The Role of Internal Marketing in Korea’s Public Medical Sector

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Abstract

This paper discusses how the concept of internal marketing (IM) can be applied to achieve competitive advantage within the public medical sector in Korea. We specifically examine relationships between IM, self-efficacy, internal customer satisfaction, service innovation, internal service quality, and competitive advantage. A confirmatory factor analysis validated the measurement model. We then tested the structural equation modeling using SPSS 20.0 and AMOS 18.0. The relationship between internal customer satisfaction and service innovation was not supported. However, we did find a relationship between self-efficacy, internal customer satisfaction, service innovation, internal service quality, and competitive advantage. This paper makes a contribution to the literature on IM and in terms of managerial implications. From a theoretical perspective, this paper seeks to identify the relationships among IM core variables based on the key variables identified in the study by Berry (1987). These variables include internal customer satisfaction, internal service quality, and competitive advantage in the context of healthcare service employees. The results of our study help extend the theoretical literature in this field. Our paper provides practical implications for managers of public and private hospitals. Our findings suggest that it is crucial for upper- and middle-level managers to understand the importance of IM in creating competitive advantage. We also outline the limitations of our study and provide directions for future research. Specifically, we only analyzed IM in public medical centers. However, future studies could investigate IM in the private medical services sector and compare it with the public sector.

Keywords: Competitive Advantage, Internal Marketing, Internal Customer Satisfaction, Internal Service Quality, Self-Efficacy, Service Innovation.

1. Introduction

1.1 Background

As standards of living in Korea have improved over the years, there has been an increasing interest in hospital services and a demand for better medical care. As a result, Korea has experienced a growth in medical tourism, which is mainly attributed to the sharp increase in Chinese and Japanese tourists. Moreover, the Korean population is aging, and the interest in keeping good health is gradually getting becoming higher. By 2020, the global number of people over 60 years of age will outnumber children younger than 5 years old.

The healthcare industry in Korea is considered to be one of the most important growth sectors. However, it faces increased competition. Organizations in the service sector continue to undergo significant changes and are operating in an increasingly competitive environment that requires organizations to build core competencies and to develop competitive strategies (Kharub & Sharma, 2017; Tsai & Wu, 2015).

The ability of a hospital in a local market to develop strategic competencies that are relatively superior to competing hospitals results in competitive advantages, which is increasingly critical for survival and growth in today’s turbulent healthcare environment. To obtain competitive advantage managers and executives in private and public hospitals have made various improvements, such as installing new medical equipment, refurbishing interiors, and providing new services.

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The service industry, such as hospitals or hotels, has front-line employees (Boukis et al., 2015), which are the heart and soul of any service organization and contribute to achieving the organization’s goals (Kotler et al., 2014). In providing services, they contribute to customer satisfaction or dissatisfaction, which happens when the customer comes in contact with a front-line employee of the firm (Kotler et al., 2014). Companies in the service industry should engage in internal marketing (IM). That is, they should inform their employees about customers’ needs, train them on a continual basis, support them in acquiring communication skills, and make them feel comfortable and satisfied with their job (Aburoub et al., 2011). Thus, organizations need to know how to motivate their employees and keep them satisfied. The logic of IM is to treat employees as internal customers and to build their job satisfaction (Boukis et al., 2015).

IM is of particular interest in the context of services provided by hospitals. The IM management philosophy consists of promoting the organization and its policies to employees as if they were the internal customers of the organization (Kim et al., 2016). This leads to internal customer satisfaction (Boukis et al., 2015) and organizational success (Guillermo et al., 2016). As stated above, IM is an important factor in creating competitive advantage through improving organizational performance, service quality, and innovation by meeting the needs of internal customers. IM has therefore attracted increasing interest from organization managers and academic researchers. Nevertheless, studies on the components of IM that influence internal customer satisfaction and internal service quality for hospital service organizations are scarce. Few studies have analyzed the relationship between IM and competitive advantage in Korea’s healthcare sector.

Our study is specifically concerned with achieving competitive advantage in the public medical sector. We specifically analyze the relationships between IM and other related variables such as internal customer satisfaction, service innovation, internal service quality, and competitive advantage. These variables were selected based on the model developed in the study by Berry (1987). Our study is also informed by the model and metamodel developed by Grönroos (1983). Therefore, we consider IM to be the source of competitive advantage. Based on Berry’s model, IM comprises qualities such as self-efficacy, internal customer satisfaction, service innovation, and internal service quality in the healthcare sector.

2. Literature Review

2.1 An Overview of the Medical Industry

The level of aging population in Korea is rapidly growing. As a result, many people require high-quality medical services. Furthermore, medical tourism attracts patients from different countries, especially China. Medical tourism is a highly profitable industry that was generated by merging medical services and tourism. For these reasons, the health sector is considered to be highly important for the Korean economy, due to its increasing health services and labor market developments. Accordingly, the demand for medical services personnel such as doctors and nurses is increasing.

In Korea, the number of healthcare workers and of hospitals is also increasing, as shown in Table 2.1. As we can see, the largest increases occurred from 2013 to 2014 and from 2015 to 2016, where the number of doctors, nurses, and nursing assistants rose sharply compared to other years. This phenomenon is attributed to the rise in Chinese medical tourists in those years.

| Profession           | 2012   | 2013   | 2014   | 2015   | 2016   |
|----------------------|--------|--------|--------|--------|--------|
| Doctor               | 86,761 | 90,701 | 93,904 | 95,500 | 97,753 |
| Nurse                | 119,828| 123,105| 143,460| 157,017| 178,332|
| Nursing assistant    | 121,171| 122,747| 134,027| 143,281| 169,341|
| Physical therapist   | 25,475 | 27,111 | 29,335 | 31,112 | 33,403 |
| Total                | 353,235| 363,664| 400,726| 428,925| 478,829|

Source: Korean Statistical Information Service (2016)
The number of medical facilities in general hospitals has also increased over time, as shown in Table 2-2).

| Areas          | 2012  | 2013  | 2014  | 2015  | 2016  |
|----------------|-------|-------|-------|-------|-------|
| Wards          | 140,441 | 145,764 | 150,718 | 156,103 | 158,055 |
| Medical beds   | 560,796 | 589,167 | 617,532 | 647,643 | 662,605 |
| Total          | 701,237 | 734,931 | 768,250 | 803,746 | 820,660 |

Source: Korean Statistical Information Service (2016)

Compared to modern private hospitals, the public’s expectations regarding public medical services are very high. For this reason, public medical centers are increasingly concerned with providing clinical effectiveness and high-quality services, as well as modernizing their medical centers. As a result, public expectations of clinicians and professionals have become more sophisticated and more complex. To survive, public medical institutes must change to stay relevant.

In this regard, the public health care sector in Korea has provided customer-oriented public medical services that seek to improve patients’ quality of life. It offers preventive services such as screenings for early detection of diseases, as well as public health education on disease prevention. There are health promotion centers in Korea’s 16 provincial and city branches. In this study, we conducted surveys in three of 16 medical check-up centers, including the center in Seoul.

2.2 Internal Marketing (IM)

2.2.1 The definitions of IM

IM, as the term implies, is the opposite of external marketing and assumes a demarcation between the inside and the outside of an organization. IM was first defined as “employee as internal customer and job the concept of opposite meaning of external customers as product” (Berry, 1981; George, 1990; Grönroos, 2008). Since then, there has been a great deal of debate around the term’s definition. Varey and Lewis (2000) highlight that IM evolved from the idea that employees constitute an internal market within the organization, which needs to be informed, educated, trained, rewarded, and motivated.

A review of the literature shows numerous definitions of IM. Scholars have defined IM as a philosophy or a way of thinking (Abzari et al., 2011; Bang et al., 2016; Proctor, 2010; Varey & Lewis, 1999), a strategic approach that can guide managerial decision making (Berry, 1987; Grönroos, 1983; Kim & Lee, 2016; Piercy & Morgan, 1995), or a set of initiatives and activities to be implemented (Rafiq & Ahmed, 1993; Tsai & Wu, 2007).

In this study, we define IM as a firm’s marketing strategy aimed at satisfying the needs of internal customers to achieve the firm’s external objectives, such as competitive advantage. This is done through key elements, such as communication, educational training, reward system, empowerment, and organizational atmosphere.

2.2.2 Theoretical Framework

This study adopts the IM framework developed by Berry (1987), which is based on improving service quality. This framework has several distinguishing features. First, treating employees as customers is meant to create a change in the attitudes of employees, making them more service-oriented. This is supposed to lead to better service quality and competitive advantage in the marketplace. Second, treating employees as customers requires that their jobs be treated as any other services of the company. Lastly, treating jobs as services involves the application of marketing techniques internally to attract and retain service-oriented employees (Varey and Lewis, 2000, pp. 223-225).

2.2.3 The Components of IM

Scholars have identified several components of IM. In their study of the UK retail banking sector, Papasolomou and Vrontis (2006) identified rewards systems, along with training and education, as two of the principal components of IM. Yi and Yi (2012) identified four factors to measure IM in a university hospital: education and training, a reward system, fairness, and convenience. Chen and Lin (2013) developed a model composed of six dimensions: work support, organizational atmosphere, organizational communication, educational training, motivation, and empowerment.
In their study on the influence of IM on employee satisfaction in a culturally diverse work setting, Huang and Rundle-Thiele (2014) identified three dimensions of IM: internal communication, training, and internal market research. Lim (2014) studied the relationship between perceived IM activities, self-efficacy, job satisfaction, and customer-oriented attitude among hospital nurses. The author identified four dimensions of IM: education and training, reward system, fairness, and convenience. Among these four dimensions, education and training were found to be the most significant.

Moreover, Joung et al. (2015) developed and validated a scale that assessed employee perception of IM. They found that three factors—vision, development, and rewards—were good predictors of employee job satisfaction. Likewise, Bermúdez-González et al. (2016) identified three IM components: internal value exchange, internal communication, and training. Moreover, Jeong and Lam (2016) proposed five dimensions of IM: vision, communication, overall development, job training, and reward system.

IM is a multidimensional concept (Bermúdez-González et al., 2016; Han & Ahn, 2014; Huang & Rundle-Thiele, 2014; Jeong & Lam, 2016; Joung et al., 2015; Kim & Chung, 2014; Yi and Yi, 2012). While there is no consensus on the number of dimensions that characterize IM, in this paper, we use four common dimensions that are recurring in the literature: internal communication, training and education, reward system, and empowerment. We also add a fifth dimension, which is the organizational atmosphere. This component influences internal customers' attitudes and behavior (i.e., their satisfaction and commitment) and is linked to internal customers' creativity. As such, is a critical factor of organizational performance.

3. Research Framework and Hypotheses

3.1 Research Framework

Berry (1981) showed that treating employees as customers leads to changes in their attitude. As a result of IM, employees become service minded, which leads to better service quality and competitive advantage (Varey & Lewis, 2000, pp. 223-225).

This study investigates the effect of IM on competitive advantage in the public healthcare sector. To do this, we have developed a framework with five IM components (internal communication, training and education, reward system, empowerment, and organizational atmosphere) and applied it in our study of medical center employees. We specifically test the relationships between IM, self-efficacy, internal customer satisfaction, service innovation, internal service quality, and competitive advantage.

3.2 Research Hypotheses

3.2.1 Relationship between IM and Self-efficacy

Several research studies have shown a significant positive relationship between individuals' self-efficacy and their positive attitudes (Murray et al., 2009; Schneller & Vandsburger, 2008). Compeau and Higgins (1995) reported that self-efficacy plays an important role in shaping individuals' feelings and behaviors. A variety of IM factors are expected to increase the self-efficacy of internal customers when they receive appropriate compensation and treatment from the company (Han & Lee, 2016).

To increase the self-efficacy of nurses, Song (2010) proposed that it is necessary to consider a job environment, education and training, and motivation when analyzing IM in hospitals. Based on the existing literature, this study presents the following hypothesis:

**H1:** IM has a positive influence on self-efficacy.

3.2.2 Relationship between IM and Internal Customer Satisfaction

Several studies suggest there is a positive relationship between IM and internal customer satisfaction (Alan & Frimpong, 2004; Kanyurhi & Akonkwa, 2016; Shahzad & Naeem, 2013; Rae, 2013; Wieseke et al., 2009). In their study on the relationship among IM, employee job satisfaction, and perceived organizational performance, Kanyurhi and Akonkwa (2016) found a positive and significant relationship between IM and employee satisfaction. Therefore, the following hypothesis is derived from the literature:

**H2:** IM has a positive influence on internal customer satisfaction.

3.2.3 Relationship between IM and Service Innovation

IM strengthens not only the cultural elements of innovation but can also lead to innovation within organizations (Chung & Oh, 2010). Tsai and Wu (2015) found that there is a positive relationship between IM and service innovation for nurses in hospitals and recommended that hospital managers strengthen service innovation through IM.
Hence, hospital managers could apply education and training strategies derived from IM practices to increase nurses' knowledge, enhance their care and innovation skills, and improve the quality of service toward patients. Based on a review of the literature, this study presents the following hypothesis:

**H3: IM has a positive influence on service innovation.**

### 3.2.4 Relationship between Self-efficacy and Internal Service Quality

Dillon and Lending (2010) reported that self-efficacy has a significant direct effect on hospital workers' attitudes toward hospital information systems. Internal customers with high levels of self-efficacy put more effort into their job than internal customers with low levels of self-efficacy (Park & Ahn, 2010). In addition, Lee et al. (2016b) found that the self-efficacy of flight attendants positively affects internal service quality. Therefore, internal customers with high self-efficacy can provide superior service quality to customers. Based on previous research, this study presents the following hypothesis:

**H4: Self-efficacy has a positive influence on internal service quality.**

### 3.2.5 Relationship between Internal Customer Satisfaction and Internal Service Quality

The degree of internal customer satisfaction largely determines service quality (Hartline & Ferrell, 1996; Malhotra & Mukherjee, 2004). In the service sectors such as healthcare, employees are performers rather than simply workers. As such, their level of satisfaction may affect their job performance, which affects the company's quality of service. The following hypothesis is derived from the literature:

**H5: Internal customer satisfaction has a positive influence on internal service quality.**

### 3.2.6 Relationship between Service Innovation and Internal Service Quality

Service innovation can improve service quality (Cheng et al., 2012). Firms' long-term competitive advantage depends on how well they embody service innovation in their effort to deliver quality services to customers (Sok & O'Cass, 2015). Lee and Kang (2011) pointed out that the drive to innovate is an essential factor in improving service quality innovation in the hospital industry. Consequently, the drive for service innovation and improving service quality has become essential for service organizations to grow and retain their competitive advantage. Based on these insights, we posit the following hypothesis:

**H6: Service innovation has a positive influence on internal service quality.**

### 3.2.7 Relationship between Internal Service Quality and Competitive Advantage

There is consensus among scholars that service quality is a source of competitive advantage (Bebko, 2000; Bell et al., 2005; Wang et al., 2006). Many firms have begun to invest in and promote service quality to achieve differentiation and build competitive advantages (Zeithaml et al., 2014).

Furthermore, Sharma et al. (2016) proposed that a customer-orientated internal service quality management system helps organizations become more competitive and leads to higher performance levels. In sum, companies in the service sector make great efforts to develop service quality in order to gain competitive advantage and sustain it through time. Based on our review of the literature, we present the following hypothesis:

**H7: Internal service quality has a positive influence on competitive advantage.**

### 3.2.8 Relationship between Self-efficacy and Internal Customer Satisfaction

In their study of five general hospitals in Korea, Kang and Kim (2014) found that self-efficacy was the main factor affecting nurses' job satisfaction.

Other scholars showed that individuals who are confident in their abilities and to perform a job are more satisfied in their careers. In their study on the service industry, by Lee and Lee (2017) revealed that self-efficacy has a significantly positive influence on employee job satisfaction. Building on these findings, we propose the following hypothesis:

**H8: Self-efficacy has a positive influence on internal customer satisfaction.**

### 3.2.9 Relationship between Internal Customer Satisfaction and Service Innovation

Previous research shows mixed evidence regarding whether innovation has positive effects on internal customer satisfaction. Many existing studies link innovative behavior to job satisfaction. However, more recent studies found that internal customers with high levels of satisfaction are the ones who influence innovation behavior (Mohamed, 2002; Sanders et al., 2010). Job satisfaction was also found to have a positive effect on innovation for nurses (Xerri, 2014) and service employees in general (Choi and Park, 2015).
Existing studies indicate that internal customer satisfaction in the medical service sector is one of the antecedent variables of service innovation. Thus, we posit the following hypothesis:

**H9: Internal customer satisfaction has a positive effect on service innovation.**

4. Research Design and Results

4.1 Research Design

4.1.1 Sample and Data Collection

Our questionnaire measured the dependent and independent variables by using the 5-point Likert scale. It also included questions about the respondents’ profile, such as gender, age, and employment duration in health service organizations.

Our sample included useable responses from 221 internal customers in the medical centers. Of the 221 respondents, 28.1% were male and 71.9% were female. This shows a relatively uneven distribution of gender, due to the job characteristics of hospital services. Most of the respondents (45.2%) were in the 31-40-year-old age bracket. Besides, employment categories included nurses (50.7 percent), doctors (9.5 percent), administrative staff (25.4 percent), and other (14.1%). The profile characteristics of the respondents are presented in Table 4-1.

| Characteristics     | N   | Percentage (%) |
|---------------------|-----|----------------|
| Gender              |     |                |
| Male                | 62  | 28.1           |
| Female              | 159 | 71.9           |
| Age                 |     |                |
| 20-29 ages          | 30  | 13.6           |
| 30-39 ages          | 100 | 45.2           |
| 40-49 ages          | 75  | 33.9           |
| Over 50 ages        | 16  | 7.3            |
| Job category        |     |                |
| Nurse               | 112 | 50.7           |
| Doctor              | 21  | 9.5            |
| General administers | 57  | 25.8           |
| Manager             | 5   | 2.3            |
| Other               | 26  | 11.7           |
| Duration of job experience | |                |
| Under 1 year        | 31  | 14             |
| 1-5 years           | 65  | 29.4           |
| 6-10 years          | 63  | 28.6           |
| 11-15 years         | 29  | 13.1           |
| Over 15 years       | 33  | 14.9           |
| Educational level   |     |                |
| High school         | 6   | 2.7            |
| 2 years of college  | 101 | 45.7           |
| 4 years of university| 100 | 45.2           |
| Graduate school     | 14  | 6.4            |
| Total               | 221 | 100           |

4.1.2 Measurement and Data Analysis Methods

In this study, items used to operationalize the IM components were mainly adapted from previous studies. Components with factor loading scores of less than 0.5 were removed. The components were measured using a five-point Likert scale (1 = strongly disagree and 5 = strongly agree).

The data was analyzed using Statistical Product for Social Sciences (SPSS, version 20.0) and Analysis Moment of Structures (AMOS, version 18.0). The measurement model was evaluated for overall fit with the data and we then conducted a confirmatory factor analysis. Before testing the hypotheses, reliability and validity tests were performed to further refine measurements.

The overall measurement model fit indices indicate that the comprehensive confirmatory factor model fits the data well ($\chi^2$(df)=852.379 (575), p=0.000, CMIN/DF=1.482, GFI=.852, IFI=.964, TLI=.955, CFI=.963.
The results of the confirmatory factor analysis are shown in Table 4-3. Cronbach’s alpha was used to assess reliability. Construct reliability (CR) is a measure of the internal consistency of items in a scale. All AVE values were found to be within the acceptable level in the literature (.5). The measurement model suggests good convergent validity, as shown in Table 4-3.

| Factors                        | Items | Std. C. | S.E.  | t-value | Cronbach’s a | Composite Reliability | AVE   |
|-------------------------------|-------|---------|-------|---------|--------------|-----------------------|-------|
| Internal communication        | IM1   | .800    | -     | -       | .862         | 976                   | .630  |
|                               | IM2   | .846    | .068  | 13.807  |              |                       |       |
|                               | IM3   | .731    | .073  | 12.042  |              |                       |       |
| Training & Education          | TE1   | .880    | -     | -       | .926         | 927                   | .759  |
|                               | TE2   | .868    | .050  | 19.555  |              |                       |       |
|                               | TE3   | .847    | .048  | 20.035  |              |                       |       |
|                               | TE4   | .890    | .050  | 17.832  |              |                       |       |
| Reward system                 | RS1   | .838    | -     | -       | .914         | 916                   | .733  |
|                               | RS2   | .950    | .059  | 19.009  |              |                       |       |
|                               | RS3   | .835    | .065  | 15.776  |              |                       |       |
| Empowerment                   | EM1   | .873    | .050  | 18.952  |              |                       |       |
|                               | EM2   | .873    | .055  | 18.475  |              |                       |       |
|                               | EM3   | .859    | .043  | 23.131  |              |                       |       |
|                               | EM4   | .867    | -     | -       |              |                       |       |
| Organizational atmosphere     | OA1   | .791    | -     | -       | .866         | 976                   | .717  |
|                               | OA2   | .918    | .078  | 15.306  |              |                       |       |
|                               | OA3   | .827    | .079  | 13.727  |              |                       |       |
| Self-efficacy                 | SE1   | .860    | -     | -       | .884         | 899                   | .691  |
|                               | SE2   | .831    | .068  | 15.053  |              |                       |       |
|                               | SE3   | .793    | .071  | 14.270  |              |                       |       |
| Internal customer satisfaction| ICS1  | .793    | -     | -       | .888         | 982                   | .700  |
|                               | ICS2  | .905    | .058  | 15.291  |              |                       |       |
|                               | ICS3  | .808    | .060  | 15.640  |              |                       |       |
| Service innovation            | SI1   | .874    | -     | -       | .912         | 924                   | .627  |
|                               | SI2   | .895    | .066  | 14.612  |              |                       |       |
|                               | SI3   | .733    | .063  | 16.602  |              |                       |       |
|                               | SI4   | .784    | .070  | 12.425  |              |                       |       |
|                               | SI5   | .817    | .035  | 26.814  |              |                       |       |
| Internal service quality      | ISQ2  | .717    | -     | -       | .884         | 892                   | .624  |
|                               | ISQ3  | .856    | .114  | 12.776  |              |                       |       |
|                               | ISQ4  | .719    | .098  | 10.764  |              |                       |       |
|                               | ISQ5  | .837    | .104  | 13.005  |              |                       |       |
|                               | ISQ6  | .809    | .111  | 11.902  |              |                       |       |
| Competitive advantage         | CA1   | .882    | -     | -       | .909         | 914                   | .779  |
|                               | CA2   | .944    | .059  | 21.344  |              |                       |       |
|                               | CA3   | .818    | .072  | 16.389  |              |                       |       |

χ²(df)=852.379 (575), p=0.000, CMIN/DF=1.482, GFI=.852, IFI=.964, TLI=.955, CFI=.963, RMSEA=.047.
The results of the correlations identified are shown in Table 4-5. We verified that all measurements had discriminant validity. As we can see, the square root of AVE for each construct was larger than the correlation coefficients between the constructs (off-diagonal elements).

<Table 4-5> Results of the Correlation Analysis

|                  | IC   | TE   | RS   | EM   | OA   | SE   | ICS  | SI   | ISQ  | CA   |
|------------------|------|------|------|------|------|------|------|------|------|------|
| Internal         | .793 |      |      |      |      |      |      |      |      |      |
| communication    |      |      |      |      |      |      |      |      |      |      |
| Training         | -.040| .871 |      |      |      |      |      |      |      |      |
| & Education      |      |      |      |      |      |      |      |      |      |      |
| Reward system    | -.034| .240**| .856|      |      |      |      |      |      |      |
| Empowerment      | .074 | .281**| .399**| .868|      |      |      |      |      |      |
| Organizational   | .017 | .234**| .200**| .252**| .847|      |      |      |      |      |
| atmosphere       |      |      |      |      |      |      |      |      |      |      |
| Self-efficacy    | -.026| .045 | .236**| .158*| .187**| .831|      |      |      |      |
| Internal          | -.29 | .144*| .410**| .254**| .165*| .159*| .837|      |      |      |
| customer          |      |      |      |      |      |      |      |      |      |      |
| satisfaction      |      |      |      |      |      |      |      |      |      |      |
| Service           | -.030| .228**| .228**| .330**| .189**| .083 | .266**| .792|      |      |
| innovation        |      |      |      |      |      |      |      |      |      |      |
| Internal          | -.002| .116 | .176**| .250**| .052 | .079 | .319**| .204**| .790|      |
| service           |      |      |      |      |      |      |      |      |      |      |
| quality           |      |      |      |      |      |      |      |      |      |      |
| Competitive       | .017 | .065 | .210**| .255**| .205**| .090 | .311**| .255**| .728**| .883 |
| advantage         |      |      |      |      |      |      |      |      |      |      |

IC: Internal communication of IM, TE: Training and education of IM, RS: Reward system of IM, EM: Empowerment, OA: Organizational atmosphere, ICS: Internal customer satisfaction, ISQ: Internal service quality, SI: Service innovation, CA: Competitive advantage

*p<0.05, **p<0.01

4.2 Results

4.2.1 Hypotheses test

As shown in Table 4-6, path relationships within the research model were analyzed by structural equation modeling (SEM) using AMOS 18.0. A SEM approach is recommended for analyzing the direct and indirect relationships of variables because this is a multi-variate regression technique capable of investigating direct and indirect effects among variables (Byrne, 2010). Therefore, this study aimed to use SEM to determine the hypothetical relationships among IM, self-efficacy, internal customer satisfaction, service innovation, internal service quality, and competitive advantage.

The fit indices of the research model shown in Table 4-6 are acceptable. The overall structural model showed that $\chi^2$ (df) = 1486.349 (876), p = .000, CFI = .927, GFI = .780, IFI = .928, TLI = .922, RMR = .033. A review of goodness-of-fit incidences showed that the proposed conceptual model fit the data well. The SEM results are shown in Figure 4-1 below.
4.2.2 The Hypotheses Test Results

The path analysis results of this paper are shown in Table 4-6.

| Hypothesis | Path | Path coefficient | S. E. | t-value | p-value | Results |
|------------|------|------------------|-------|---------|---------|---------|
| H1         | IM → Self-efficacy | .434 | .052 | 5.726*** | .000 | Supported |
| H2         | IM → Internal customer satisfaction | .799 | .068 | 9.098*** | .000 | Supported |
| H3         | IM → Service innovation | .619 | .113 | 5.108*** | .000 | Supported |
| H4         | Self-efficacy → Internal customer satisfaction | .097 | .063 | 1.739* | .082 | Supported |
| H5         | Internal customer satisfaction → Service innovation | .185 | .136 | 1.613 | .104 | Rejected |
| H6         | Self-efficacy → Internal service quality | .094 | .037 | 2.150** | .032 | Supported |
| H7         | Internal customer satisfaction → Internal service quality | .205 | .047 | 3.184*** | .000 | Supported |
| H8         | Service innovation → Internal service quality | .594 | .051 | 7.225*** | .000 | Supported |
| H9         | Internal service quality → Competitive advantage | 1.061 | .183 | 9.208*** | .000 | Supported |

p<0.1, **p<0.05, ***p<0.01

5. Conclusions

5.1 Implications

5.1.1 Theoretical Implications

In this paper, we have applied the model developed by Berry (1987) to the Korean context. Furthermore, we demonstrated how IM leads to increased competitive advantage. The findings of this study make a significant contribution to the literature on IM.
First, this study is one of the first to test Berry’s IM model through empirical analysis. We investigated the relationships between IM, self-efficacy, internal customer satisfaction, service innovation, internal service quality, and competitive advantage based on the key variables comprised in Berry’s IM model, which we applied to healthcare service employees. Our study is the first to identify the core factors of this IM model in Korea’s healthcare sector. We found that IM was the main source of competitive advantage and that it was achieved through internal customer satisfaction and internal service quality.

Second, our findings support the previous studies on IM showing that the healthcare sector is composed of five distinct but related substantive dimensions (internal communication, education and training, reward system, empowerment, and organizational atmosphere). This helps validate that these dimensions accurately represent the multidimensional concept of IM in the healthcare sector. Though scholars also focus on sub-dimensions IM, our findings reveal that five dimensions of IM in the healthcare service industry are significant elements of IM.

Third, our results indicate that IM has a positive effect on internal customer satisfaction, which corroborates the findings of previous studies (Bailey et al., 2016; Chen et al., 2015). Moreover, the positive relationship between IM and self-efficacy and between IM and service innovation are significant. Existing studies on these relationships are scarce. Our study helps extend this literature by confirming that IM leads to self-efficacy and innovation in the service sector.

Fourth, previous research on the relationship between self-efficacy and internal customer satisfaction has obtained similar results. Self-efficacy is "the conviction that one can successfully execute the behavior required to produce the outcomes" (Lee, 2014b). Internal customers with high levels of self-efficacy perform their jobs with energy and a positive attitude. Our study shows that internal customers with high self-efficacy can experience greater job satisfaction. Contrary to other studies, we did not find that internal customer satisfaction had a positive effect on service innovation. This result means that satisfied internal customers do not always reveal the service innovation behavior. Contrary to general hospitals, this job characteristics of an organization are usually not urgent, but routine medical service.

Fifth, our results show there is a relationship between self-efficacy, internal customer satisfaction, service innovation, and internal service quality. That is, internal customer satisfaction and service innovation have a positive influence on internal service quality. Satisfied internal customers have a good relationship with co-workers and tend to offer better service quality to customers. In the same way, service innovation, such as improving the process or giving extra service to customers contributes to high-quality service. The linkage between self-efficacy and internal service quality is significant. That is, internal customers with high levels of self-efficacy tend to do their best in their work, which in turn enhances service quality.

Sixth, this study supports the notion that internal service quality enhances competitive advantage. This means that the implementation of internal service quality can explain the improvement of competitive advantage, which is consistent with the results of the study conducted by Pereira-Moliner et al. (2016) on quality management and competitive advantage. Our paper extends the literature by looking at this relationship to the case of hospitals, where we identified that internal service quality is related to competitive advantage.

Most of our findings are under Berry's theory and contribute to the literature in the field of marketing. Our results also highlight the IM components that are most closely related to competitive advantage.

5.1.2 Managerial Implications

From a managerial perspective, our study provides several practical implications for hospital managers. First, it is important to develop organizational competencies to improve business performance. Particularly, we have shown that IM is an important factor in improving self-efficacy, internal customer satisfaction, and service innovation, which, in turn, improve internal service quality and competitive advantage. Therefore, it would be beneficial for top- and middle-level managers to focus on IM to create competitive advantage.

Second, our study analyzed five dimensions of IM: internal communication, education and training, reward system, empowerment, and organizational atmosphere. Top- and middle-level managers should focus on developing IM activities such as open and effective internal communication to understand employees' needs. Training and education can develop internal customers’ abilities and motivate them to become service-minded, which helps improve service quality. Managers should design appropriate reward systems to motivate the high performance of internal customers and drive service innovation. By working in an open environment, employees can share their ideas with co-workers, which can lead to innovative ideas. Also, by adopting IM activities, organizations can create the necessary conditions for becoming more successful and, as a result, to enhance their competitive advantage in marketing. Today's customers expect frontline employees to provide high levels of service and have extensive product knowledge (Kotler & Keller, 2016).
In hospitals, top- and middle-level managers should support frontline employees who frequently co-create value with customers. This can be done by sincerely considering employees as internal customers.

Third, incorporating IM strategies in hospitals will encourage employees such as nurses to commit to their organization. IM creates satisfied and committed internal customers that provide high-quality services, leading to patient satisfaction. Hence, hospital managers should develop and implement IM to achieve sustainable competitive advantage.

Fourth, creativity and innovation have become increasingly important drivers of the public sector transformation agenda (Hamzani et al., 2015). Our study indicates that innovation in public medical service organizations must be implemented to improve service quality. Therefore, top- and middle-level managers should strive to establish a strategy to generate service innovation that can result in high-quality medical services for customers. This strategy ultimately leads to a competitive advantage.

Fifth, the moderating effect of CSR authenticity on the relationship between IM and self-efficacy is significant. Internal customers feel proud and their self-efficacy increases by belonging to an organization that contributes to the development of society by practicing CSR activities, such as offering free hospital services for low-income patients. As an organization’s CSR activities influence internal customers’ self-efficacy, healthcare organizations should actively engage in authentic CSR activities.

Finally, top leaders in today’s globally turbulent environment must continuously realign their activities to achieve and sustain competitive advantage. The results of our empirical study shed light on some interesting issues regarding competitive advantage. It may be reasonable to assume that hospital executives or top- and middle-level managers in public sectors, including private hospitals, should become interested in the factors that influence a hospital’s competitive advantage. The public medical sector often struggles to keep abreast of clinical advances and technological developments. Managers in the public medical sector need to consider employees as internal customers and encourage nurse practitioners, doctors, and office workers to create new and better services.

5.2 Limitations and Suggestions for Future Work

While our study provides valuable theoretical contributions and managerial implications, it has some limitations. First, our work is entirely based on evidence from public medical centers in specific regions of Korea. Data were obtained from three medical centers in Seoul and the other two big cities. Furthermore, our sample only represents public hospitals. Second, the number of doctors in our sample was very small compared to nurses. For this reason, we could not conduct a t-test to analyze the difference between doctors and nurses. The results of the paper should, therefore, be interpreted in a general manner and adjusted to the specific characteristics of particular hospitals. Finally, our study investigated five components of IM, namely internal communication, education and training, reward system, empowerment, and organizational atmosphere. These components, however, do not represent IM in its entirety.

Finally, our study only investigated IM in public hospitals. Future research could investigate IM in the private healthcare service sector and also compare it to the public sector.

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