

# Effect of Internal Marketing on Processes of Knowledge Management System in Nasr-e-Esfahan Company

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## Abstract

Implementation of internal marketing in organizations especially service organizations equips them with competencies and capabilities that will be led to their performance enhancement besides enjoying environmental opportunities. Therefore, it can be stated that successful implementation of internal marketing can pave the way for successful implementation of organizational processes such as processes of knowledge management system. Also organizations can develop, organize and share knowledge through internal marketing in order to achieve competitive advantage.

The present study investigates the effect of internal marketing on processes of knowledge management system (knowledge creation, knowledge organization, knowledge formalization, knowledge transfer and knowledge application) in Nasr-e-Esfahan Company. Questionnaire was tool of data collection and the data were analyzed by means of Lisrel and Spss software. The findings revealed that the effect of internal marketing on each process of knowledge management system has been positive and significant and value of fitness indexes (GFI= 0.92, AGFI=0.91) in the model under study shows suitability of the model.

**Keywords:** Internal Marketing, Knowledge Management System Processes, Knowledge Management

**Introduction**

Knowledge management has been considered as a concept to describe processes through which organizations develop, organize, and share the knowledge in order to achieve competitive advantage (Yarigar-Ravesh, 2006). On the other hand, there are various factors effective on establishment and utilization of knowledge management processes and organizations have to pay attention deeply to these factors to enjoy benefits of creating knowledge processes. Internal marketing is one of the most important factors, because it is an important activity in developing a customer-oriented organization by taking into account the employees as internal customers. Major aim of internal marketing is to develop awareness of internal customers and eliminate functional obstacles towards organizational effectiveness (Amiri et al, 2009). Besides, role of employees in the knowledge cycle, i.e. knowledge creation, knowledge organization, knowledge formalization, knowledge transfer and knowledge application is highly influential. Also, employees play a key role in external marketing and obtaining profit. The present study explored the effect of internal marketing on processes of knowledge management system in Nasr-e-Esfahan Company.

**Research background****Theoretical background**

One of the alternatives to guarantee superior performance of organizations should be sought in successful role of human resource management. To achieve purposes of the organization in this sector, those who deal with customers' affairs should be considered. This aspect of activities of service organizations has proposed the topic of internal marketing. Nowadays, internal marketing has been known as a strategy to enhance performance of the organization. The related studies in this regard reveal that internal marketing activities improve competitiveness of the organization through influencing and motivating the employees and enhance competencies (Ahmed et al, 2003). On the other hand, successful utilization of knowledge management is one of the most critical success factors under competitive conditions in the knowledge era. The importance of this issue is to the extent that a number of organizations measure the existing knowledge and reflect it in their reports as intellectual capital of the organization as well as an index for ranking of organizations. These firms believe that establishment of knowledge management is essential as one part of the strategy of the organization (Yarigar-Ravesh, 2006). Given to the above-mentioned issues and lack of a study on the effect of internal marketing on processes of knowledge management system and its impact on gaining competitive advantage in organizations, the current study explored this effect and proposed a model which helps managers of organizations know the value of employees in implementing knowledge management system and its success for the organization.

**Internal marketing**

The core idea of internal marketing is on the basis that offering effective services requires having motivated employees who are aware of customers (Gronroos, 1981). The primary studies in this regard were in research literature of retail marketing and then it developed gradually and the relationship between employee satisfaction and customer satisfaction was emphasized according to the obtained arguments (Piercy & Harris, 1999). Subsequent studies not only were formed based on this basis but also brought about more development of the concept of internal marketing. For instance, Berry and Parasuraman have posed the idea that not only there is a relationship between employee satisfaction and customer satisfaction, but

also employees are internal customers of a business firm. They define internal marketing as "considering the employees as internal customers, considering jobs as products which satisfy needs of internal customers" (Berry & Parasuraman, 1991). Other researchers went beyond it to support this idea and claimed that employees are internal customers and also they are the first market (Sasser & Arbeit, 1989). Tendency towards prioritization of employees and developing the range of the concept of internal marketing was developed by claims of Berry and Parasuraman regarding that domain of internal marketing should contain activities which have been fulfilled by employees' activities since the far past. According to them, internal marketing is the philosophy to deal with employees as customers and this is a strategy to form job products in order to adapt with employees' needs (Berry & Parasuraman, 1991).

### **Dimensions of internal marketing**

Flipo (2000) explained elements of internal marketing as follows based on Ahmed and Rafiq's viewpoint in 1995: product as job, price as opportunity cost of employment, workplace as a place where jobs are offered near living place of internal customers and promotion as communications and reward system (Flipo, 2000).

### **Knowledge management**

Snowden has defined knowledge management as "determination and active management of intellectual properties either in the form of explicit knowledge that is maintained in knowledge transfer tools or in the form of tacit knowledge that belongs to people or communities". Explicit knowledge is optimized through compiling knowledge transfer tools and their accessibility and tacit knowledge is optimized through making relation to maintain, share and develop the tacit knowledge. Active management of intellectual properties is creation of managerial substructures and processes to collect knowledge transfer tools and communities in a common environment that is led to permanent creation, exploitation, and maintenance of intellectual capital (Rezaee, 2005).

### **Knowledge management processes**

Lawson (2003) proposed a model via combination of processes of three models. It was the result of merging and filtration of knowledge management processes of three groups of researchers including Wiig (1997), Parikh (2001) and Horwitch and Armacost (2002). According to this model, knowledge management cycle is divided into six processes: A) knowledge creation B) knowledge acquisition C) knowledge organization D) knowledge storage E) knowledge dissemination and sharing and F) knowledge application. (Lawson, 2003) ((Wiig,1997)) (Parikh, 2001) .(Horwitch & Armacost, 2002)

### **Empirical background**

In this regard, several studies have been carried out including:

Kuah et al (2012) proposed a model to measure knowledge management performance in a random environment. To this end, they used data envelopment analysis, Monte Carlo simulation and Genetic Algorithm. They presented a comprehensive model of knowledge management in their study and proved the accuracy of model data via Genetic Algorithm. Then they evaluated productivity of knowledge management as well as knowledge management processes using Monte Carlo simulation and data envelopment analysis and finally, they used their suggested model to assess knowledge management performance in

higher education institutions. The results of their model were employed to determine future strategies of knowledge management by managers.

Abzari et al (2011) explored the relationship between internal marketing and organizational commitment from the viewpoint of market orientation in hotel industry in Iran. They analyzed the results of the questionnaires and concluded that internal marketing is effective on organizational commitment both directly and indirectly and through market orientation.

Ting (2010) explored the effect of internal marketing on organizational commitment among teachers of elementary schools in Taiwan in a paper entitled the effect of internal marketing on organizational commitment, mediating effect of job satisfaction and job involvement. They concluded that internal marketing is effective on organizational commitment. Also it was determined that job satisfaction plays a partial mediating role in the relationship between internal marketing and organizational commitment.

Liao (2009) studied the mediating role of organizational commitment in the relationship between internal marketing and customer orientation in banking industry in an article entitled the effect of internal marketing on customer orientation in banking industry. The researcher confirmed the effect of internal marketing on organizational commitment and concluded that organizational commitment plays a mediating role in the relationship between internal marketing and customer orientation.

Nadeali et al (2013) analyzed the relation between organizational justice perception and establishment of knowledge management cycle from Nonaka and Takuchi's viewpoint in Isfahan Steel Mill Company and showed that there is a positive and significant relation between perception of organizational dimensions and processes of establishment of knowledge management cycle. Moreover, the relation between interactional justice and establishment of knowledge management cycle is more than other dimensions of organizational justice.

Tabatabaee and Akhavan (2011) explored the effect of internal marketing on service quality among the employees of Keshavarzi Bank in Gilan province and confirmed positive effectiveness of internal marketing on service quality. Also, explanation of a clear perspective, improvement and development of employees and reward as representatives of internal marketing has a significant effect on service quality.

Shami Zanjani and Rahimian (2011) found out that there is a positive and significant relation (70%) between organizational culture and establishment of knowledge management processes. Also there exists a positive and significant relation between each component of organizational culture and knowledge management processes. The result of simultaneous regression analysis revealed that only two components of performance orientation and social responsibility play an effective role in predicting the variable of establishment of knowledge management processes.

Majidian and Zorufi (2010) carried out a study entitled exploring the relation between organizational culture and knowledge management in Iran Khodro Company. In order to test the hypotheses, the sample size included 230 managers, authorities and experts of Iran Khodro Company. The data were collected via researcher self-made questionnaire and its reliability was equal to 0.96. The obtained results disclosed that all hypotheses were confirmed and ranking of correlation coefficients showed that the highest relation exists between job involvement and knowledge transfer.

Seyed Javadin et al (2009) explored the mediating role of organizational citizenship behavior in the relation between internal marketing and service quality. The statistical population in their study included 850 employees of the Gas Company in Tehran province. The research

was conducted using correlation-field method based on structural equations model. The results demonstrated that internal marketing actions in Gas Company in Tehran province have increased organizational citizenship behaviors of employees and finally service quality based on a conceptual model (path analysis).

**Conceptual model of the survey**

The hypotheses extracted from the conceptual model are as follows:

*Primary hypothesis: Internal marketing is effective on processes of knowledge management system in Nasr-e-Esfahan Company.*

Secondary hypotheses

1. *Internal marketing is effective on knowledge creation in Nasr-e-Esfahan Company.*
2. *Internal marketing is effective on knowledge organization in Nasr-e-Esfahan Company.*
3. *Internal marketing is effective on knowledge formalization in Nasr-e-Esfahan Company.*
4. *Internal marketing is effective on knowledge transfer in Nasr-e-Esfahan Company.*
5. *Internal marketing is effective on knowledge application in Nasr-e-Esfahan Company.*

The conceptual model containing research hypotheses is displayed in Diagram 1

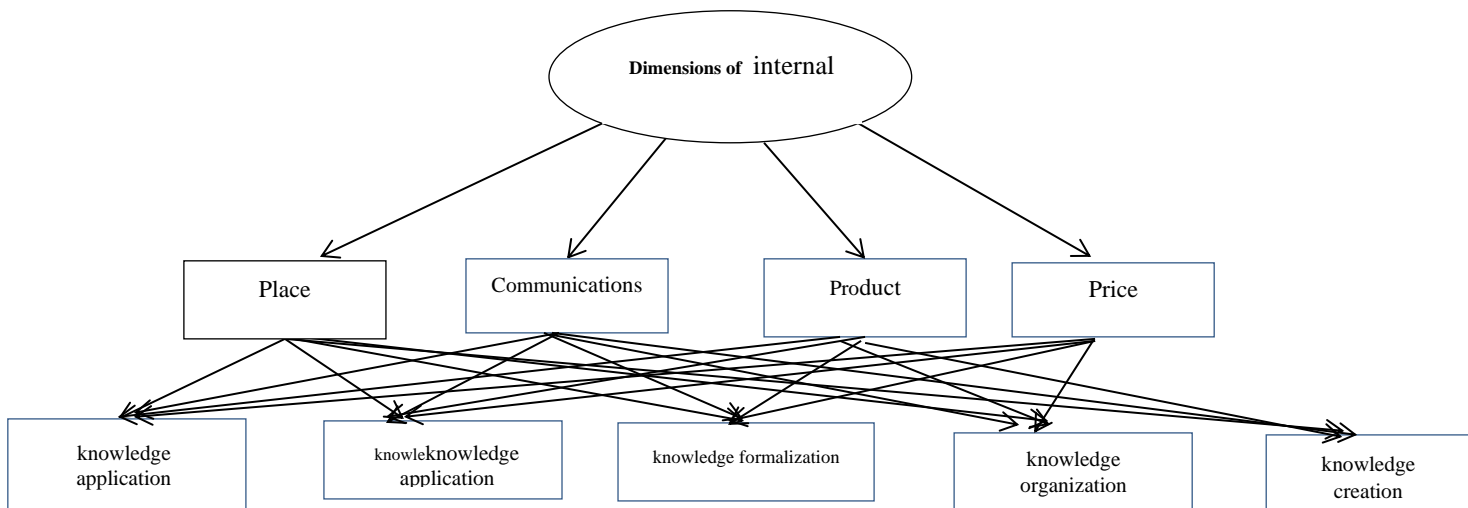


Diagram 1: The conceptual model of research

**Methodology**

This study was conducted using descriptive-field method. Three hundred questionnaires were distributed among the managers and experts and 250 questionnaires were returned which were then analyzed. The researcher operationalized six variables. Among the processes of knowledge management, five processes of the model proposed by Lawson in 2003 and dimensions of internal marketing based on Flipo's viewpoint (2000) and Ahmed and Rafiq's viewpoint (1995) were investigated. To determine validity, primary test of the questionnaire was conducted. Thus, the questionnaires were given to six experts and professors who had specialty in internal marketing and processes of knowledge management system. Having collected the questionnaires, irrelevant and ambiguous questions were identified and other questions were modified. Totally irrelevant questions were omitted. To calculate internal consistency of tools such as questionnaire or tests which measure various features, Cronbach's alpha coefficient is used. It was calculated equal to 85% by distributing 25

questionnaires in pre-test using SPSS software that is acceptable. Cronbach's alpha coefficients of variables are illustrated in the below table separately.

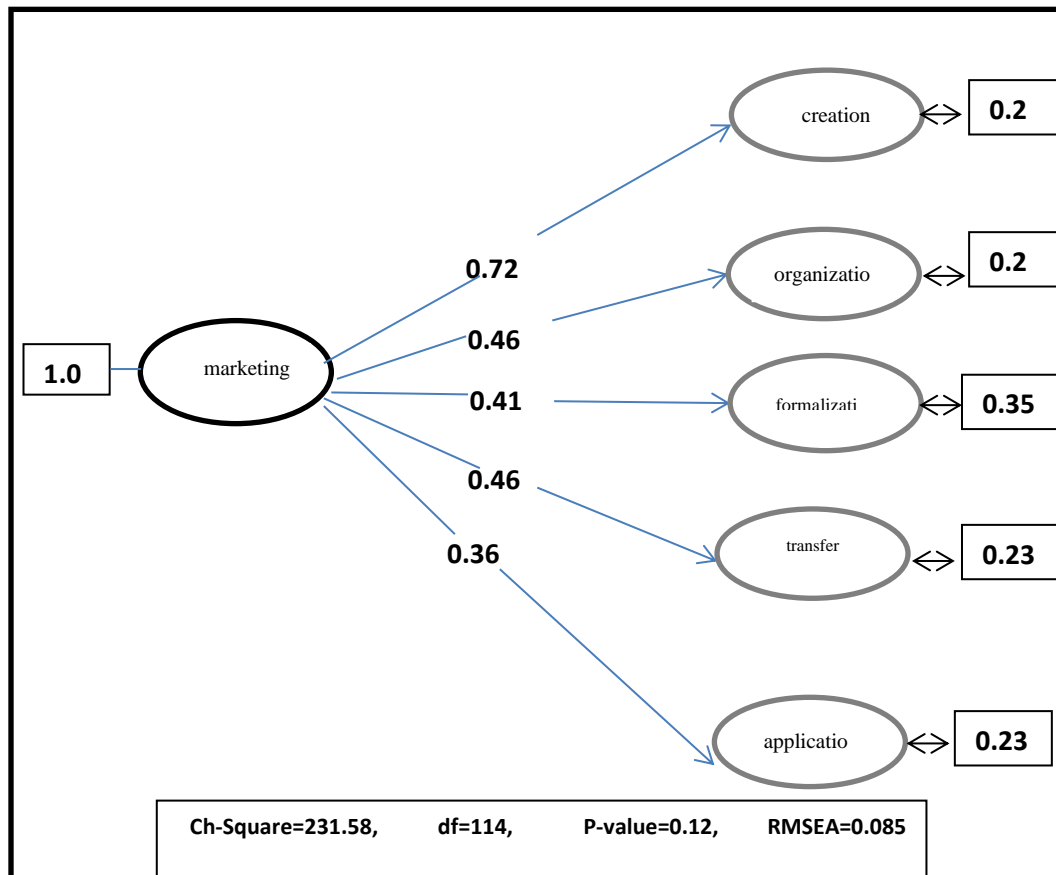
Table 1.

*Cronbach's alpha coefficient of variables*

Variable	Cronbach's alpha coefficient
Knowledge creation	77%
Knowledge organization	80%
Knowledge formalization	82%
Knowledge transfer	88%
Knowledge application	82%
Internal marketing	81%
Total	85%

### Findings

Multi-variable analysis is one of the most suitable and strongest analysis methods in behavioral and social sciences studies. It is applied to a series of analysis methods whose major characteristic is simultaneous investigation of  $K$  independent variables and  $N$  dependent variables. Analysis of covariance structures or causal modeling or structural equations model are one of the most principal analysis methods of complex data structures. Hence, as there are several dependent variables in the current study that the effect of the independent variable on these variables should be examined, it is essential to use structural equations model. To explore the proposed model, Lisrel software was used and the main model is as follows according to the output of this software in which relations among the variables and coefficients are shown. Given to the accomplished studies, the proposed model is presented in Diagram 2.



The following structural equations can be presented considering the results of Lisrel software.

Table 2.

*Testing the primary hypothesis*

Independent variable	Dependent variable	Significance level	Coefficient	Result
Price	Processes of knowledge management system	0.00	0.35	It is confirmed
Product		0.00	0.43	It is confirmed
Communications		0.00	0.37	It is confirmed
Place		0.00	0.46	It is confirmed

Knowledge Management=0.43\*product +0.35\*price +0.46\*place + 0.37\*promotion, R<sup>2</sup> =0.63

Table 3.

*Testing of hypothesis one*

Independent variable	Dependent variable	Significance level	Coefficient	Result
Price	Knowledge creation	0.00	0.57	It is confirmed
Product		0.00	0.60	It is confirmed
Communications		0.00	0.40	It is confirmed
Place		0.00	0.60	It is confirmed

Knowledge Creation=0.60\*product +0.57\*price +0.60\*place + 0.40\*promotion, R<sup>2</sup>=0.72

Table 4.

*Testing of hypothesis two*

Independent variable	Dependent variable	Significance level	Coefficient	Result
Price	Knowledge organization	0.00	0.24	It is confirmed
Product		0.00	0.56	It is confirmed
Communications		0.00	0.26	It is confirmed
Place		0.00	0.36	It is confirmed

Knowledge Organization=0.56\*product+ 0.24\* price+ 0.36\*place+ 0.26\*promotion R<sup>2</sup> =0.46

Table 5.

*Testing of hypothesis three*

Independent variable	Dependent variable	Significance level	Coefficient	Result
Price	Knowledge formalization	0.00	0.19	It is confirmed
Product		0.00	0.30	It is confirmed
Communications		0.00	0.29	It is confirmed
Place		0.00	0.50	It is confirmed

Knowledge formalization=0.30\*product+ 0.19 \*price+ 0.50\*place+ 0.39\*promotion, R<sup>2</sup> =0.41

Table 6.

*Testing of hypothesis four*

Independent variable	Dependent variable	Significance level	Coefficient	Result
Price	Knowledge transfer	0.00	0.26	It is confirmed
Product		0.00	0.57	It is confirmed
Communications		0.00	0.27	It is confirmed
Place		0.00	0.06	It is confirmed

Knowledge Transfer= 0.57 \*product + 0.26\* price + 0.06\*place + 0.37\*promotion, R<sup>2</sup> =0.46



Table 7.

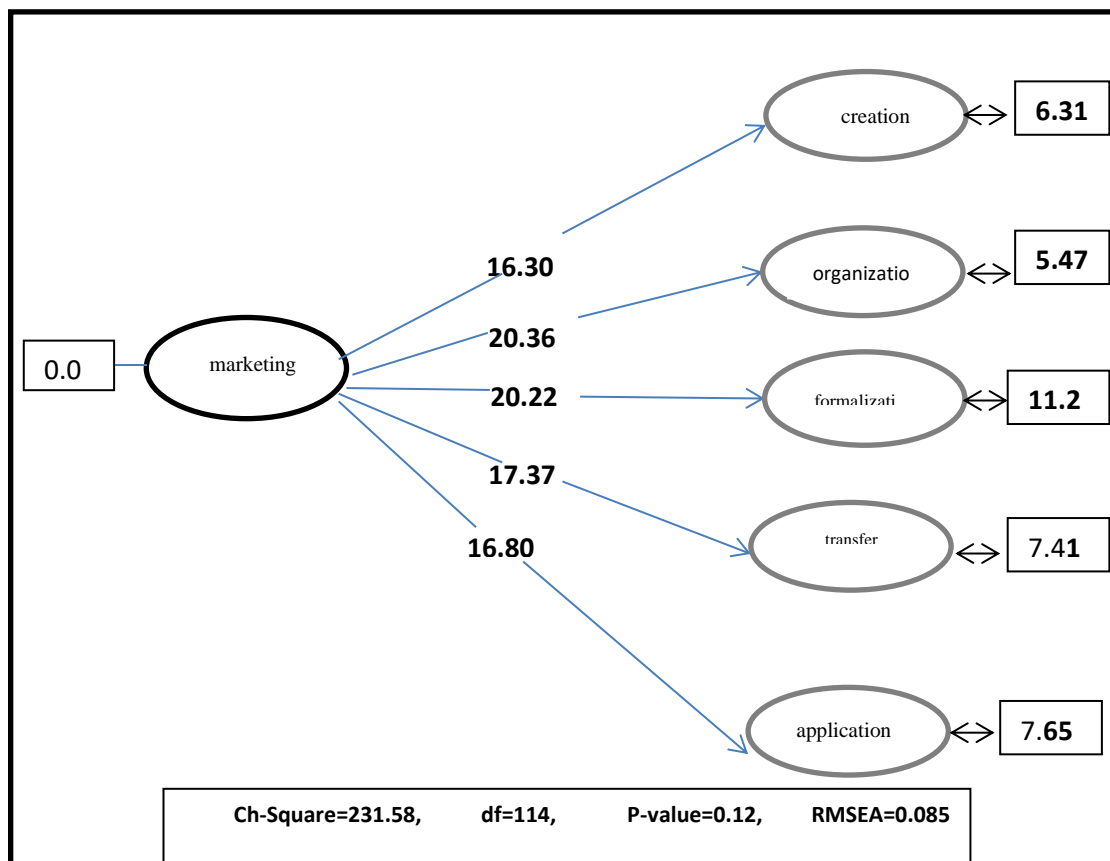
Testing of hypothesis five

Independent variable	Dependent variable	Significance level	Coefficient	Result
Price	Knowledge application	0.00	0.53	It is confirmed
Product		0.00	0.15	It is confirmed
Communications		0.00	0.56	It is confirmed
Place		0.00	0.06	It is confirmed

Knowledge application=0.15\*product+ 0.53\*price+ 0.06\*place+ 0.56\*promotion, R<sup>2</sup> = 0.36

Significance of relations

T statistic was used in order to show significance of parameters of the model. This statistic is obtained through the ratio of coefficient of each parameter that absolute value of *t* must be greater than 2 (abs(*t*) ≥ 2) in the test so that estimations become significant statistically. Given to the output of Lisrel software in Diagram 3, the calculated *t* is greater than 2 in all variables. Therefore, all estimations are significant statistically.



The below table shows briefly that each variable and its relations are significant.

Table 8.

*Evaluating significance of relations in the model*

Hypothesis	Name of relation	Standard value of index t	Significance numbers	Result
1	Significance between internal marketing and knowledge creation	Greater than 2	16.3	There is significance
2	Significance between internal marketing and knowledge organization	Greater than 2	20.3	There is significance
3	Significance between internal marketing and knowledge formalization	Greater than 2	20.2	There is significance
4	Significance between internal marketing and knowledge transfer	Greater than 2	17.3	There is significance
5	Significance between internal marketing and knowledge application	Greater than 2	16.8	There is significance

Considering Lisrel software and the above table, it can be concluded that the relationship between internal marketing and all processes of knowledge management system is significant.

**Goodness of the final model**

The major question is that whether the model is suitable or not. To respond this question,

statistic  $\frac{\chi^2}{df}$  and other measures of suitability of model's goodness are examined.

Given to Lisrel output, the calculated statistic is equal to 2.02. Low value of the statistic shows suitable goodness of the model, because whatever this value is less, the proposed model is more suitable.

P-value is greater than the standard significance level ( $\alpha=5\%$ ); thus, the proposed model is suitable. The most important goodness indexes are AGFI, GFI, CFI, RMSEA and NFI. Optimal states for these tests are shown in the below table.

Table 9.

*Studying suitability indexes of the model*

Name of index	Standard value of index	Value of index in the model	Conclusion
$\frac{\chi^2}{df}$	Less than 2	2.02	Goodness of the model is relatively suitable.
P-value	Greater than 0.05	0.12	Goodness of the model is suitable.
GFI	Greater than 0.9	0.92	Goodness of the model is relatively suitable.
AGFI	Greater than 0.9	0.91	Goodness of the model is suitable
RMSEA	Greater than 0.1	0.08	Goodness of the model is relatively suitable.
CFI	Greater than 0.9	0.91	Goodness of the model is suitable.
NFI	Greater than 0.9	0.92	Goodness of the model is suitable.

**Conclusion and Suggestions**

1. Given to the results, it can be suggested that internal marketing has a positive and significant effect on processes of knowledge management system. For instance, in testing the first hypothesis, internal marketing has a positive and significant effect on knowledge creation with correlation coefficient equal to 0.72.
2. Considering the obtained results among variables, it is suggested to managers to act more sensitively with regard to internal marketing in the organization and improve internal marketing dimensions in the organization via planning. This is because they try more to establish processes of knowledge management system by paying more attention to this issue and human resources will become more productive.
3. Among the dimensions of internal marketing, the effect of domestic product on processes of knowledge management system is relatively more than other dimensions. It means that domestic product is one of the effective dimensions in establishment of processes of knowledge management system. Thus, whatever this dimension is reinforced more, i.e. values and attitudes required by employees to achieve successful marketing strategies and educational courses to develop knowledge, processes of knowledge management system will be established more easily.
4. Given to the obtained results, the effect of place on processes of knowledge management system is more than other dimensions, that is, place dimension in internal marketing is more effective on establishment of processes of knowledge management system. It means that the management must have practical planning to transfer experiences to inexperienced personnel.
5. Among four dimensions of internal marketing, price has a weaker effect on knowledge formalization process; place has a weaker effect on knowledge transfer process; and product and place have a weaker effect on knowledge application process.

**Suggestions for future studies**

1. The suggested method can be implemented in other organizations and the results can also be compared. Also, several organizations with the same capacity can be explored separately and comparatively in several provinces in terms of the effect of internal marketing on processes of knowledge management system.
2. Results of this study are limited to the statistical population and the sample under study and different results are obtained by changing the place of research, sample size, etc. Thus, it is not possible to generalize the findings.
3. The findings are just limited to the time period when the data were collected and it is valid for a short-term period. Passing of time may affect the effectiveness of internal marketing dimensions on processes of knowledge management system which brings about difference in results.
4. The effect of other dimensions of internal marketing on other processes of knowledge management system can be explored.

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