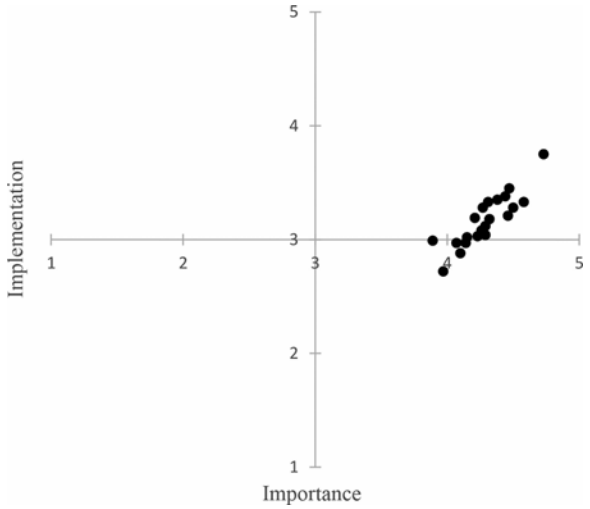
towards the degree of importance but was also implemented the least frequently. All 21 attributes ranged from 2.72 to 3.75; this means that attributes were implemented moderately.

4.3.3. Comparison of the degree of importance and implementation

Mean differences and results of paired *t*-test are shown in Table 4. The most differences in means between the degree of importance and the degree of actual implementation were shown in attributes related to knowledge sharing system or structure: "encouraging knowledge by creating teams such as knowledge task force, the future group or learning group (M_d = 1.25)," "encouraging employees to benchmark other organisations' best practices of knowledge sharing (M_d = 1.24)" and "supporting utilisation of a knowledge-related measurement mechanism (M_d = 1.18)." These attributes were relatively perceived as less important and were thus less implemented. Furthermore, these are not even implemented to the extent that they were perceived as important.

There were significant differences between the degree of importance and the degree of implementation for all attributes ($p < 0.001$). The perceived degree of importance was much higher than the degree of implementation indicating the extent to which KM has actually been implemented in respondents' organisations. This relationship is illustrated as a scatter graph in Figure 1. The scatter plot shows the relationship between the degree of importance and actual implementation measured on the same respondents. The degree of importance ranged from 3.89 to 4.73 on a five-point Likert scale while the degree of actual implementation ranged from 2.99 to 3.75. Two variables are positively associated with higher average values of the degree of importance and tend to accompany higher values of the degree of implementation.

Figure 1 Scatter graph for the degree of importance and implementation



4.4 Importance factors of knowledge sharing

Extraction of principal factors with varimax rotation was performed on 21 attributes measuring the degree of importance for the sample of 115 health inspectors. Principal

components extraction was used before principal factors extraction to estimate the number of factors, presence of outliers, absence of multicollinearity and factorability of the correlation matrices. With α = 0.001 cut-off level, no respondents produced scores that identified them as outliers. The results of factor analysis for importance are shown in Table 5. The five factors with eigenvalues of 1.00 or greater, with 67.4% of the variance explained, included all 21 attributes for importance. The five factors were labelled as systematic support for knowledge sharing, knowledge sharing framework, knowledge sharing training, information system capabilities and administrative culture on knowledge sharing.

Table 5 Factor analysis of degree of importance on knowledge sharing attributes

Knowledge sharing factors	*Factor loading*	*Eigen values*	*Variance explained (%)*	*Communalities*
Factor 1: Knowledge sharing leadership (N = 6) (α = 0.85)				
Allowing employee's opinions or suggestions	0.742			0.723
Supporting team-based approach	0.723			0.777
Formation of KS task group	0.716			0.748
Top management leadership and commitment	0.593	8.955	42.6	0.687
Benchmarking other organisations' KS practices	0.544			0.644
Documentation for policies and procedures	0.538			0.558
Factor 2: Knowledge sharing framework (N = 4) (α = 0.79)				
Utilisation of measurement system	0.750			0.674
Complexity and limitations of Software	0.677			0.625
Computer platform compatibility	0.642	1.576	7.5	0.691
Employee participation in decision processes	0.550			0.670
Factor 3: Knowledge sharing training (N = 4) (α = 0.82)				
Employee training	0.720			0.700
Sharing knowledge with others	0.662	1.335	6.3	0.585
Various learning opportunities	0.594			0.702
Ongoing employees' contribution	0.562			0.754
Factor 4: Information system capability (N = 3) (α = 0.79)				
IS effectiveness	0.767	1.206	5.7	0.746
Accessibility of IS	0.757			0.721
Data and information sharing	0.630			0.650

Table 5 Factor analysis of degree of importance on knowledge sharing attributes (continued)

Knowledge sharing factors	*Factor loading*	*Eigen values*	*Variance explained (%)*	*Communalities*
Factor 5: Knowledge sharing culture ($N = 4$) ($\alpha = 0.72$)				
Formal/informal communication	0.736			0.713
Adequate budget or fund	0.730			0.641
Reformulation of obstructive rules	0.577	1.129	5.3	0.684
Gaining knowledge (i.e., customers, competencies and capabilities)	0.460			0.506
Total variance explained			67.4%	

4.5 Relationships of the five factors with perception of knowledge sharing

The multiple regression results of the relationship between the five importance factors and the perception of knowledge sharing are shown in Table 3. The table shows the standardised coefficient (β), significance level and adjusted squared multiple correlation coefficient (adjusted R^2). Each success factor by success factor analysis was used as an independent variable to measure the success of knowledge sharing. The statement, the knowledge sharing can improve our organisation's overall performance and sustainable competitiveness," which represents perceived importance of knowledge sharing, was used for the measurement of the dependent variable for the success of knowledge sharing implementation. The 'knowledge sharing training' was positively associated with the success of knowledge sharing ($p \leq 0.01$), while the other factors including knowledge sharing leadership, knowledge sharing framework, information system capabilities and knowledge sharing culture were not positively associated with the success of knowledge sharing. Therefore, H3 was accepted while the remaining H1, H2, H4, and H5 were rejected. The findings of the analysis indicate that knowledge sharing training is critical to knowledge sharing success.

5 Conclusion

Throughout this study, a number of managerial concepts and ideas have been explained, tested, and analysed. Many academicians and practitioners have suggested numerous managerial practices and ideas for successful knowledge sharing. Management should not follow fashion or a stream of superficial activities. It should focus on innovations and organisation-wide improvements, regardless of organisational characteristics or type.

The overall respondents' attitudes towards knowledge sharing were examined. The results indicate that the respondents seemed aware of the importance of knowledge sharing in terms of their organisation's current and future performance. Most respondents view their organisation's operation as knowledge intensive. Also, most respondents seem to be thinking of knowledge sharing as a way to promote more effective management.

Sharing knowledge with peers and a variety of personal was considered to be the most critical success factor for perceived importance and implementation. Since there

have been dramatic changes of food inspection regulations in recent years, it seems that inspectors strongly feel that sharing of knowledge is a way to keep up with fast changing work environments. On the other hand, the possibility of a biased perception of knowledge sharing in KM should be considered. The paired *t*-test compared the degree of importance with the degree of implementation. According to the comparison, the most differences in means between the degree of importance and the degree of actual implementation were shown in attributes related to knowledge sharing system or structure: "encouraging knowledge creating teams such as knowledge task force, the future group, or learning group," "encouraging employees to benchmark other organisations' best practices of knowledge sharing" and "supporting utilisation of a knowledge-related measurement mechanism." These attributes were relatively perceived as less important and were thus less implemented. As a means of organisational performance improvement, knowledge sharing has been publicised and implemented as a major tool or technique for mainly organisations in the private sector. As a result, knowledge sharing has been viewed as a major catalyst for performance improvement. Consequently, this exaggeration of circumstances may affect inspectors' perception of knowledge sharing principles and the actual usage of those principles.

The relationship between each of the hypothesised success factors and knowledge sharing success was tested by implementing multiple regression analysis. This study indicates that knowledge sharing training is critical to knowledge sharing success. This finding is consistent with previous and current knowledge sharing in KM research even though the organisational culture and top management support has been the most critical factors for success according to numerous previous studies. The first step of sharing organisational knowledge would be tracking and building the knowledge. Thus, sharing knowledge first seems logical, and training can help in this phase. This process can help employees logically and systematically establish the mapping of knowledge. This is why the knowledge sharing training was selected as the most critical success factor.

6 Contribution and limitation

This study has implications for the body of knowledge sharing in KM in general and for practitioners. This study is probably the first work to examine the success factors that affect the knowledge sharing systematically and statistically based on health inspectors. Moreover, this study may provide a framework for the development of an instrument for knowledge sharing implementation for food inspectors.

There are some major limitations to this study. The possibility of a biased perception of knowledge sharing in KM should be considered. As a means of organisational performance improvement, knowledge sharing has been publicised as one of the major tools or techniques through the mass media as well as various academic writings, including reports by major consulting companies. As a result, knowledge sharing has been viewed as a major catalyst for performance improvement without any assessment of the actual impact of its implementation. Consequently, this exaggeration of circumstances may affect managers' perception of knowledge sharing principles and the actual usage of those principles.

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