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Building hospital attractiveness in China through reputation: The importance of non-material resources

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Abstract

With the increasing competition among organizations for talent, employer attractiveness has become one of the most important priorities to gain core competitive advantage, to which a good instrumental employer image is important. This is especially true for primary hospitals that are still in a disadvantageous position in attracting talent compared to large hospitals with good material resources. However, it is yet unknown to which extent these hospitals can compete through non-material resources (i.e. medical service quality, hospital reputation). This study is designed to test a moderated mediation model that targets the interaction between instrumental employer image and medical service quality in explaining hospital reputation that will ultimately foster a higher employer attractiveness. This was empirically tested with a sample of 415 healthcare professionals to find an indirect effect of instrumental employer image on employer attractiveness via hospital reputation only when medical service quality was considered. Most importantly, there is a strong positive indirect effect when the medical service quality is high but the effect turns negative when the medical service quality is below average. Findings suggest smaller hospitals are able to compete for talent attraction by leveraging their perceived medical service quality.

Keywords: Hospital attractiveness, Hospital reputation, Instrumental employer image, Medical service quality

JEL Classification: M10, M12, I10

Resumo

Com a concorrência crescente entre organizações em busca de talentos, a atractividade do empregador tornou-se uma das prioridades mais importantes para ganhar vantagem competitiva, para a qual é importante uma boa imagem instrumental do empregador. Isto é especialmente verdade para os hospitais primários que ainda se encontram numa posição de desvantagem na atracção de talentos em comparação com os grandes hospitais com bons recursos materiais. Contudo, desconhece-se ainda em que medida estes hospitais podem competir através de recursos não materiais (ou seja, a qualidade de serviço médico, a reputação hospitalar). Este estudo foi concebido para testar um modelo de mediação moderada que visa a interacção entre a imagem instrumental do empregador e a qualidade do serviço médico na explicação da reputação do hospital que, em última instância, promoverá uma maior atractividade para o empregador. Este modelo foi testado empiricamente com uma amostra de 415 profissionais de saúde e evidenciou um efeito indirecto da imagem instrumental do empregador na sua atractividade através da reputação hospitalar apenas quando a qualidade do serviço médico era considerada. Mais importante, existe um forte efeito indirecto positivo quando a qualidade do serviço médico é elevada, mas o efeito torna-se negativo quando a qualidade do serviço médico está abaixo da média. Os resultados sugerem que os hospitais mais pequenos são capazes de competir pela atracção de talentos, alavancando na qualidade do serviço médico.

Palavras-chave: Atractividade hospitalar, Reputação hospitalar, Imagem instrumental do empregador, Qualidade do serviço médico

Classificação JEL: M10, M12, I10

摘要

随着各组织之间对人才竞争的日益激烈，雇主吸引力已经成为获得核心竞争优势的最重要的重点之一，对此，良好的工具性雇主形象非常重要。对于基层医院来说更是如此，与拥有良好物质资源的大医院相比，基层医院在吸引人才方面仍处于不利地位。然而，这些医院能在多大程度上通过非物质资源（即医疗服务质量、医院声誉）进行竞争尚不清楚。本研究旨在测试一个调节的中介模型，该模型针对工具性雇主形象和医疗服务质量在解释医院声誉方面的相互作用，最终将促进更高的雇主吸引力。通过对 415 名医护人员的样本进行实证检验，发现只有在考虑医疗服务质量时，工具性雇主形象才会通过医院声誉对雇主吸引力产生间接影响。最重要的是，当医疗服务质量高时，有一个强大的正向间接效应，但当医疗服务质量低于平均水平时，该效应就变成了负向。研究结果表明，小医院能够通过利用其感知的医疗服务质量来竞争人才吸引力。

关键词：医院吸引力、医院声誉、工具性雇主形象、医疗服务质量

JEL 分类： M10, M12, I10

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1. Introduction

With the advent of the knowledge-based economy, talent has increasingly become a valuable resource for employers to compete for, as human resources are one of the most important capitals for companies to gain core competitive advantage. Therefore, how to effectively improve employer attractiveness has become an important issue for corporate HR managers. Facing the increasingly competitive environment of talent attraction, companies are paying more and more attention to their own reputation and instrumental employer image because a good reputation and instrumental employer image can establish a unique employer brand and can lead the way in attracting potential employees compared with competitors, which is crucial to an organization's overall talent development strategy.

Hospitals, as organization made up mainly of highly qualified talents, need to attract excellent medical and nursing staff because the quality of their medical services is very much dependent on the quality of their human resources. Doctors and nurses play a central role in this, as their professional level is one of the main predictors of patients' choice of hospital (Al-Doghaither, 2003). Therefore, in order to attract the best doctors and nurses, hospitals strive to provide the best possible material resources such as salaries, career opportunities, learning and development opportunities. For hospitals with fewer material resources, such as Level 1 and Level 2 hospitals in China, these conditions are not easily affordable. This may explain why these hospitals are not as popular in the system (Bhattacharyya et al., 2011).

However, these hospitals can also provide other types of resources, namely non-material resources, that can be used to attract more doctors and nurses and are likely to increase their attractiveness to patients as well. This is because the medical service quality, as a kind of non-material resource, is the direct reflection of the level of diagnosis and treatment provided, which are what patients value the most when they come to the hospital. One great advantage that non-material resources have is that there will be no corresponding increase in costs to the hospital which makes this a strategic intangible asset.

Both material and non-material resources need good resource management to achieve rational development, reasonable allocation, organic combination, improve their utilization rate, and achieve good social and economic benefits. In this study, management is not only approached from the perspective of making good use of material resources, but mostly, within the service industry, it is primarily approached from the perspective of making good use of non-material resources, such as the climate associated with human resources and other psychological conditions that healthcare professionals seek when deciding where to work for. This sets an opportunity to research and

contrast the effectiveness of non-material resources in hospitals compared to material resources in creating a positive hospital reputation and attractiveness.

In this sense, this study aims to test the extent to which non-material resources (i.e. medical service quality) that hospital managers can provide contribute to a stronger attractiveness by means of a better hospital reputation.

Therefore, this study will first review scholarly research on employer attractiveness, hospital reputation, medical service quality, and instrumental employer image to ascertain their conceptual nature and theoretic and empirical findings relating them. These associations will be used to develop corresponding hypotheses and build our conceptual model. The thesis will proceed by detailing the methods used including the sampling procedure, the sample profile, and all the measures used in the study. The following section will show findings pertaining to the hypotheses to then discuss them at the light of the literature. Finally, we will summarize our conclusions and present the limitations of the study, based on which we make some recommendations for future research.

2. Literature Review

This section will start by exploring the literature that developed knowledge on employer attractiveness. It will show the importance of this dimension of organizations in both applied and theoretical terms, as well as how it has been defined, the sources of attractiveness, its special relation with industries that rely on qualified human resources, such as healthcare industry. It will then explore hospital reputation, its fundamental evaluative judgmental nature, how it differs from corporate image and identity, how it leverages organizational competitiveness highlighting its positive effects upon patients' decisions but also healthcare job application, thus relating it directly to the previous topic: how reputation favors hospital attractiveness to potential employees. We then explore a specific dimension of employer attractiveness which is based on its material offers, i.e. how much hospitals are able to satisfy potential healthcare professional applicants need for material resources, relating it with higher hospitals attractiveness and higher hospital reputation, thus giving hospital reputation a mediator status in this relationship. We then contrasted it non-material resources, namely by pointing out the literature on medical service quality, reasoning that an healthcare professional has motivations that go beyond simple material resources, and being mission-driven, a sense of paying good service quality to patients must be a primary motivator. Thus, we explored literature that suggested medical service quality to be an important factor that enhances hospital reputation, which we conceived as being in interaction with instrumental employer image to leverage hospital reputation at the eyes of healthcare professionals. This composes the literature foundations of the proposed conceptual model.

2.1. Employer attractiveness

Organizations have been increasingly building their competitiveness upon a highly qualified and talented workforce (Amankwah-Amoah, 2020). This puts pressure on the job market where talents are, per definition, scarcer than regular workers. As complexity and sophistication of production technologies and services provided increase (Gala et al., 2018), so is human capital becoming more qualified, which is an endeavor that takes time and challenges organizations (Robinson et al., 2006). This generates scarcity in available talents in specific areas, which puts even more pressure upon organizations to staff those critical job positions.

Therefore, organizations strive to improve their attractiveness in a fierce way, in what has become to be known as the war for talents (Michaels et al., 2001). Competitiveness is thus extended to attracting the best talent so to leverage one's competitive advantage (Ployhart, 2006).

This competitive dynamics for talent became visible also in the interest of scholars that focused on organizational attractiveness which is defined as “the envisioned benefits that a potential employee sees in working for a specific organization” (Berthon et al., 2005, p. 156). This is a relatively recent literature which has emerged in the second half of 1990s, but sharply increased from about three hundred published papers in the first decade of 2000, to over three thousand in the second decade where the last five years have witnessed about 2500 papers, and in the current year (2021) there were published more papers on this topic than those published in the first decade of 2000. Employer branding is a construct akin of employer attractiveness that has also sharply increased in published work and has been extensively researched (Banerjee et al., 2020; Bharti & Antil, 2021; Theurer et al., 2018).

This line of research explored the drivers of organizational attractiveness which highlighted two types: instrumental factors and symbolic factors (Lievens & Highhouse, 2003). An obvious source of attractiveness lies in the material resources an organization can offer to a prospective employee (Backhaus & Tikoo, 2004). These comprise work conditions, favorable geographic location, monetary munificence (salary, bonus and benefits) and should be seen fundamentally as instrumental in nature. Alongside with instrumental factors, the not so obvious existence of symbolic factors also matters to build organizational attractiveness. These comprise non-material resources such as the prestige from working in the specific organization, and the connoted sense of positive professional self-image.

This talent-focused HRM is more strongly felt in industries that require highly qualified professionals such as healthcare (Turner, 2018). However, there is little information available on employer attractiveness within the context of healthcare (Koch-Rogge & Westermann, 2021) with the first study focused on frontline employees’ perspective in healthcare being published very recently (Slatten et al., 2019). This study found that an internal-market oriented culture, i.e. a culture that treats healthcare professionals as internal clients favors the organizations’ attractiveness.

Delfgaauw and Dur (2008) found that the symbolic factors are critical for public hospitals as they usually are not able to compete with private ones in the level of salary due to the ethical imperative of offering reasonable healthcare at the possible lowest costs for the patient and society. Therefore, a sense of prestige and social value attached to being working in a specific renowned public hospital are competitive advantages public hospitals can leverage. This suggests symbolic factors have a strong effect into building employer attractiveness in healthcare, which is in line with findings from Trybou et al. (2014) which showed monetary factors were less important than non-monetary ones in attracting physicians. The quality of the medical service itself has been found to be an effective attractor in a study involving nurses (Fréchette et al., 2013) and hospital image, as an expression of

employer image (Li et al., 2004) was found to positively predict hospital attractiveness (Yan & Kung, 2017).

Overall, hospitals that want to increase their attractiveness – especially public ones – must strive to build prestige while not neglecting the importance of instrumental factors. Still, reputation is at the core of this purpose.

2.2. Hospital reputation

Bennett and Kottasz (2000), based on 16 previous definitions of corporate reputation, defined corporate reputation in broad terms as the perception of a corporation over time. From an array of articles and book on corporate reputation published between 2000 and 2003 (Barnett et al., 2006) state the definition of corporate reputation falls into three categories: awareness, assessment, and asset. They end up by defining corporate reputation as the "observers' collective judgments of a corporation based on assessments of the financial, social, and environmental impacts attributed to the corporation over time" (pg. 34). Eccles et al. (2007) highlight it concerns different stakeholders' judgment, which is in line with Highhouse et al. (2009, pg. 1482) definition of corporate reputation as "evaluative judgments of a corporation by multiple constituencies".

There has been a debate in literature pertaining to the conceptual nature and relationship between the constructs of corporate reputation, corporate image and corporate identity. Some authors sustain that image and reputation refer to the same idea (Furman, 2010) and others, that they are totally separated (Gotsi & Wilson, 2001). Grund (1996) helped to integrate these concepts into a clearer structure as he proposed that corporate image and corporate identity are dimensions within the larger construct of corporate reputation. So, corporate identity refers to the perceptions of internal stakeholders (e.g. employees) while corporate image refers to the perceptions of external stakeholders (e.g. customers). Reputation thus is the sum of both these internal and external judgments (Walker, 2010; Wartick, 2002).

Research on corporate reputation has produced different definitions, but it is Fombrun's (2012) definition that seems to be more generally accepted which is "A collective assessment of a firm's attractiveness to a specific stakeholder group relative to a reference group" (pg. 107).

Corporate reputation is an important organizational asset, and the shaping of a good positive organizational image is undoubtedly a great advantage in the face of competition (Grund 1996; Balmer & Greyser 2003) as organizations are also increasingly conscious of creating a good employer image to attract, hire and retain employees in order to grow and succeed (Moczydlowska & Leszczewska,

2015). First of all, an outstanding corporate reputation can reflect the excellence and convincingness of a product or service (Raithel et al., 2010). Secondly, customers do tend to prefer companies that have a better reputation (Morley 2002). Thus, higher corporate reputation means that customer loyalty and satisfaction with the organization will also continue to increase (Kim & Kim, 2017), as well as positive word of mouth, that leads to more customers being attracted, and trust in the organization generated, which leads to more willingness to buy (Jung & Seock, 2016). This is undoubtedly an important driver in guiding customers' future spending. A stable corporate reputation also attracts investors, as well as more partners (Kumar et al., 2019). Finally, for internal purposes, a good employer image enables organizations to attract and recruit better quality employees (Turban & Cable, 2003) while also developing a sense of honor and pride within those already working in the organization (Helm, 2011). With these positive experiences, employees feed back to the company in the form of better work outcomes and efficiency (Almeida & Coelho, 2019). So, a good reputation communication also brings a positive impact on a company's finances and leads to increased trust from shareholders (Bravo, 2016).

Corporate reputation of hospitals is also particularly important in the healthcare industry. As a reflection of this, in China, there is a unique grading system for healthcare institutions (Cinaroglu & Baser, 2018). This healthcare grading system divides hospitals into three levels based on their geographical area, resource allocation, and treatment capacity. Mainly, primary care institutions (1st tier) are chosen for common and multiple illnesses and the principle of proximity; upper tier hospitals (2nd tier regional) are chosen when there is an emergency, diagnostic difficulty or due to technical limitations such as equipment; and tertiary hospitals (3rd tier central) are chosen for major diseases, high-risk surgeries, or e.g. malignant tumors (Zeng et al., 2015; Zhan et al., 2019).

The system was designed within a healthcare reform intended to establish order to balance and rationally allocate and use healthcare resources and improve the quality and standard of healthcare services (Fang et al., 2016). While achieving some success there are also some problems, patients will choose to trust medium and large hospitals because of their better reputation (famous doctors, surgical specialists, word of mouth spread by patients), resulting in long distances to travel to see a doctor, long waiting times, and even serious consequences of untimely visits; doctors are difficult to book, with short exchange times but expensive (Lu et al., 2019); while hospitals at the grassroots level, due to their relatively lower corporate reputation, will not be efficiently used due to shortage of patients gauged against their resources (Huang et al., 2018).

This reputational effect is not exclusively observed in patients' choice. It also extends into professional choice by healthcare workers. Therefore, healthcare workers tend to make choices

considering their self-worth because of the different resources available to them. Although the work is intense, doctors and nurses prefer to work in highly reputable organizations such as tertiary hospitals rather than first and second tier hospitals, enjoying a prestigious social status along with high salaries and bonuses (Zhang & Liu, 2018).

This imbalance is not sustainable and therefore, authorities have been devising mechanisms to manage it. According to Xinfeng et al. (2010) there are some possible mechanisms such as building governmental policies in support of primary medical institutions that encourage medical graduates to work at the grassroots level with higher incomes and subsidies; and offer subsidies for staff e.g. housing and primary hospitals themselves, based on their pool of talent subsidies. In addition to this material resource support, basic hospitals offer younger doctors and nurses easier career advancement opportunities and provide continuing education and training. Working at the grassroots level will also reduce the stress and cost of living in a large city, with easy and unobstructed transportation (Xinfeng, et al., 2010).

Therefore, we hypothesize that:

H1: The more positive the reputation, the higher the hospital attractiveness

An obvious goal for hospitals, especially those that feel they are not being able to attract the best professionals, is to promote a positive reputation and image. This image is, by definition, subjective and perceptual in nature as inferred by Lievens and Slaughter (2016) definition: "an amalgamation of transient mental representations of specific aspects of a company as an employer as held by individual constituents" (pg. 409). A comprehensive study conducted by Maxwell and Knox (2009) in five industries, investigated several aspects of the work environment, workforce, type of work, management style, and employee rewards, to conclude that the most attractive attributes for professionals were not the same in each organization.

Some very visible physical resources such as good facilities, good equipment and location are advantageous to create a positive employer image (Moczydlowska & Leszczewska, 2015). State-of-the-art technology and facilities, a perfect workplace and a high salary can promote a positive social status of the employees within their social network, e.g. friends, family, stakeholders (Dutton & Dukerich 1991). It certainly also attracts potential employees before recruitment, increases the job application intentions of talented people, and after hiring, it enables identification with the employer, satisfaction with working conditions and loyalty to the organizational culture. A good financial profile

means that employee rewards are met. Large volume and size shape the perfect market image of an employer (Highhouse et al., 2009).

Furthermore, a good office environment, state-of-the-art facilities and technology and high salaries come at a high cost to the organization (JerutoKeitany & Richu, 2014). Employers pay the costs so that employees can be better engaged in their work in return for a good cycle. This also means that employees have to pay a relative result for their work (Tsui et al., 1997). In the case of large tertiary hospitals, for example, high prestige, high social status, high salaries and spacious office environments, cutting-edge technology and equipment are accompanied by greater workloads for doctors and nurses, large numbers of patients, longer working hours and more complex conditions. At the same time, employees enjoy these privileged material resources but are also subject to greater work pressure and reduced personal time, the more energy they devote to their work, the less further study and training they have for their personal business and the less responsibility they have for their families (Hu & Zhang, 2015). As a result, professionals will mostly choose organizations with a good employer profile to work for, while a significant proportion will choose a more suitable company for other considerations (personal development plans, family reasons, subsidies, transport) (El Koussa et al., 2016).

A perverse consequence of employers' decision to invest in material resources is that they may reduce investment in other areas. Thus, in some cases, the organization's promises to employees are not fulfilled, employees are no longer willing to put efforts into the organization and no longer believe in and accept the organization's goals; there is no set plan for the long-term career development of employees, and without continuous learning and training for employees, it is difficult to retain them (Goldstein & Closkey, 2006). According to Arora et al. (2020) young workers choice of an employer is not only focused on external rewards, but they opt to avoid being overburdened and look for opportunities to realize their inner self-worth and aspirations, while nurturing expectations for non-material resources.

Besides the possibilities that investing in material signals of wealth or high quality may bring negative outcomes for investing in non-material resources for employees, the general findings in literature show that applicants look for an employer positive image because it signals better available resources for them. Therefore, we hypothesize that:

H2: Instrumental employer image leads to higher hospital attractiveness

Another consequence of perceiving a good instrumental employer image originates from the fact that individual perceptions lead to share cognition among social groups, i.e. they nurture a reputation.

In the case of healthcare services, the instrumental value of any given hospital is very important to build a solid reputation. This occurs because in healthcare, organizations always struggle with rising

costs and the pressure to comply with a more demanding population that requires more and more healthcare is always putting strain in available resources (Dzau et al., 2020). Some of these resources concern the monetary pay to healthcare professionals or the level of investment put into doctors and nurses' training and career progression.

The system has always struggled with trying to provide the best material conditions to doctors and nurses but at the same time cope with the need to invest in expensive equipment, coping with high workloads due to the many incoming patients to the hospitals, mostly the central ones (Yip et al., 2020). For a doctor or a nurse in China, the material gain is very important because the average pay conditions are very valued, especially for younger workers (Wu et al., 2016).

H3: Instrumental employer image leads to higher hospital reputation

Because, as mentioned, it makes sense through literature to state a positive relationship of hospital reputation both with the instrumental employer image (as it contributes to improve hospital reputation with the healthcare professionals) as well as a positive relationship between hospital reputation with employer attractiveness (as it is logically an important motivation to opt for a workplace) then it is reasonable to hypothesize that:

H4: Instrumental employer image leads to higher hospital attractiveness through the mediation role of hospital reputation

2.3. Service quality

Competition is fierce in every industry and companies need to offer the best products and services to customers to be recognized in order to maintain their position and image in the competitive ranks (Zelga, 2017). Parasuraman et al. (1985) argued that consumers often rely on experiential attributes when assessing service quality, similar to emotional responses and judgement. As conceived in early studies (e.g. Lewis, 1989; Lewis & Booms, 1983), service quality is a measure of how well the level of service provided matches customer expectations, consistently satisfying customer needs. Simply put, it is the difference between customers expectation regarding the service performance and its actual performance (Joudeh & Dandis, 2018; Parasuraman et al., 1985).

The provision of high-quality services has also become an important strategy for success and survival in a competitive environment (Andronikidis et al., 2009) and a top priority for organizations (Johnson et al., 2001).

In the case of healthcare, service quality is even more important. Patients are often in critical life-and-death situations and their hopes are that the hospital provide the best possible service quality so to increase their chances of overcoming the disease.

Patients' perceptions of the quality of healthcare services have three dimensions. The first concerns the physical environment (e.g. the facilities). The second concerns social factors (namely the quality of interactions, including the attitudes and behaviors of medical staff, the quality of diagnostic and medical procedures). The last one concerns the quality of outcomes, including waiting times, satisfaction and loyalty (Awang et al., 2015). Meeting the expectations of the patient counterpart, for the hospital, patient satisfaction with hospital treatment has a positive impact on the image of the healthcare organization, as studied in medical tourism research (Afthanorhan et al., 2018).

With a positive perception of the hospital, patients are willing to continue their relationship with the hospital and recommend and refer potential patients to the hospital's services (Cham et al., 2014). For health care workers, meeting the health needs of patients, compassion and understanding for patients, and improving the quality of care, patients will indirectly choose hospitals through individuals, and what improves is the prestige and fulfillment of doctors and nurses (Boscariano, 1996). After all, dissatisfied customers cannot be loyal customers, while satisfied customers are always loyal customers (Afthanorhan et al., 2018). Therefore, hospitals must assess the needs and expectations of healthcare consumers to ensure that patients analyze the outcomes of healthcare processes to understand whether their expectations have been met in order to make judgements (Kui-Son et al., 2005).

Alongside with the impact of healthcare service quality on patients' experience, there is also a relation with the healthcare professionals themselves. In the healthcare professions, individuals are driven by the mission of saving lives and restoring health to the patients in need (Borkowski & Gordon, 2006; Walker et al., 2010). Therefore, it is intrinsically a part of the self-worth of physicians and nurses that, as health professionals, they make a positive difference in critical health situations (Weilenmann et al., 2021). This means that the expectation of being able to provide a high service quality to patients is also a possible motivator for the employer choices made by doctors and nurses. Therefore, it makes sense to conceive that along with the instrumental motivation, doctors and nurses build a positive reputation of hospitals also based on their perception about the level of medical service quality they provide. Thus, we hypothesize that:

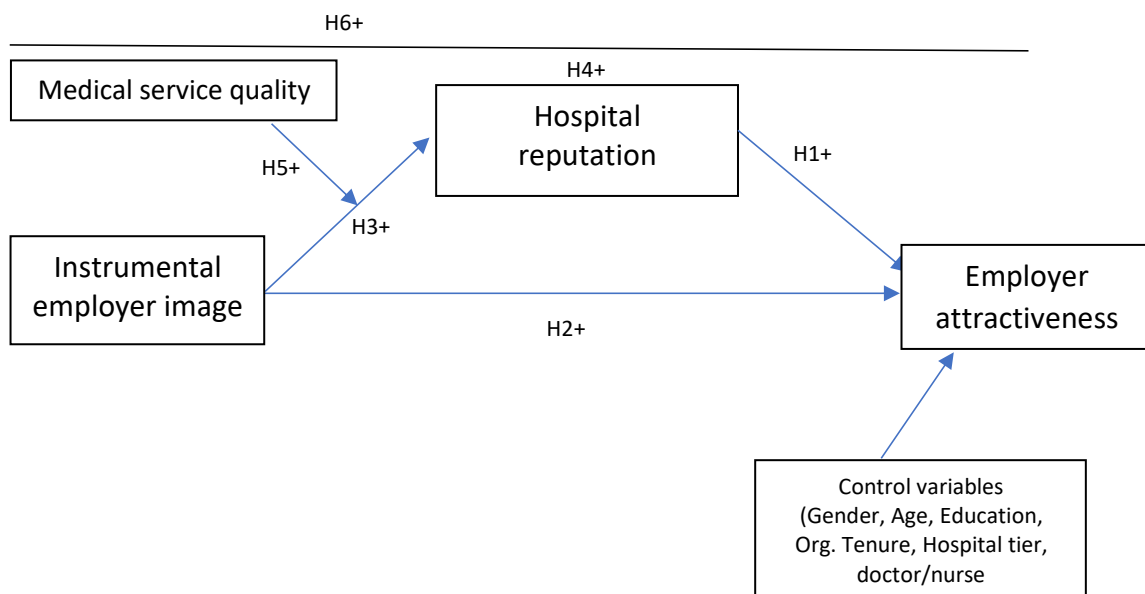
H5: Service quality interacts in the positive relationship between instrumental employer image and hospital reputation such that the relationship is stronger when service quality is higher.

As a consequence of all the previous hypotheses, and assuming the process that links instrumental employer image to hospital attractiveness operates both through the mediation of hospital reputation and is sensible to the moderation that service quality creates in the first path we then hypothesize a moderated mediation effect as follows:

H6: *Service quality interacts in the positive relationship between instrumental employer image and employer attractiveness through hospital reputation such that this indirect effect is stronger when service quality is higher.*

The integrated set of hypotheses is depicted in the conceptual model (Figure 2.1)

Figure 2.1 - Conceptual model



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3. Method

3.1. Procedure

Once the questionnaire was designed and ready, a request for authorization was sent to department directors introducing the study and asking for authorization to deploy it in the respective department. The departments belong to hospitals in Xi'an, Inner Mongolia and Guangdong provinces that were chosen because they represent three distinct settlements crossing vertically from southern coastal region to northern grasslands. Once the authorization was granted, each service sent to employees a link to access the questionnaire online with due informed consent and guarantees of anonymity and confidentiality. Simultaneously, an invitation was sent to the personal network of healthcare professionals working in hospitals via wechat asking to participate and with the same informed consent.

3.2. Sample

The sample comprises 415 valid cases. 447 answers were firstly received but screening for data quality, 32 cases were found to be poor because they were either including too many invariant responses (always the same value for many items), contradictory responses, or many missing values in the variables. All participants work in hospitals (mostly regional 2nd tier 46% or central 3rd tier 45%), performing professional functions as physicians (37.1%), nurses (36.6%) or administrative staff (24.1%) but also other (2.2%). It gathers individuals from all age groups, mostly in the 25-34 years-old (38.8%) followed by 35-44 years old (26%) and 45-54 years old (21.4%). The more extreme age ranges are less frequent in the sample (18-24 years-old 1.7%; older than 54 years-old 12%). Most participants are female (59.8%) and highly educated (Bachelor or more 99%). In average, participants are working in the same hospital at 9.9 years (SD=5.7).

3.3. Measures

All the variables were answered in a 7-point Likert scale (1=strongly disagree, 7=strongly agree) except were noticed.

Hospital reputation was measured with the short version of RepTrack (Ponzi et al., 2011) comprehending four items: 1. In my opinion a young promising doctor/nurse would have a good feeling about working in this hospital; 2. In my opinion a young promising doctor/nurse would trust this hospital; 3. In my opinion a young promising doctor/nurse would admire and respect this hospital; and 4. In my opinion a young promising doctor/nurse would think it has a good overall

reputation. The exploratory factor analysis showed a single valid factor solution (KMO=.787, Bartlett $X^2=929.354$, $df=6$, $p<.001$) accounting for 73.3% variance (Table 3.1). The scale is also reliable (Cronbach alpha = .878).

Table 3.1 – Principal components of Hospital reputation

	Component
3. In my opinion a young promising doctor/nurse would admire and respect this hospital.	.902
2. In my opinion a young promising doctor/nurse would trust this hospital.	.892
1. In my opinion a young promising doctor/nurse would have a good feeling about working in this hospital.	.825
4. In my opinion a young promising doctor/nurse would think it has a good overall reputation.	.802

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Hospital attractiveness as an employer was measured with the scale adapted from Highhouse et al. (2003) comprehending 3 items: 1. In my opinion for a young promising doctor/nurse this hospital is a good place to work; 2. In my opinion for a young promising doctor/nurse this hospital is attractive as a place for employment; and 3. In my opinion for a young promising doctor/nurse a job in this hospital is very appealing. The exploratory factor analysis showed a single valid factor solution (KMO=.752, Bartlett $X^2=821.478$, $df=3$, $p<.001$) accounting for 84.4% variance (Table 3.2). The scale is also reliable (Cronbach alpha = .907).

Table 3.2 – Principal components of Hospital attractiveness

	Component
2. In my opinion for a young promising doctor/nurse this hospital is attractive as a place for employment.	.931
3. In my opinion for a young promising doctor/nurse a job in this hospital is very appealing.	.913
1. In my opinion for a young promising doctor/nurse this hospital is a good place to work.	.912

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Employer instrumental brand image was measured with five items built by Luo (2017) based on Lievens (2007) recommendations (e.g. “This hospital provides the opportunities to maintain an interpersonal network”, “This hospital provides learning opportunities.”). The exploratory factor analysis showed a single valid factor solution (KMO=.821, Bartlett $X^2=1366.554$, $df=10$, $p<.001$) accounting for 71.5% variance (Table 3.3). The scale is also reliable (Cronbach alpha = .900).

Table 3.3 – Principal components of Instrumental employer brand image

	Component
5 This hospital provides the opportunities to maintain an interpersonal network	.889
4. This hospital provides learning opportunities.	.876
3. This hospital is located in a preferred location.	.849
1. This hospital provides good rewards.	.820
2. This hospital provides opportunity of advancement.	.791

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Service quality was measured with Chang et al. (2013) three dimensions taken from SERVQUAL (Berry et al., 2002; Parasuraman et al. 1985), namely: a) Service response (3 items, e.g. “The entire service process can complete service in a short period of time”), b) Service reliability (3 items, e.g. “The entire service process has no error”), and c) Service assurance” (3 items, e.g. “The entire service process can fulfill its promise to customers”). The exploratory factor analysis showed the nine items aggregated on a single dimension with a valid solution (KMO=.898, Bartlett’s $X^2=3550.286$, 36 df , $p<.001$) accounting for 70.1% of explained variance (Table 3.4). This solution was also found to be reliable (Cronbach alpha=.946).

Table 3.4 – Principal components of Service quality

	Component
3. The entire service process can complete service in a short period of time.	.898
5. The entire service process is able to correctly complete designated service items.	.879
6. The entire service process has no error.	.870
4. This hospital provides good rewards.	.864
7. This hospital provides good rewards.	.850
2. This hospital provides opportunity of advancement.	.827
8. This hospital provides good rewards.	.811
9. This hospital provides good rewards.	.769
1. This hospital provides good rewards.	.756

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The following **control variables** were used: age (1=18-24 years old, 2=25-34, 3=35-44, 4=45 to 54, 5=55+), gender (1=male, 2=female), profession (1=doctor, 2=nurse, 3=administrative staff, 4=other), education (1=up to bachelor, 2=bachelor, 3=master, 4=doctorate), hospital tier (1=3rd tier, 2=2nd tier, 3=1st tier, 4=other), and organizational tenure (1=up to 5 years, 2=6 to 10, 3=11 to 15, 4=16+).

3.4. Common method variance

Because the data was collected simultaneously, from the same source, and with subjective self-reported measures, there is a concern such cross-sectional design favors common method bias (Podsakoff et al., 2003). In such cases the size of the associations between variables in the model might be inflated due to the individuals' sense of consistency and if such happens, it cannot be trusted as representing reality. We have conducted Harman's test which consists of an exploratory factor analysis with all the variables in the conceptual model (all but the sociodemographic) with Kaiser's extraction method (eigenvalue > 1) and will indicate common method variance if 1) there is one large first factor accounting for more than 50% explained variance (before rotation), and 2) this first large factor is a mix of items from at least two different constructs. Such was not the case as the test indicates the factor matrix accounted for 73.4% of variance while the first factor accounted for 32.4% (which corresponds to 44.1%) thus falling below the 50% threshold. Additionally, the first factor is entirely made of the service quality items. Hence, we rule out common method bias.

4. Results

This section starts by showing the descriptive and bivariate statistics and then the results from the hypotheses testing.

4.1. Descriptive and bivariate statistics

The sample report a substantial perception of all the variables with the most present being service quality ($M=5.39$, $SD=1.17$) followed by the hospital reputation ($M=5.29$, $SD=1.19$) meaning participants tend to, on the average, consider their own hospital to have better service quality and enjoying a positive reputation. Employer attractiveness and instrumental employer image are very similar falling in the vicinity of 5.0 in the scale (Table 4.1).

The bivariate analysis showed only two minor cases of correlation between sociodemographic variables and those that compose the conceptual model. Such is the case of age and instrumental employer image which showed a negative correlation ($r=-.124$, $p<.05$) as well as education and hospital reputation ($-.144$, $p<.01$). This means that older participants tend to report lower levels of instrumental employer image and more educated participants also reported lower levels of hospital reputation. As regards the variables that compose the conceptual model, they are almost all positive correlated with each other to the exception of employer attractiveness with instrumental employer image which was quite a surprise. It is also important to state that the magnitude of the correlations is modest. Still, the overall bivariate correlation pattern is favorable to the hypothesized relationships.

Table 4.1 - Descriptive and bivariate statistics

	Range	Mean	Sd	1	2	3	4	5	6	7	8	9
1. Age	1-5	3.03	1.07	-								
2. Gender	1-2	59.8%F	-	-.080	-							
3. Profession	1-4	-	-	.090	-.015	-						
4. Education	1-3	2.17	.40	-.304**	-.042	-.071	-					
5. Hospital_tier	1-3	2.39	.65	-.075	-.151**	-.076	.068	-				
6. Organization_tenure	1-30	9.91	5.71	.767**	.005	.105*	-.341**	-.142**	-			
7. Instrument_Employer_image	1-7	5.03	1.26	-.124*	.051	-.008	.005	-.036	-.052	-		
8. Hospital_reputation	1-7	5.29	1.19	-.054	-.006	.050	-.144**	.038	.039	.131**	-	
9. Employer_attractiveness	1-7	5.02	1.69	-.003	-.002	.053	-.039	.003	.070	.029	.130**	-
10. Service Quality	1.33-7	5.39	1.17	-.016	.014	.022	.022	-.009	.021	.147**	.188**	.150**

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

4.2. Hypotheses testing

By using Process Macro all hypotheses were tested simultaneously with Model 7. The first hypothesis stated that the more positive the reputation, the higher the hospital attractiveness. Indeed, the coefficient found for this relationship is .1605 ($se=.0716$) which is significant ($t=2.2408$, $p=.026$, CI95 [.0197; .3013]) accounting only for 2.85% of variance. Hypothesis 1 is supported.

The second hypothesis stated that instrumental employer image fosters higher hospital attractiveness. This was not supported by our findings as the coefficient is .0114 ($se=.0668$) with a non-significant t value of .1704 ($p=.86$) CI95 [-.1199; .1427]. Hypotheses 2 is not supported.

The third hypothesis pertained to the relationship between instrumental employer image and hospital reputation that is hypothesized as being positive. Findings support this hypothesis as the coefficient is positive (.0933; $se=.0454$) and significant ($t=2.0578$, $p=.04$, CI95 [.0042; .1825]). Thus, hypothesis 3 is supported.

The fourth hypothesis stated a mediation role of hospital reputation in bridging instrumental employer image with higher hospital attractiveness. This mediation effect was not found as the indirect effect is .015 (Bootse=.0119) and the bootstrapped interval for 95% confidence crosses the zero value [-.0007; .0456]. So, the fourth hypothesis is not supported.

The fifth hypothesis pertained to the interaction effect of medical service quality into modulating the relationship between instrumental employer image and hospital reputation. Findings show an interaction effect of .1091 ($se=.0381$), which is significant ($t=2.8617$, $p=.0044$, CI95 [.0342; .1841]). The Johnson-Neyman table (Table 4.2) shows the cutoff for the conditional effect, i.e. at which level the moderator is exerting its influence in the relation.

In analyzing the table, the interaction effect is not straightforward. It shows two regions of significance, meaning that the moderator does not operate in a linear fashion. When the level of service quality is perceived as falling below the 2.27 mean, the effect is negative, meaning the stronger the instrumental employer image, the weaker the hospital reputation. Above this value and up to a mean of 5 there is no significant relationship but above this cut-off point the instrumental employer image is positively associated with hospital reputation from a coefficient that starts as .0891 and goes up to .2684. This supports hypothesis 5.

Table 4.2 – Johnson-Neyman significance regions

ServQua	Effect	se	t	p	LLCI	ULCI
-4.0624	-.3501	.1598	-2.1910	.0290	-.6641	-.0360
-3.7790	-.3191	.1494	-2.1355	.0333	-.6129	-.0254
-3.4957	-.2882	.1392	-2.0707	.0390	-.5618	-.0146
-3.2124	-.2573	.1290	-1.9943	.0468	-.5109	-.0037
-3.1185	-.2470	.1257	-1.9658	.0500	-.4941	.0000
-2.9290	-.2264	.1190	-1.9029	.0578	-.4602	.0075
-2.6457	-.1954	.1090	-1.7923	.0738	-.4098	.0189
-2.3624	-.1645	.0993	-1.6565	.0984	-.3597	.0307
-2.0790	-.1336	.0898	-1.4870	.1378	-.3102	.0430
-1.7957	-.1027	.0807	-1.2723	.2040	-.2613	.0560
-1.5124	-.0717	.0720	-.9963	.3197	-.2133	.0698
-1.2290	-.0408	.0640	-.6380	.5238	-.1666	.0849
-.9457	-.0099	.0569	-.1739	.8620	-.1217	.1019
-.6624	.0210	.0511	.4119	.6806	-.0794	.1214
-.3790	.0520	.0471	1.1038	.2703	-.0406	.1445
-.0957	.0829	.0454	1.8272	.0684	-.0063	.1721
-.0388	.0891	.0453	1.9658	.0500	.0000	.1782
.1876	.1138	.0462	2.4642	.0141	.0230	.2046
.4710	.1447	.0494	2.9289	.0036	.0476	.2419
.7543	.1757	.0546	3.2154	.0014	.0683	.2831
1.0376	.2066	.0613	3.3688	.0008	.0860	.3271
1.3210	.2375	.0691	3.4389	.0006	.1017	.3733
1.6043	.2684	.0775	3.4617	.0006	.1160	.4209

The specific moderation graph is depicted in Figure 4.1.

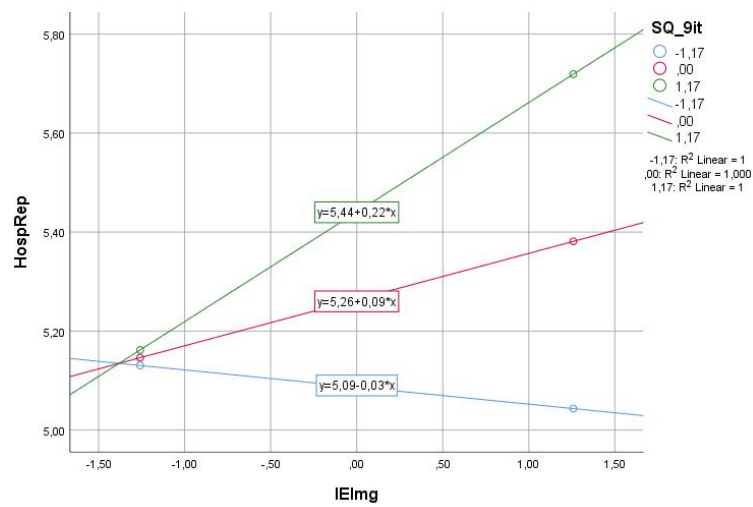
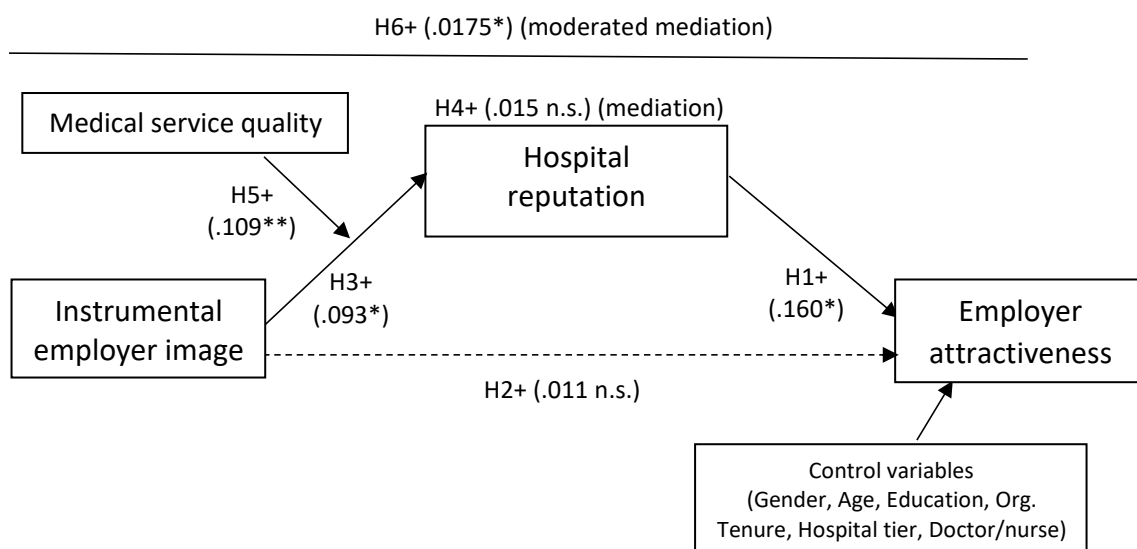


Figure 4.1 – Interaction instrumental hospital image, service quality and hospital reputation

The sixth hypothesis pertained to the moderated mediation effect. Because the model comprises both a mediation effect and a moderation effect in one path, the full model must test for the joint effects. The index is .0175 (BootSE=.0112) with a bootstrapped 95% confidence interval ranging from .0008 to .0439. Thus, the moderated mediation is significant, and this fully supports hypothesis 6.

The integrated findings are depicted in the figure below (4.2).

Figure 4.2 - Conceptual model results



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5. Discussion and Conclusion

This study departed from the observation that occupations such as the healthcare professionals in medicine or nursing are mission driven, i.e. that they are motivated by higher level values, such as protecting the wellness of others by preserving their health (Borkowski & Gordon, 2006; Walker et al., 2010). This mission drivers seem to be scarcely targeted in research on hospital attractiveness as the emphasis is mostly placed upon what the hospital, as an employer can provide in terms of material resources (salary, equipment, supportive resources). This entails a materialistic view of healthcare clinical professionals that would mostly be interested in the instrumental value of employers. However, in such professions it is reasonable to expect that non-material resources also play a role. These include hospital reputation, the quality of the medical service provided, team work climate, or psychological safety just to name a few. So, this study was designed to test the role such non-material resources play into explaining hospital attractiveness.

For such purpose a conceptual moderated mediation model was devised where medical service quality is given a possible moderation role in a process linking instrumental employer image to employer attractiveness via hospital reputation. Findings mostly support the model but there are specificities that are worth discussion.

Firstly, the findings seemed not to be biased by sociodemographic variables as although more educated individuals reported less hospital reputation (probably due to higher expectations) and older individuals tended to perceive a lower instrumental employer image (probably because as one grows older there is less expectation to thinking about possible future employers), all these variables were controlled in the analyses.

Secondly, hospital reputation was found to increase the employer attractiveness in line with Zhang and Liu (2018) findings. This effect is even stronger in this study because we did control for hospital tier which is a known factor of reputational differentiation in China that has deserved policies to make 1st and 2nd tier hospital balance their reputation compared to 3rd tier hospitals. Curiously we did not find a significant association between hospital tier and employer attractiveness (as a control effect) which could be due to the fact that the model already incorporates the key construct which is hospital reputation.

The absence of a direct effect between instrumental employer image and employer attractiveness goes against the proposal instrumental value (such as providing good facilities, equipment, salary) is a strong factor to attract employees such as found by Moczydlowska and Leszczewska (2015). This is an interesting finding because in our model this effect was measured in the presence of reputation.

From literature that explored mediation effects, it is long known from the seminal paper of Baron and Kenny (1986) that sometimes a direct effect ceases to exist in the presence of a suitable mediator thus showing a total mediation effect. Still, the absence of a direct effect does not preclude the existence of an indirect effect as rightfully claimed by Hayes (2009).

This interpretation gains support also from hypothesis 3 findings where a positive direct effect was found between instrumental employer image and hospital reputation. This goes in line with Wu et al. (2016) observation that clinical personnel in China values hospitals that are capable of providing high instrumental value such as good pay, but also, according to Yip et al. (2020) good material working conditions. So, this is indicative of the expected mediation effect.

However, such indirect effect was not supported in our data analysis. Albeit all indication in literature would suggest such mediational role for reputation, this was not the case in this study. The magnitude of associations between the independent variable and the mediator as well as between the mediator and the dependent variable is indeed modest with a correlation of 0.13 that is significant but still corresponding to very low accounted variance. Therefore, as an expected product of path coefficients, the indirect effect would be even lower, in this case, to become non-significant. Although this can be taken as a failure it is instead a promising finding because within the theoretical reasoning on employer attractiveness there are two dimensions and not only one. Lievens and Highhouse (2003) proposed an instrumental but also a symbolic attribute of attractiveness. These symbolic factors have been reported as having a stronger effect upon clinical personnel (e.g. Trybou et al., 2014) amongst which the quality itself of medical service (Fréchette et al., 2013). Thus, the indirect effect might not be present if we isolate it from the counterpart of instrumental value, which is symbolic value, amongst which one can find medical service quality.

This idea gains support from the fact that the interaction effect was significant in this study (as hypothesis 5 was supported) especially because the interaction effect itself showed stronger positive association between instrumental employer image and hospital reputation when the medical service quality was higher. This can be interpreted as an expression of a more complex cognitive structure when doctors and nurses think about hospital reputation. They simply do not focus on instrumental value only or medical service quality only but take both into consideration. They only perceive high hospital reputation when hospitals are able to provide both conditions: good instrumental working conditions, and good service quality.

This interaction effect was important because it opened way for a possible mediation and in fact the moderated mediation index was significant thus indicating that the overall reasoning behind the conceptual model was sound as indicated by the support given to hypothesis 6. So, the apparent

contradictions with previous literature seemed to be the product of a partial look into the model. The reality is more complex than the sum of its parts, and these findings show precisely that the variables must be taken together to gain a closer-to-reality knowledge.

A surprising finding pertains to the first significance region in Johnson-Neyman's table where a negative effect is found between instrumental employer image and hospital reputation when the average of medical service quality falls below 2.3 (the negative side of the scale below 3). This is a very important finding importance that although was not theoretically predicted, is of strong relevance as it suggests our fundamental reasoning for the model is correct. It basically indicates that contradiction harms hospital reputation. Thus, it is counterproductive to provide good material resources or gains to professionals (which are linked to instrumental employer image) if these measures are not accompanied by at least moderate medical service quality. If there is a strong contradiction between them, the effect is even negative as the significant coefficients found in the 1st significance region in Johnson-keyman table are all negative and up to $-.35$. Conversely, when professionals perceived that the hospital is providing both good material gains to them (high instrumental image) as well as good medical service quality to patients, then the effect become positive and can go up to $.26$.

The overall conclusion as regards the motivation of this study is that non-material resources are important to attract doctors and nurses as they create a joint effect with material resources into building a positive hospital reputation. The bet on strongly increasing material resources (e.g. salary, facilities, equipment, working material conditions) is necessary but, judging from our findings, it is not sufficient. These professionals also pay attention to non-material resources that relate to the meaning of their profession: save lives and protect human health and wellbeing. This can only happen when medical service quality is high. Thus, hospital managers must strive to pay attention to both dimensions if they are to attract the best clinical personnel. Both should be made known to the potential applicants as they will most likely judge employer attractiveness based on both dimensions.

5.1. Limitations

These findings must consider the limitations that any methodological design entails. The sampling process is not random which means that there could be some common feature in the participants pool that could be make them different from the overall clinical professionals' population in China. Still, findings used sociodemographic variables as covariates and any difference

due to gender, age, organizational tenure, education or even hospital tier have been accounted for in the models. Likewise, the sample came mostly from three provinces, that albeit being very different among themselves (Xi'an, Inner Mongolia, Guangzhou) are not representative of all China. Still, we expect the cognitive functioning that underlies the conceptual model mechanisms to be common among all individuals in these professions. However, we have not controlled for fundamental personality or personal values differences as in some cases instrumental values can take precedence and in some other cases individual terminal values would do so (Rokeach, 1973) although the most commonly observed values in doctors and nurses are altruism, equality and capability (Moyo et al., 2016), all in line with the mission-driven nature of healthcare clinical professions (Walker et al., 2010).

Another important limitation comes from having collected data for all variables at the same time. This obviously precludes from ascertaining causal relations. The cross-sectional design has been much criticized for being interpreted hastily as cause-consequence design, which is not. Still, temporal precedence is not a key condition for causal nexus because in complex human interaction causality is more circular than linear. An even stronger limitation of cross-sectional designs is the possibility that all effects are inflated or even artificially made due to the individual subjective reasoning and search for consistency in answering the questionnaire. Harman's test showed this is not a matter of concern but still, cross-sectional designs are less robust than a longitudinal or time lagged design.

5.2. Future research

Firstly, research limitations point to the need for this study to use of larger and randomly generated samples that will not affect the accuracy of the results, which means that future research could be conducted longitudinally by collecting samples over a certain period of time, focusing on the impact of non-material resources on hospital reputation at a defined period of time rather than at the same time; it could thus be conducted with a random sample of healthcare practitioners from across China to ensure randomness of the sample and to obtain more convincing conclusions.

Secondly, despite the policy support, the differences in material and non-material resources between different levels of hospitals are still not negligible. Future research could explore the impact of mission drivers on individuals' choices, depending on the differences in material and non-material resources faced by medical workers in regions, such as remote rural areas and developed regions.

Thirdly, the sample sources for this study were broadly divided into doctors, nurses and administrative workers but future research could examine different functions of healthcare workers, such as the different perceptions of employees in different departments, such as medicine, surgery,

imaging and testing, regarding the image of their employers and the differences in the proportion of material and non-material resources required. It would also be promising to target single healthcare occupations only samples, e.g. only doctors, only nurses, only administrative workers or healthcare managers as they sense of occupational mission may vary. Of course, the material reviewed in this study is limited and does not mention the impact that employer leadership (as a type of non-material resource) has on employer attractiveness, and future research could focus on non-material resources in leadership and more general directions.

Finally, the study is relevant for healthcare industry, but the applicability of the findings to other sectors needs to be ascertained and this provides a venue for future research for example to study other mission-driven professionals such as teachers, policemen, or firemen.

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Appendix A - Questionnaire

* 下面是有关医疗流程质量的描述，请选择与个人实际情况相符合的程度（1为完全不符合，2为不符合，3为有点不符合，4为中立，5为有点符合，6为符合，7为完全符合）：

	完全不符合	不符合	有点不符合	中立	有点符合	符合	完全符合
1. 整个医疗流程具有良好的反馈系统和管理。	☐	☐	☐	☐	☐	☐	☐
2. 整个医疗流程中，患者的问题可以便捷的得到解答。	☐	☐	☐	☐	☐	☐	☐
3. 整个医疗流程可以在短时间内完成。	☐	☐	☐	☐	☐	☐	☐
4. 整个医疗流程都有完整的医疗操作记录。	☐	☐	☐	☐	☐	☐	☐
5. 整个医疗流程能够正确完成开具的医疗项目。	☐	☐	☐	☐	☐	☐	☐
6. 整个医疗流程没有错误。	☐	☐	☐	☐	☐	☐	☐
7. 整个医疗流程可以兑现对患者的承诺。	☐	☐	☐	☐	☐	☐	☐
8. 整个医疗流程具有良好的安全机制。	☐	☐	☐	☐	☐	☐	☐
9. 整个医疗流程是被患者信赖的。	☐	☐	☐	☐	☐	☐	☐

* 下面是有关医院声誉的描述，想象一下，一个正在找工作的年轻有为的医生/护士，听到您所在医院的名字，您认为这位年轻的医生/护士会如何感觉并看待这家医院？（1为非常不同意，2为不同意，3为稍微不同意，4为中立，5为稍微同意，6为同意，7为非常同意）：

	非常不同意	不同意	稍微不同意	中立	稍微同意	同意	非常同意
1.在我看来，一个年轻有为的医生/护士会对在这家医院工作有良好的感觉。	☐	☐	☐	☐	☐	☐	☐
2.在我看来，一个年轻有为的医生/护士会信任这家医院。	☐	☐	☐	☐	☐	☐	☐
3.在我看来，一个年轻有为的医生/护士会钦佩和尊重这家医院。	☐	☐	☐	☐	☐	☐	☐
4.在我看来，一个年轻有为的医生/护士会认为这家医院有良好的整体声誉。	☐	☐	☐	☐	☐	☐	☐

* 下面是有关您所在医院的医院吸引力的描述，请选择与个人实际情况相符合的程度（1为完全不符合，2为不符合，3为有点不符合，4为中立，5为有点符合，6为符合，7为完全符合）：

	完全不符合	不符合	有点不符合	中立	有点符合	符合	完全符合
1.在我看来，对于一个年轻有为的医生/护士，这家医院是一个工作的好地方。	☐	☐	☐	☐	☐	☐	☐
2.在我看来，对于一个年轻有为的医生/护士，这家医院作为就业场所是具备吸引力的。	☐	☐	☐	☐	☐	☐	☐
3.在我看来，对于一个年轻有为的医生/护士，这家医院的工作是非常有吸引力的。	☐	☐	☐	☐	☐	☐	☐

* 下面是有关您所在医院的医院品牌形象的描述，请选择与个人实际情况相符合的程度（1为非常不同意，2为不同意，3为稍微不同意，4为中立，5为稍微同意，6为同意，7为非常同意）：

	非常不同意	不同意	稍微不同意	中立	稍微同意	同意	非常同意
1.这家医院提供良好的奖励。	☐	☐	☐	☐	☐	☐	☐
2.这家医院提供升职的机会。	☐	☐	☐	☐	☐	☐	☐
3.这家医院位于优越的位置。	☐	☐	☐	☐	☐	☐	☐
4.这家医院提供学习机会。	☐	☐	☐	☐	☐	☐	☐
5.这家医院提供维持人际网络的机会。	☐	☐	☐	☐	☐	☐	☐

* 下面是有关社会人口学特征的描述，请选择与个人实际情况相符合的选项

1.您的年龄是？

- ☐ A.18-24岁
- ☐ B.25-34岁
- ☐ C.35-44岁
- ☐ D.45-54岁
- ☐ E.55及以上

* 2.您的性别是？

- ☐ A.男
- ☐ B.女

* 3.您的职业是？【Multiple】

- ☐ A.医生
- ☐ B.护士
- ☐ C.行政人员
- ☐ D.其它

* 4.您的受教育程度是？

- ☐ A.高中同等学历
- ☒ B.本科或同等学历
- ☐ C.硕士
- ☐ D.博士

* 5.您所在医院的级别是？

- ☐ A.一级
- ☐ B.二级
- ☐ C.三级
- ☐ D.其它

* 6.您在所在医院的工作年限是多少年？（如果少于1年，请写0）

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Appendix B - Run MATRIX procedure

Run MATRIX procedure:

```
***** PROCESS Procedure for SPSS Version 3.5 *****

Written by Andrew F. Hayes, Ph.D.      www.afhayes.com
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

*****

Model : 7
  Y : EAttract
  X : IEImg
  M : HospRep
  W : SQ_9it

Covariates:
  age      gender  profess  edu      Hpttier  orgtenur

Sample
Size: 415

*****
OUTCOME VARIABLE:
  HospRep

Model Summary

      R      R-sq      MSE      F      df1      df2      p
,3268    ,1068    1,2908    5,3807    9,0000    405,0000    ,0000

Model

      coeff      se      t      p      LLCI      ULCI
constant    6,3310    ,5432    11,6558    ,0000    5,2632    7,3988
IEImg        ,0933    ,0454     2,0578    ,0402     ,0042     ,1825
SQ_9it       ,1507    ,0489     3,0833    ,0022     ,0546     ,2468
Int_1        ,1091    ,0381     2,8617    ,0044     ,0342     ,1841
age         -,2117    ,0828    -2,5577    ,0109    -,3743    -,0490
gender      -,0742    ,1162     -,6381    ,5238    -,3026     ,1543
profess      ,0613    ,0677     ,9065    ,3652    -,0717     ,1944
edu         -,4597    ,1488    -3,0897    ,0021    -,7522    -,1672
Hpttier      ,1207    ,0888     1,3598    ,1747    -,0538     ,2952
orgtenur     ,0288    ,0157     1,8333    ,0675    -,0021     ,0597

Product terms key:
Int_1      :      IEImg      x      SQ_9it

Test(s) of highest order unconditional interaction(s):

      R2-chng      F      df1      df2      p
X*W      ,0181     8,1891     1,0000    405,0000    ,0044
-----
      Focal predict: IEImg      (X)
      Mod var: SQ_9it      (W)

Conditional effects of the focal predictor at values of the moderator(s):

      SQ_9it      Effect      se      t      p      LLCI      ULCI
-1,1725    -,0346    ,0625    -,5546    ,5795    -,1574    ,0882
,0000      ,0933    ,0454     2,0578    ,0402     ,0042     ,1825
1,1725     ,2213    ,0649     3,4100    ,0007     ,0937     ,3489

Moderator value(s) defining Johnson-Neyman significance region(s):
      Value      % below      % above
-3,1185      3,8554     96,1446
-,0388      40,7229     59,2771

Conditional effect of focal predictor at values of the moderator:

      SQ_9it      Effect      se      t      p      LLCI      ULCI
-4,0624    -,3501    ,1598    -2,1910    ,0290    -,6641    -,0360
-3,7790    -,3191    ,1494    -2,1355    ,0333    -,6129    -,0254
-3,4957    -,2882    ,1392    -2,0707    ,0390    -,5618    -,0146
-3,2124    -,2573    ,1290    -1,9943    ,0468    -,5109    -,0037
-3,1185    -,2470    ,1257    -1,9658    ,0500    -,4941     ,0000
-2,9290    -,2264    ,1190    -1,9029    ,0578    -,4602     ,0075
-2,6457    -,1954    ,1090    -1,7923    ,0738    -,4098     ,0189
-2,3624    -,1645    ,0993    -1,6565    ,0984    -,3597     ,0307
-2,0790    -,1336    ,0898    -1,4870    ,1378    -,3102     ,0430
-1,7957    -,1027    ,0807    -1,2723    ,2040    -,2613     ,0560
-1,5124    -,0717    ,0720    -,9963    ,3197    -,2133     ,0698
-1,2290    -,0408    ,0640    -,6380    ,5238    -,1666     ,0849
-,9457     -,0099    ,0569    -,1739    ,8620    -,1217     ,1019
-,6624     ,0210    ,0511     ,4119    ,6806    -,0794     ,1214
-,3790     ,0520    ,0471     1,1038    ,2703    -,0406     ,1445
-,0957     ,0829    ,0454     1,8272    ,0684    -,0063     ,1721
-,0388     ,0891    ,0453     1,9658    ,0500     ,0000     ,1782
,1876     ,1138    ,0462     2,4642    ,0141     ,0230     ,2046
```

,4710	,1447	,0494	2,9289	,0036	,0476	,2419
,7543	,1757	,0546	3,2154	,0014	,0683	,2831
1,0376	,2066	,0613	3,3688	,0008	,0860	,3271
1,3210	,2375	,0691	3,4389	,0006	,1017	,3733
1,6043	,2684	,0775	3,4617	,0006	,1160	,4209

Data for visualizing the conditional effect of the focal predictor:
 Paste text below into a SPSS syntax window and execute to produce plot.

```

DATA LIST FREE/
  IEImg SQ_9it HospRep .
BEGIN DATA.
  -1,2592 -1,1725 5,1306
  ,0000 -1,1725 5,0870
  1,2592 -1,1725 5,0434
  -1,2592 ,0000 5,1462
  ,0000 ,0000 5,2637
  1,2592 ,0000 5,3813
  -1,2592 1,1725 5,1618
  ,0000 1,1725 5,4405
  1,2592 1,1725 5,7191
END DATA.
GRAPH/SCATTERPLOT=
  IEImg WITH HospRep BY SQ_9it .

*****
OUTCOME VARIABLE:
  EAttract

Model Summary
      R      R-sq      MSE      F      df1      df2      p
,1688      ,0285      2,8228      1,4880      8,0000      406,0000      ,1595

Model
      coeff      se      t      p      LLCI      ULCI
constant      4,1331      ,9223      4,4811      ,0000      2,3199      5,9463
IEImg          ,0114      ,0668      ,1704      ,8648      -,1199      ,1427
HospRep        ,1605      ,0716      2,2408      ,0256      ,0197      ,3013
age            -,1853      ,1233      -1,5022      ,1338      -,4277      ,0572
gender         -,0329      ,1719      -,1915      ,8482      -,3708      ,3050
profess        ,0853      ,1002      ,8519      ,3948      -,1116      ,2822
edu            -,0205      ,2222      -,0921      ,9266      -,4572      ,4162
Hpttier        ,0352      ,1313      ,2683      ,7886      -,2229      ,2934
orgtenur       ,0451      ,0233      1,9356      ,0536      -,0007      ,0910

Test(s) of X by M interaction:
      F      df1      df2      p
,0005      1,0000      405,0000      ,9815

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y
      Effect      se      t      p      LLCI      ULCI
,0114      ,0668      ,1704      ,8648      -,1199      ,1427

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
  IEImg -> HospRep -> EAttract

      SQ_9it      Effect      BootSE      BootLLCI      BootULCI
-1,1725      -,0056      ,0109      -,0305      ,0149
,0000      ,0150      ,0119      -,0007      ,0456
1,1725      ,0355      ,0225      ,0019      ,0897

Index of moderated mediation:
      Index      BootSE      BootLLCI      BootULCI
SQ_9it      ,0175      ,0112      ,0008      ,0439
---
```

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:
 95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
 5000

W values in conditional tables are the mean and +/- SD from the mean.

NOTE: The following variables were mean centered prior to analysis:
 SQ_9it IEImg

NOTE: Standardized coefficients not available for models with moderators.

----- END MATRIX -----