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Employer Branding in the Healthcare Sector: The Role of Instrumental and Symbolic Image Attributes Among Potential Applicants and Doctors

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ABSTRACT

This study draws from the instrumental-symbolic framework to analyze the employer image of public hospitals among final-year students and employed doctors. We examine the relative importance of perceived instrumental and symbolic employer image attributes in public hospitals in China among two groups of individuals (211 final-year students and 200 currently employed doctors). Both instrumental and symbolic attributes are significantly related to hospitals' attractiveness as an employer. Symbolic trait inferences explain incremental variance in employer attraction beyond instrumental attributes. Although both attributes explain similar portions of the variance in the two groups, the attributes that emerge as significantly related to hospitals' attractiveness are different. Finally, potential applicants have more favorable perceptions of both instrumental and symbolic attributes than employed doctors. Practical and theoretical implications deal with how hospitals should audit their employer image and manage their employer branding practices.

KEYWORDS

Recruitment; Employer branding; Employer image; Instrumental-symbolic framework; Employee retention; Public hospitals; China.

1. Introduction

Recruiting and retaining the most talented employees is a key issue for organizations' success and survival. This is especially true for the healthcare sector given that the growing demand for healthcare services contrasts with the diminishing supply of healthcare professions (van Hoye, 2008, 2012). As observed by healthcare managers in several countries (e.g., Canada, China, and Ireland), researchers and politicians are concerned about this increasing medical workforce shortage (Birchard, 2000; Fréchette et al., 2013; Ge et al., 2009). This problem is due to strict limits on program admissions, a rise in the average population age, increasing costs, and the duration of medical studies. These trends act as potential barriers for newcomers' entry into medical practice, with junior doctors leaving the healthcare service for better pay and conditions in other countries (e.g., Australia, US; Birchard, 2000). Hence, most public hospitals face competition for top talent and a shortage of well-trained primary care doctors (Ge et al., 2009), which may negatively impact on patient health care, thereby potentially contributing to poor public health service.

In recent decades, employer branding has received attention as one of the approaches for responding

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to these recruitment and retention challenges (Lievens & Slaughter, 2016; Theurer et al., 2016). Employer branding involves internally and externally promoting a view of what makes an organization distinct and desirable as an employer (Backhaus & Tikoo, 2004; Lievens, 2007). Employer branding has been suggested to be particularly useful in competitive labor markets (Held & Bader, 2018; Hughes & Rog, 2008). A strong employer image/brand is posited to make it easier for organizations to differentiate themselves from others and to attract more talented applicants (Cable & Turban, 2003; Collins & Stevens, 2002). Importantly, there is also evidence that an attractive workplace image pays off in better organizational performance (Fulmer et al., 2003).

Despite the importance of employer branding, most prior studies were conducted in industries such as banking, military, engineering, etc. (Baum & Kabst, 2013; Lievens & Highhouse, 2003; Lievens, 2007). As we noted above, it is urgently required to examine the role of employer image to attract and retain doctors in the healthcare industry. One possible reason for the lack of healthcare research is related to differences in the respective healthcare systems across countries. For example, in the US, physicians are typically self-employed and work in a fee-for-service system (Kim et al., 1996). Conversely, in China, physicians are mostly salaried employees in hospitals (Hesketh & Zhu, 1997). In addition, doctors in Chinese hospitals are known to have a tight relationship with their organization (Dukerich et al., 2002; Hesketh & Zhu, 1997), making it unsure that prior employer branding findings generalize to such a distinct cultural setting.

Hence, investigating the employer image of hospitals in China (Zhou et al., 2011; Zhu et al., 2016) might provide an opportunity to extend past employer branding research and theory. In such an investigation, it is pivotal to contrast the employer image views of multiple groups (Held, & Bader, 2018). That is, the target population should include both potential employees (i.e., potential applicants) and current employees (Backhaus & Tikoo, 2004). In a healthcare context, this means including people that are not salaried employees yet in hospitals (final-year medical students) vs. people that are salaried employees in the hospitals (doctors). By exploring differences between these different groups, one can determine which employer image attributes are of more importance to medical students vs. doctors.

Therefore, this paper aims to examine the relative importance of employer image attributes in public hospitals in China among two groups of individuals (final-year students and currently employed doctors). Conceptually, this study is important because we present the instrumental-symbolic framework as a fundament for studying employer image in the healthcare context. At a practical level, this study's conclusions inform hospitals on how to conduct much-needed employer image audits in target groups to find out which factors make them attractive as employers so that they can better manage their recruitment communication.

2. Theory

2.1 Employer image and organizational attractiveness as an employer

Lievens and Slaughter (2016) defined employer image as “an amalgamation of transient mental representations of specific aspects of a company as an employer as held by individual constituents”. According to this definition, employer image is made up of particular attributes that an individual associates with an organization as a place to work.

Apart from employer image, organizational attractiveness is also an often-investigated factor in employer branding (Held, & Bader, 2018). Whereas perceived attributes of employer brand image reflect an Elementalist perspective, organizational perceived attractiveness focuses on general feelings and attitudes toward the organization and thus reflects the outcome of branding through a more holistic view (Collins & Stevens, 2002; Gardner et al., 2011). In employer branding research (as in the current study), organizational attractiveness is therefore typically used as the dependent variable, whereas the different employer image attributes serve as the independent variables that predict organizational attractiveness. For example, Verčič (2021) found that perceiving an employer as attractive and as a good brand can add to internal communication satisfaction.

2.2 Instrumental and symbolic framework

Based on marketing insights, Lievens and Highhouse (2003) developed the instrumental and symbolic framework to conceptualize the different attributes associated with employer image. Instrumental attributes of the employer image describe the job or organization from a more objective, concrete, and factual point of view. They trigger interest among applicants and employees because of their utilitarian needs. Examples of instrumental employer image attributes include pay, benefits, and advancement opportunities (Lievens & Highhouse, 2003). According to the social exchange theory, for a person choosing between alternative actions, s/he tends to behave to maximize the reward s/he can get and minimize the cost s/he needs to pay (Emerson, 1976; Homans, 1958). As instrumental attributes correspond to the factual rewards which can be received from engaging in employment, instrumental image attributes are important. When determining and identifying dimensions of instrumental attributes, most scholars conducted an inductive qualitative strategy (targeted to the specific organization), because the items associated with employer image might be different across jobs, organizations, industries, and cultures.

Apart from instrumental image attributes, an organization is also attractive to applicants and employees because of its symbolic attributes associated with its image. As defined by Lievens and Highhouse (2003), symbolic attributes describe the job or organization in terms of subjective, abstract, and intangible attributes. The attributes convey symbolic organizational information in the form of imagery and trait inferences. Their importance can be understood in the context of social identity theory. The specific symbolic attributes that applicants or employees ascribe to the organization are linked to people's need to maintain their self-identity, enhance their self-image, or express their beliefs and personality (Aaker, 1997; Mael & Ashforth, 1995). Kumari and Saini (2018) found that the provision of career growth opportunities has the highest effect on both employer attractiveness and job pursuit intention, followed by work-life benefits and corporate social responsibility reputation.

Although symbolic attributes might be measured through various person-descriptive traits, a measurement that drew upon Aaker's (1997) brand personality scale has been widely used in previous research (Lievens, 2007; Lievens & Highhouse, 2003; van Hoye et al., 2013). In fact, Lievens (2007) developed an adapted version of Aaker's scale to measure symbolic trait inferences according to six different factors: sincerity (i.e., honest, sincere), excitement (i.e., daring, thrilling), cheerfulness (i.e., cheerful, friendly), competence (i.e., intelligent, technical), prestige (i.e., high status, highly regarded) and ruggedness (i.e., tough, rugged). Employees' and employers' ratings for instrumental attributes and symbolic attributes significantly differ (Schwaiger et al., 2022).

2.3 Employer branding in healthcare sector

Employer branding is positively related to job satisfaction and organizational identification (Bharadwaj et al., 2022) and plays a mediating role – alongside employee engagement – between its antecedents (job design, competitive compensation, organizational environment, career progression, and employers' prestige) and talent retention (Ahmed et al., 2022).

Despite its importance, surprisingly, little is known about the employer image of hospitals. Trybou et al (2014) found that professional attributes (hospital prestige, professional development opportunities for physicians) and relational attributes of hospitals (organizational and leader support) were major predictors of hospital attractiveness, whereas economic attributes (pay and financial benefits, job security) were only of limited importance. Yet, it was not suggested that hospital managers should downplay the economic aspect because this may cause dissatisfaction (Herzberg, 1966; Trybou et al., 2014). Other research (Kim et al. 1996) developed a model to explain variations in career intent among physicians. In this model, seven variables were considered to affect career intent, including organizational commitment, job satisfaction, search behavior, opportunity, met expectations, positive affectivity, and promotional chances. Taken together, the organizational attributes identified in those prior studies provide a first step in shedding light on the content of hospitals' image as employers.

However, if we frame these findings into the instrumental-symbolic framework introduced by Lievens and Highhouse (2003), it becomes clear that prior research mainly concentrated on the instrumental attributes and did not draw sufficient attention to examining the symbolic traits of hospitals as inferred by doctors or medical students. Given this scarcity of research in the healthcare sector, we also drew from findings of studies in other fields to develop hypotheses. Our first set of hypotheses considers how favorable employer image attributes are perceived by the two groups.

On one hand, potential applicants generate perceptions about an employer's instrumental or symbolic attributes before or during the recruitment process. A specific characteristic of final-year medical students (as compared to students in other majors) is that they had at least one year of internship in tertiary hospitals. Even if some of these students have not yet entered the recruitment circle, we can assume that they have already generated some basic and initial conceptions about which kind of organizations are attractive as an employer. Yet, as they will not have actually worked for these organizations, we can assume that their perceptions might be a bit "rosy". Thus, they might have too positive and sometimes even unrealistic expectations of their preferred employers (Barber, Daly, Giannantonio & Phillips, 1994; Lievens, 2007).

On the other hand, as suggested by Lievens (2007), when people work in an organization, they often experience a modification or adjustment of their views of their employers, which means that they typically assess the organization from a more rational and realistic point of view. Organizations might also be perceived to fail to fulfill some of the offerings that were promised during recruiting (Backhaus & Tikoo, 2004). Therefore, employees' perceptions of the instrumental and symbolic attributes might be less favorable than the ones held by applicants.

Hypothesis 1: Potential applicants have significantly more favorable perceptions about hospitals' employer's instrumental image attributes than employed doctors.

Hypothesis 2: Potential applicants have significantly more favorable perceptions about hospitals' symbolic image attributes than employed doctors.

The next hypotheses deal with the attributes deemed important for organizational attractiveness as an employer among the two groups. First, at the beginning of the job-search process, applicants primarily conduct a broad search about many organizations (Barber et al., 1994). As they do typically not narrow down their preferences to one or two future employers, they do not have very specific information about particular instrumental messages in early recruitment. This early job search behavior implies that applicants are more likely to generate general, rudimentary impressions about the organization, which are typically considered to be more abstract and trait-like (Trope & Liberman, 2003) than concrete and factual (Lievens, 2007). Contrary to potential applicants, employees can be assumed to be aware of the specific factual information inherent in the instrumental attributes of the organization they work for. Thus, we expect instrumental factors to explain more variance in hospital attractiveness as an employer for doctors than for medical students.

Hypothesis 3: Perceptions of instrumental attributes explain more variance in the public hospital's perceived attractiveness as an employer among employed doctors as compared to potential applicants.

Moreover, we expect symbolic attributes to explain more variance in the hospital's perceived attractiveness as an employer among employed doctors than among potential applicants. This hypothesis is based on organizational identification theory. As individuals become members of the organization, the organizational goals, values, and norms gradually internalize their self-definition. In turn, this reshaped self-definition influences their organizational identification (Mael & Ashforth, 1995; van Dick, 2004). Along these lines, it is striking that the attributes related to perceived organizational identity (see Dukerich et al., 2002) have a large similarity to the symbolic trait inferences.

Hypothesis 4: Perceptions of symbolic attributes explain more variance in the public hospital's perceived attractiveness as an employer among employed doctors as compared to potential applicants.

Finally, Lievens and Highhouse (2003) posited that even though instrumental attributes were

generally perceived as attractive attributes, organizations could not always use them as a basis to stand out from their competitors because instrumental characteristics did not differentiate organizations within the same industry. So, there seem to exist sharper differences between organizations within a given industry in terms of employees' perceptions of symbolic attributes (as reflected in different organizational cultures). As noted above, the role of symbolic attributes might also be more important among potential applicants because they have limited knowledge of the instrumental attributes of their future employer in early recruitment.

Hypothesis 5a: Symbolic image attributes have incremental value over and above instrumental image attributes in explaining public hospitals' perceived attractiveness as an employer among potential applicants.

Hypothesis 5b: Symbolic image attributes have incremental value over and above instrumental image attributes in explaining public hospitals' perceived attractiveness as an employer among employed doctors.

3. Method

3.1 Sample and procedure

Two samples were used in this study. The participants in the first sample consisted of potential applicants. Given that in recruitment activities, final-year students are one of the main targets, we contacted five clinical medicine colleges in South China. Online questionnaires were sent via email to 500 final-year students, while 120 other students completed paper questionnaires in these colleges. 260 surveys were returned. To increase the reliability of the data, we excluded participants that failed to answer completely and filled in the same answer throughout the questionnaire, resulting in a final sample of 211 students with a 34% response rate, including 55% female, with an average age of 22.82 (SD=1.72). Participants were asked to write down a single most admired public hospital to which they might apply in the future. Next, they rated the chosen hospital on instrumental and symbolic image attributes as well as on its attractiveness as an employer. Results across all participants covered 69 different public hospitals.

The second sample consisted of employed doctors who worked in a tertiary hospital in Guangdong province (South China). With the help of this hospital's HR department, a total of 303 questionnaires were distributed to doctors and all participants rated the hospital which they worked for on the same dimensions as the first sample. After excluding 23 invalid responses, we received completed questionnaires from 200 doctors, yielding a response rate of 66%. The final sample was made up of 50% female with a mean age of 39.36 (SD=8.72) and a mean seniority of 10.64 (SD=7.67). In general, these two samples showed a similar educational background: Over 98% of participants had obtained a bachelor's or higher degree.

3.2 Measures

3.2.1 Instrumental image dimensions

As it was important to ensure that relevant instrumental image dimensions were included, we followed previous studies (e.g., Lievens, 2007; van Hoye et al., 2013) and used an inductive qualitative strategy to identify job and organizational attributes, which possibly related to the attractiveness of Chinese public hospitals. In a pre-study, we conducted a structured interview with 14 interviewees. Respondents consisted of current employees in the public hospital (including 5 HR managers and 9 doctors that performed clinical functions). We contacted the interviewees through emails and the interviews were implemented via online voice or video meetings. Respondents were asked to answer one question: "why are/were employees interested in obtaining a job in this public hospital?" Interviewees also rated the degree of importance of each reason, using a scale ranging from 1 = *barely important* to 10 = *strongly important*. All interviews were transcribed. The reasons that had a high degree of overlap were combined into one. We also excluded reasons that were given less than 1% as

well as those receiving a rating lower than 5. Thirty-two reasons remained and were sorted into twelve categories, as shown in Table 1. Next, four Ph. D. students independently coded whether these categories reflected instrumental or symbolic image dimensions. We removed reasons which had large divergence among raters. The intraclass correlation (ICC) was .73, indicating the degree of agreement was good (Cicchetti, 1994). Table 1 shows that five categories were classified as instrumental attributes; three categories as symbolic attributes and four categories could not be classified. The statements that came out of the interviews served as items in this study's questionnaire. Respondents answered these items on a five-point Likert scale, ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

To validate the five-factor structure underlying the instrumental employer image questionnaire, we conducted a confirmatory factor analysis (CFA) in the total sample. Items were specified to load only on their relevant latent variable, whereas the latent variables were allowed to co-vary with each other. Several model fit indices were used. The Comparative Fit Index (CFI) and Tucker-Lewis index (TLI) are incremental fit indexes that measure the proportionate improvement in fit in comparison with a baseline null model (Hu & Bentler, 1999). The recommended cut-off criteria for evaluating these indexes are to have values equal to or higher than .90 (Bentler, 1989; Hu & Bentler, 1999). The root mean square error of approximation (RMSEA) is an absolute fit index that assesses how well the a priori model reproduced the sample data (Hu & Bentler, 1999). RMSEA should have a value less or equal to .08 (Browne & Cudeck, 1993; MacCallum, Browne & Sugawara, 1996; Steiger, 1989). After removing one item (e. g., "The hospital offers an opportunity to have advanced study or exchange abroad.") to improve model fit, results of the CFA model with a five-factor structure showed a good fit, *CFI* = .96, *TLI* = .94, *RMSEA* = .077. Moreover, the internal consistencies in Table 2 were satisfactory.

Table 1 Results of pre-study classifying reasons for joining a public hospital

Reasons	Dimension
The public hospital provides good rewards.	I
The public hospital provides opportunity of advancement.	I
The public hospital is located in a preferred location.	I
Working in the public hospital can learn a lot (other than school).	I
Working in the public hospital can maintain your interpersonal network.	I
The public hospital has a good workplace climate	S
The public hospital has a good reputation	S
Working in the public hospital is challenging.	S
The public hospital offers a good working environment.	--
Having an internship in the public hospital.	--
The public hospital is profitable.	--
Working in the public hospital is the best offer.	--

Note: "I" means Instrumental attribute. "S" means Symbolic attribute. Dashes indicate that this category was removed because it could not be classified.

3.2.2 Symbolic image dimensions

Symbolic image attributes were measured via an 18-item scale from Lievens (2007). This scale consisted of six factors: sincerity, cheerfulness, excitement, competence, prestige, and ruggedness. We reworded some items to be suitable in a hospital context. For example, the item "thrilling" was changed to "spirited". Respondents indicated the extent of agreement in which these items described the hospital as an employer on a 5-point Likert rating scale, with 1 = *strongly disagree* and 5 = *strongly agree*. To examine model fit, we conducted a CFA. Results of fit indices indicated the 6-factor model to produce a good fit to the data, *CFI* = .98, *TLI* = .98, *RMSEA* = .057. The internal consistencies in Table 2 were also satisfactory.

Table 2 Internal consistencies, means, standard deviations, and correlations of variables by sample

Variable	M_p	SD_p	M_c	SD_c	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
Instrumental images																
Geography preference	4.27	.79	4.46	.68	(.76\.73)	.28**	.27**	.11	.02	.29**	.17*	.12	.26**	.20**	.20**	.28**
Advancement	4.11	.78	3.66	.84	.49**	(.88\.90)	.80**	.60**	.39**	.61**	.63**	.60**	.66**	.58**	.58**	..66**
Education	4.08	.82	3.70	.88	.50**	.79**	(.83\.88)	.52**	.31**	.61**	.59**	.57**	.62**	.53**	.57**	.61**
Rewards	3.72	.94	3.10	1.02	.33**	.62**	.55**	(.88\.84)	.52**	.56**	.57**	.55**	.58**	.59**	.57**	.58**
Interpersonal relationship	3.69	.83	2.90	.97	.42**	.33**	.34**	.43**	(.64\.70)	.35**	.36**	.42**	.39**	.45**	.34**	.36**
Symbolic images																
Sincerity	3.93	.89	3.45	.98	.50**	.64**	.60**	.59**	.37**	(.95\.94)	.80**	.78**	.78**	.73**	.77**	73**
Cheerfulness	3.97	.82	3.51	.91	.51**	.65**	.64**	.52**	42**	.83**	(.91\.91)	.86**	.82**	.75**	.76**	.76**
Excitement	3.86	.81	3.31	.96	.43**	.64**	.64**	.57**	.43**	.79**	.82**	(.89\.93)	.81**	.80**	.80**	.70**
Competence	4.01	.78	3.54	.81	.50**	.68**	.66**	.59**	.40**	.78**	.78**	.84**	(.90\.83)	.82**	.78**	.77**
Prestige	3.93	.83	3.33	.93	.52**	.63**	.65**	.54**	.39**	.68**	.69**	.72**	.85*	(.94\.94)	.82**	.72**
Ruggedness	3.86	.87	3.33	1.00	.43**	.55**	.52**	.55**	.38**	.72**	.67**	.74**	.75**	.68**	(.95\.97)	.71**
Dependent variable																
Attractiveness	4.12	.74	3.66	.88	.55**	.62**	.58**	.49**	.31**	.63**	.65**	.67**	.73**	.70**	.59**	(.91\.94)

Note: M_p and SD_p represent means and standard deviations of potential employee sample. M_c and SD_c represent means and standard deviations of current employed doctor sample. Correlations of potential employee sample are on the left bottom. Correlations of current employed doctor sample are on the top right. Internal consistencies are on the diagonal. Rating scale is ranging from 1 = *strongly disagree* to 5 = *strongly agree*.

**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

3.2.3 Organizational attractiveness as an employer

A public hospital's attractiveness as an employer was measured via three items from Highhouse et al. (2003) on a 5-point rating scale, with 1 = *strongly disagree* to 5 = *strongly agree*. The items were slightly different across the two samples. For example, the item ("This hospital is attractive to me as a place for employment") in the employee sample was re-worded in the applicant sample ("This hospital is attractive to me as a place for future employment") because students had not yet decided about their employer. Table 2 shows the internal consistency was satisfactory.

4. Results

Table 2 shows the means, standard deviations, correlations, and internal consistencies of study variables in the total sample. In line with the instrumental-symbolic framework, all independent variables were significantly correlated with public hospitals' attractiveness as an employer in both samples.

The first set of hypotheses involved the differences between potential applicants and doctors in terms of their ratings on employer image attributes. Table 3 presents the means and standard deviations of each relevant variable broken down by sample. Hypothesis 1 stated potential applicants have more favorable perceptions of instrumental attributes than employed doctors. To test the hypothesis, we conducted t-tests per attribute between the two samples. There were significant ($p < .01$) differences between potential applicants and doctors on all instrumental attributes. Most potential applicants' ratings were significantly higher than those of doctors, including attributes such as the opportunity for advancement, the opportunity of training/education, rewards, and interpersonal relationships. However, one attribute (geography preference) had the opposite outcome (t = -2.65, see Table 3). So, Hypothesis 1 is partially supported. Further, we computed an effect size measure (Cohen's d, see the last column of Table 3) which expresses the mean difference between two groups in a standardized format (in terms of *SD*). The largest difference appeared in the attribute of interpersonal relationships (d = .89).

Hypothesis 2 dealt with the differences in the ratings of symbolic attributes between potential applicants and employed doctors. Table 3 shows there were significant ($p < .001$) differences in all symbolic attributes across the two groups, with the means of potential applicants being significantly higher than those of doctors. Cohen's d values suggest a medium to large effect size for all symbolic variables. These results support Hypothesis 2.

Table 3 Means and standard deviations of variables broken down by sample

Variable	Potential applicant sample (N = 211)		Current employee sample (N = 200)			
	M	*SD*	*M*	*SD*	*t*	*d*
Instrumental images						
Geography preference	4.27	.79	4.46	.68	-2.65**	-.26
Advancement	4.11	.78	3.66	.84	5.65***	.56
Training/Education	4.08	.82	3.70	.88	4.44***	.44
Rewards	3.72	.94	3.09	1.02	6.53***	.65
Interpersonal relationship	3.69	.83	2.90	.97	8.84***	.89
Symbolic images						
Sincerity	3.93	.89	3.45	.98	5.25***	.53
Cheerfulness	3.97	.89	3.51	.90	5.41***	.54
Excitement	3.86	.81	3.31	.96	6.19***	.61
Competence	4.01	.78	3.53	.81	6.02***	.60
Prestige	3.93	.83	3.33	.93	6.86***	.68
Ruggedness	3.86	.87	3.33	1.00	5.72***	.58
Dependent variable						
Attractiveness	4.12	.74	3.66	.88	5.62***	.57

Note: * $p < .05$; ** $p < .01$; *** $p < .001$

Hypothesis 3 posited that perceptions of instrumental attributes explain more variance in the hospital's perceived attractiveness as an employer among doctors as compared to potential applicants. To test the hypothesis in each sample, we conducted a regression analysis in which all five instrumental attributes were entered simultaneously. The results are shown in Table 4. In the potential applicants' sample, instrumental attributes explained 49% of the variance of attractiveness ($F_{(5, 205)} = 38.72$, $p < .001$), whereas these attributes explained 52% in the doctors' sample ($F_{(5, 194)} = 41.16$, $p < .001$). Next, to test whether there was a significant difference in explained variance across groups, we computed confidence interval (CI) for differences between independent R^2s, outlined in Cohen, Cohen, West, and Aiken (2002, p. 88). As the approximate 95% CI for the hypothesis significance test = .029 ± .134, from -.105 to .163 included zero, the difference in R^2s between the two samples was not significant at an alpha = .05 level. So, the results lend no support to Hypothesis 3.

Table 4 Regression results of attractiveness as an employer on instrumental and symbolic images broken down by sample

	Potential Applicant sample ($N = 211$)	Current employee sample ($N = 200$)	95% BCa CIs	
Variable	B	B	*LB*	*UB*
Instrumental images				
Geography preference	.29***	.15*	-.111	-.010
Advancement	.28**	.32**	-.039	.049
Training/Education	.10	.19*	-.019	.049
Rewards	.11*	.23***	-.013	.052
Interpersonal relationship	-.02	.04	-.010	.031
R^2	.49	.52	-.105	.163
Adjusted R^2	.47	.50		
Symbolic images				
Sincerity	.03	.16*	.003	.061
Cheerfulness	.11	.32**	.007	.076
Excitement	.09	-.15	-.033	.026
Competence	.27*	.31**	-.028	.043
Prestige	.24**	.14	-.055	.028
Ruggedness	.01	.10	-.006	.063
R^2	.57	.67	-.010	.212
Adjusted R^2	.56	.66		

Note: B = unstandardized coefficients; BCa CI = Bias-Corrected and Accelerated Confidence Interval Tests of significant; LB = Lower Bound; UB = Upper Bound. If zero is not included in CI tests, weights are significantly different between groups.

* $p < .05$; ** $p < .01$; *** $p < .001$

According to Hypothesis 4, perceptions of symbolic attributes explain more variance in the hospital's perceived attractiveness as an employer among doctors than among potential applicants. Table 4 also presents the regression analysis results for two samples. Symbolic attributes explained 57% of the variance in attractiveness among potential applicants ($F_{(6, 204)} = 44.88$, $p < .001$), whereas 67% among doctors ($F_{(6, 193)} = 65.35$, $p < .001$). We again used the formulas of Cohen et al. (2002, p. 88) to test the difference in explained variance. The approximate 95% CI for the hypothesis significance test = .101 ± .113, from -.010 to .212. Since the 95% CI included zero, the difference in R^2s was not significant at an alpha = .05 level. We also computed a 90% CI for the hypothesis's significance test. The confidence interval did not contain zero for the difference in R^2s between the samples ($\Delta R^2 = .101 \pm .093$, from .008 to .194, alpha = .10 level). So, the difference was marginally significant at an alpha = 0.10 level, lending at best marginal support to Hypothesis 4.

Furthermore, an inspection of the instrumental attributes in Table 4 showed that the specific

variables "Geography preference" (B = . 29, p < . 001), "Advancement" (B = . 28, p < . 01), and "Rewards" (B = . 11, p < . 05) emerged as significant predictors of organizational attractiveness as an employer among potential applicants. In the doctors' sample, in addition to these three variables ("Geography preference", B = .15, p < .05; "Advancement", B = .32, p < .01 and "Rewards", B = .23, p < . 001), "Training/Education" (B = . 19, p < . 05) were also significant. Inspection of the symbolic attributes revealed that "Competence" (in the potential applicant sample, B = . 27, p < . 05; in the doctors' sample, B = .31, p < .01) was the only consistent significant symbolic variable that predicted the attractive employer in both samples. "Prestige" (B = .24, p < . 01) emerged as another significant predictor in the potential applicant sample, whereas in the doctors' sample, "Sincerity" (B = . 16, p < .05) and "Cheerfulness" (B = .32, p < .01) were significant as well. To compare the importance of the employer image attributes across the two samples, we conducted confidence interval tests of significance via the platform RWA-Web (Tonidandel & Lebreton, 2014). Results in Table 4 show that the variables of "Geography preference", "Sincerity" and "Cheerfulness" had significant differences between potential applicants and doctors because the CIs for the comparison did not include zero at an alpha level of .05.

To test Hypothesis 5a and 5b about the incremental value of symbolic attributes beyond instrumental ones to predict a hospital's attractiveness, we ran a hierarchical multiple regression analysis in each sample (see Table 5). There were no violations of the normality, linearity, and homoscedasticity assumptions. In the first block, five instrumental predictors were entered. After the entry of six symbolic attributes in the next block, 13% of the extra variance was explained in employer attractiveness in the potential applicant sample. In the doctor sample, symbolic attributes explained 18% of the incremental variance. These results support Hypothesis 5a and 5b in both samples.

Table 5 Hierarchical regression analysis results broken down by sample

	Potential applicant sample (N = 211)	Current employee sample (N = 200)
Variable	B	B
Step 1: instrumental attributes		
R^2	.49	.52
Step 2: Symbolic attributes entered		
Sincerity	-.31	.10
Cheerfulness	.06	.29**
Excitement	.15	-.12
Competence	.22*	.21*
Prestige	.18*	.13
Ruggedness	-.00	.08
R^2	.62	.70
R^2 increment	.13	.18

Note: B = unstandardized coefficients.

* p < .05; ** p < .01; *** p < .001

5. Discussion

To date, the topic of employer branding has received substantial attention in the human resource literature (Backhaus & Tikoo, 2004; Theurer et al., 2016). Standing on the shoulder of previous researchers, we aimed to extend the role of the instrumental-symbolic framework for studying employer brands to the healthcare sector. Recognizing the importance of including different groups of individuals that are relevant to organizations in recruitment, we also examined differences in perceptions among key stakeholders by testing how instrumental and symbolic image attributes were related to organizational attractiveness as an employer among potential applicants vs. employed doctors.

5.1 Contributions to employer branding research and theory

This study confirms the viability of the instrumental-symbolic framework for auditing and managing employer image in public hospitals (in a Chinese context). In the potential applicant and doctor samples, both instrumental and symbolic attributes were significantly related to organizational attractiveness as an employer. In both samples, symbolic attributes explained incremental variance beyond instrumental attributes in predicting employer attractiveness. These results contribute to employer branding research and theory because they indicate the importance of integrating instrumental and symbolic factors associated with organizations when assessing employer image in public hospitals. As noted, prior studies typically focused on an instrumental job or organizational features. We showed that symbolic attributes serve as another key determinant in predicting employer attractiveness.

Second, in both samples, instrumental attributes explained the same variance in a hospital's attractiveness. This confirms the consistently important position of instrumental beliefs. More precisely, perceived geography preference, the opportunity for advancement, and rewards were identified as predictors of employer attractiveness among potential applicants. Beyond these three attributes, doctors additionally highly valued the opportunity for training or education. Yet, interpersonal relationships, which are often regarded as key social capital in China, did not predict hospital attractiveness in both groups. This is surprising because China is a hierarchical, relationship-based society and guanxi[1] has been a guiding principle in Chinese society, particularly in relation to business conduct (Bian & Ang, 1997; Fan, 2007; Michailova & Worm, 2003). Although interpersonal relationships were found to have positive impacts on job channeling and job mobility in China (Bian & Ang, 1997), our findings indicate that interpersonal relationships may not have similar effects on the hospitals' attractiveness.

A third key finding was that symbolic attributes explained marginally more variance in the public hospital's attractiveness as an employer among doctors as compared to potential applicants. The large portion of variance (67%) explained by symbolic attributes among doctors can be understood based on organizational identification theory. As noted above, individuals tend to choose activities congruent with salient aspects of their identities and the perceived identification may engender internalization of group values, and norms, creating more homogeneity in attitudes and behavior (Ashforth & Mael, 1989). It should be noted, though, that potential applicants value symbolic images as well because symbolic attributes explained a lot of the variance (57%) in this group too. However, not all symbolic attributes played an important role. Unlike doctors that paid more attention to attributes related to self-meaning (sincerity, cheerfulness), potential applicants were attracted to organizations with traits like competence and prestige (Inglehart, 1997).

Finally, potential applicants had consistently more favorable perceptions about an organization's instrumental and symbolic attributes than doctors, except for the variable of geography preference. So, there existed an important difference between the public hospitals' employer image as perceived by potential applicants vs. their identity as perceived by doctors. So, after entering the hospital, doctors might experience some discrepancy/disappointment related to their initial psychological contract. Future longitudinal studies should examine the effects of hospitals reneging on their employer beliefs or obligations on employees leaving the organization (Backhaus & Tikoo, 2004).

5.2 Limitations and directions for future research

A few limitations should be acknowledged. First, our sample of students and hospitals was limited. We considered only public hospitals in Southern China. We suggest that future researchers collect a larger sample and include more, diverse hospitals. Second, this study was cross-sectional like prior

1 The meaning of guanxi is different from friendships or simple relationships and can be seen as a set of reciprocal interpersonal linkages which imply a continued exchange of favors (Michailova & Worm, 2003).

studies in this domain (Lievens, 2007; van Hoye et al., 2013) and our results were collected via self-report measures at one single moment which may lead to common-method bias. Future research might follow a specific sample moving through the recruitment, selection, and employment phases. So, a longitudinal research design is advised for analyzing differences in the importance of employer image attributes across multiple time waves.

5.3 Practical implications

In terms of practical implications, this study demonstrates that the instrumental-symbolic framework can help hospitals strategically audit their employer image. For example, based on the current results, providing a "competent" and "prestigious" image to medical students during the recruiting process could increase the hospital's attractiveness as an employer. However, at the same time, we also suggest hospitals develop an image in their employer branding communication and recruiting process (e.g., via more accurate well-balanced messages) that corresponds to the reality of the organization inside so that people are not only attracted to the organization but also stay working there. This is because our results reveal that employed doctors do not have as favorable perceptions of their employer as the potential applicants.

This study also suggests that hospitals should conduct specific employer image audits for different target groups because of the instrumental-symbolic framework. Both the views of potential applicants and the insider views held by employees are important components of what makes an organization attractive as an employer and they should thus be audited and scrutinized. By integrating perceptions from different target groups, healthcare organizations can formulate and promote a more comprehensive and accurate value proposition to their employees and applicants.

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Disclosure statement

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