Empirical analysis of HPO framework in public sector organizations of Pakistan

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Abstract

Purpose – Building on high-performance organizations (HPO) framework, the purpose of this paper is to hypothesize the direct impact of five factors of HPO framework on public organizations’ performance in Pakistan. This is first research to employ the partial least squares (PLS) method to provide empirical evidence of the predictive power of the framework in public organizations.

Design/methodology/approach – This is a cross-sectional study conducted in non-contrived settings thereby keeping researcher interference to a minimum. Data collection was carried out by distributing online questionnaires to 513 employees from three different service-based public organizations in Pakistan. PLS is used to examine the statistical and substantive significance of five factors by employing SmartPLS 3.2.6.

Findings – This study concludes that the HPO framework has predictive relevance for public organizations’ performance surveyed in this study. Furthermore, three out of the five factors of HPO framework, namely, management quality, workforce quality and long-term orientation have positive relationships, while openness and action orientation (OAO), and continuous improvement process and renewal have a negative relationship with the performance of public sector organizations (PSOs) surveyed in Pakistan.

Research limitations/implications – The study’s small sample size limits this research, and only quantitative methodology is applied. A significant limitation of this research is that this study relied on a subset of respondents of surveyed organizations and may not representative of the population. Therefore, result should be carefully interpreted as some degree of biasness may be present. Furthermore, findings of the study cannot be generalized to all PSOs of Pakistan.

Practical implications – The implication for public managers is that the HPO framework has predictive relevance and substantive significance. However, the ideal value of HPO framework will occur when leadership considers HPO factors and struggles persistently to improve performance. The useful implication is that public managers should focus on continuous improvement process and renewal and OAO to meet stakeholders’ satisfaction.

Originality/value – This study answer two questions, first “is there any significant relationship of five factors of HPO framework with public organizations’ Performance in Pakistan?” and second “what is the predictive relevance level of HPO framework in the Public organizations in Pakistan?” The answers to these research questions will fill the gaps in the literature by providing empirical evidence to the existing knowledge on improvement methods, especially the public sector (PS), and contributing insights on the real world working of the five factors of HPO framework in a PS.

Keywords Pakistan, Public sector, HPO framework, High-performance organizations, Organizational performance

Paper type Research paper

1. Introduction
The public sector (PS) in Pakistan is facing severe problems in performance management in a dynamic, privatized, liberalized and globalized environment. Public sector organizations (PSOs) are working hard to find a sustainable way to provide the best services to the public
(De Waal, 2010; Blackman et al., 2012). Also, fast-paced environmental changes challenge consistency and efficiency of existing models and frameworks of performance management (Wu and Jung, 2016; Fontannaz and Oosthuizen, 2007; Moynihan, 2006).

In pursuit of factors that transform organizations into high-performing organizations (HPOs), De Waal (2010) proposed a HPO framework and asserted that if organizations, whether public or private, applied this framework they would successfully turn into HPOs (Honyenuga et al., 2014; De Waal et al., 2009). Although much research has been conducted on the HPO framework (De Waal, 2010) in developed countries, empirical research on the factors transforming organizations into HPOs seems to be limited in the context of PSOs in developing countries. PSOs of Pakistan are not exceptional in this regard. PSOs of Pakistan are facing severe issues in the area of performance management and also in providing value to the public in the dynamic environment of privatization, liberalization as well as globalization. PSOs in Pakistan come across with many new problems and challenges such as corruption, law and order, security, political instability, technology and lack of managerial competences (Zeb et al., 2015; Nasir and Bashir, 2012; Bashir et al., 2011; Abbasi, 2011). Despite these challenges, PSOs are expected to increase performance to meet citizen expectations.

1.1 Pakistan’s public sector organizations’ performance

PSOs in Pakistan are challenged by severe problems of rendering admirable services to citizens. The public is frustrated by the poor service delivery and performance of the PSOs (Bashir et al., 2011). PSOs’ performance reflects an alarming situation, since the past decade has witnessed the privatization of a number of PSO including the Pakistan Telecommunication Limited, government transport services and banks because of stakeholders’ dissatisfaction with their overall performance of poor service delivery.

PSOs’ sustainability is at stake in Pakistan given the losses of Pakistan International Airlines, Pakistan Post Office (PPO), Pakistan Steel Mills, Pakistan Electric Power Company, Pakistan Railways, National Highway Authority, Pakistan Agriculture Storage and Services Corporation and the Utility Stores Corporation amounted to 1,500bn rupees (Federal Footprint State Owned Entities Performance Review Fiscal year, 2014–2015). The result of PSOs poor quality service delivery has been summarized in the annual report of the Office of the Ombudsman, which classifies citizen complaints into the following:

- in total, 53 percent of the complaints were about negligence, deferment, inefficiency and incompetence;
- 30 percent of complaints involved administrative excesses, discriminatory, partial, arbitrary, unfair and partial decisions; and
- 17 percent complaints were about unethical practices.

While dissatisfaction with the performance of Pakistan’s PSOs has focused attention on the role of privatization in improving public sector performance, privatization does not seem to be the most viable option (Hanif et al., 2016; Kalim and Arshad, 2018). Given the importance of this issue, this paper proposes the adoption of high-performance management practices to transform Pakistani PSOs into high-performance public organizations. Specifically, this article examines the predictive relevance and statistical significance of the five factors of De Waal’s (2010) HPO framework concentrating on Pakistan as a developing country. The HPO framework identifies the factors that organizations need to focus on to become HPOs (De Waal, 2012b, 2015). The application of HPO framework would indeed be helpful as a performance improvement technique to focus on specific factors to become high-performing
public organizations in Pakistan. To achieve this, following research questions guide this study as:

RQ1. Is there any significant relationship of five factors of HPO framework with public organizations’ performance in Pakistan?

RQ2. What is the level of predictive relevance of HPO framework in the context of public organizations in Pakistan?

2. Literature review
The shift from performance to high performance has raised the debate in the current literature about the suitability of models measuring high performance in public organizations (Berman and West, 2012; De Waal, 2010; Kaliprasad, 2006; Abdel-Maksoud et al., 2005; Klitgaard, 2005; Nilsson and Kald, 2002). In the past, the debate of high performance in the public organization was ignored because the high performance of the private sector is easier to understand than in the PS because of its multidimensional nature which made it difficult to measure (Blackman et al., 2012; Adhikari et al., 2012; Whitford et al., 2010; De Waal, 2010; Alford and Hughes, 2008; Cole and Parston, 2006).

However, a growing body of literature on high performance concludes that several of HPOs’ features are related to the performance of PS employees and their outcomes (Blackman et al., 2012; Angelim and Guimarães, 2005). In a recent study about the performance of Austrian public service, Blackman et al. (2012) describe a government of high performance at three levels as: high-performance governance system, HPO and high-performance groups and individuals. According to them, a high-performing PS is the one which produces high-quality services for the public. In the past few decades, improving performance practices of public organization has turn out to be a crucial subject in the public administration theory (Andrews and Van de Walle, 2013; Meier and Hicklin, 2007; Boyne et al., 2005; Selden and Sowa, 2004).

While the specific concept of organizational performance stresses primarily on the issues related to efficiency and effectiveness, a broader view not only includes efficiency and effectiveness, but also responsiveness, stakeholders’ satisfactions and the use of the best performance management system. Many performance management models have been proposed in the past few years; however, De Waal produced the HPO framework based on five years of meta-analysis on the high performance and extensive studies of global organizations. De Waal’s (2010, 2012a, b) five-factor and 35-character HPO framework is a proven structure conceptually and scientifically that can improve organizational performance and ensure its sustainability. The five factors are: management quality (MQ), employee quality, long-term orientation (LTO), continuous improvement and openness and action orientation (OAO). The first two factors relate to the quality of the people, including management and employees, while the other three factors explain their attitude toward work and goals. The following sections discuss the HPO framework, in detail, as the theoretical framework for current research.

3. Theoretical framework: HPO framework and hypothesis
This paper examines the five factors of HPO framework with the relationship of PSOs’ performance in Pakistan. Each factor has been explained alongside the relevant hypothesis of the current study (see the Appendix for factors and its measures).

3.1 Management quality (MQ)
De Waal (2012a, b) identified 11 items to measure MQ in organizations. He defined MQ as keeping a trustworthy relationship with employees of all levels, respecting workers’ loyalty,
realizing employees’ abilities, treating workers with a high level of respect, making and sustaining individual connections with employees, inspiring trust and believing in others as well as fair treatment with all. Furthermore, management is influential and focused on actions, and in that way, management gives no room to non-performers and makes people responsible for their results. These 11 items are used in this current study. Consistent with previous research, we expect:

\[ H1. \] MQ has a significant positive relationship with organizational performance.

3.2 Workforce quality (WQ)
De Waal (2010) identified four items to measure WQ in organizations. These items, “Management always holds organizational members responsible for their results, Management inspires organizational members to accomplish extraordinary results, the resilience and flexibility of organizational members is continuously strengthened, the organization has a diverse and complementary workforce.” Consistent with studies in other organizations, we expect that:

\[ H2. \] WQ positively leads to a significant relationship with organizational performance.

3.3 Long-term orientation (LTO)
This feature of HPO framework highlights the establishment of strategic relationships with stakeholders, including staffs, contractors, clients and society as a whole. HPOs not only continuously develop their employees but also select new leaders from within organizations while providing a secure workplace environment (De Waal, 2010). Besides, HPOs encourage new ways of doing things and focus on citizen and clients’ satisfaction through their involvement and developing collaborative network (Prahalad and Krishman, 2008). De Waal (2010) identified six items to measure (LTO) dimension of HPO framework. The same items adapted in this study are “Our organization grows through partnerships with suppliers and customers, Our organization maintains good and long-term relationships with all stakeholders; Our organization is aimed at servicing the customers as best as possible, The management of our organization has been with the company for a long time, New management is promoted from within the organization, Our organization is a secure workplace for organizational members.” Therefore, this study derives the third hypothesis, which states that:

\[ H3. \] LTO leads to a significant positive relationship with organizational performance.

3.4 Openness and action orientation (OAO)
According to De Waal (2012a, b), in HPOs, management spends time communicating and exchanging knowledge, respecting employees’ opinions, and allowing risks, experiments and mistakes are considered opportunity for learning. De Waal (2010) proposed the following six items for operationalization of this dimension in organizations. Items identified are “Management frequently engages in a dialog with employees, Organizational members spend much time on dialog, knowledge exchange and learning, Organizational members are always involved in important processes, Management allows making mistakes, Management welcomes change, The organization is performance driven.” This study has employed the same items and consistent with past research, we expect that:

\[ H4. \] OAO leads to a positive relationship with organizational performance.

3.5 Continuous improvement and renewal (CIR)
According to De Waal (2010), HPOs continuously struggle to modernize their basic capabilities by retaining the organization’s fundamental competencies and subcontracting
non-core competencies. He proposed eight items to measure this dimension of HPO framework. The eight items are “The organization has adopted a strategy that sets it clearly apart from other organizations; In the organization processes are continuously improved, In the organization processes are continuously simplified; In the organization processes are continuously aligned; In the organization everything that matters to performance is explicitly reported; In the organization relevant financial and non-financial information is reported to all organizational members; The organization continuously innovates its core competencies; The organization continuously innovates its products, processes, and services.” The same items are adapted in the current study to measure this dimension of HPO framework in public organizations of Pakistan. Therefore, the fifth hypothesis of this study states that:

\[ H5. \text{ CIR has a significant positive relationship with organizational performance.} \]

3.6 Organizational performance
The index used for measuring organizational performance were adapted from prior studies encompasses six items (Pitts, 2009; Choi and Rainey, 2010). The items are “I am satisfied with the overall performance of the organization; Organization has been able to provide the services to the public as per their expectation; The quality of services provided by the organization is close to the ideal quality; Managers set high-performance expectations for employees, individual performance appraisal holds people accountable for their performance, and we use performance measurement in our program management.” Figure 1 illustrate five factors of HPO framework with indicators and its relationship with PSOs’ performance in Pakistan.

4. Research methodology
4.1 Data collection method
The structure questionnaire of HPO framework by De Waal (2010) was used as a method of data collection. Online data collection method was used through Google Forms.

**Figure 1.**
Five factors of HPO framework and its indicators with the relationship of public organizations' performance in Pakistan.

**Notes:** MQ, management quality; OA, openness and action orientation; LTO, long-term orientation; CI, continuous improvement and renewal; WQ, workforce quality; OP, organization performance.
Google Forms are a fast way to create an online survey through the personal Gmail account, with responses collected in an online spreadsheet. The first section of Google Form was composed of demographic questions such as gender, education, age experience and grade, and the second section was composed of measures of five factors of HPO framework and organizations’ performance. The online link of Google Form was shared with the human resource departments of sampled organizations for online responses from respondents. A total of 8,421 employees of grades 11th–18th are employed by the studied organizations (see Section 4.2 for detail). In this study, 1,093 employees were contacted randomly (through sharing online links) by the human resource departments of the respective organizations. Out of 1,093, 473 employees were contacted in PPO, 367 in Water and Power Development Authority (WAPDA) and 253 in Central Directorate of National Savings (CDNS). Responses received from PPO, WAPDA and CDNS were 198, 179 and 136, respectively, which make a total of 513 responses. Data collection was carried out over a period of 40 days with one more reminder by the human resource departments of the organizations from December 5, 2017 to January 20, 2018. All responses were received online in the researcher’s personal Google account which helped the researcher to ensure anonymity and confidentiality of data. This makes a response rate of 46.93 percent. Since all the questions must be answered as required in the online questionnaire form, there was no incomplete responses and missing data as online survey submission require individuals to complete the survey for submission. However, Google Forms do not allow to identify questionnaires that were started but not completed and therefore, only complete responses were received. Furthermore, Table I shows the sample characteristics of the study respondents.

4.2 Sampling technique and target respondents with sample size
A judgmental sampling method of non-probability sampling approach was applied in the current research. According to Sekaran by using purposive or judgmental sampling, the researcher used his judgment and selected subjects to collect the required information.

<table>
<thead>
<tr>
<th>Section</th>
<th>Number of employees</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>382</td>
<td>74.5</td>
</tr>
<tr>
<td>Female</td>
<td>131</td>
<td>25.5</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master</td>
<td>172</td>
<td>33.5</td>
</tr>
<tr>
<td>Bachelor</td>
<td>287</td>
<td>55.9</td>
</tr>
<tr>
<td>12th grade</td>
<td>54</td>
<td>10.5</td>
</tr>
<tr>
<td><strong>Experience (years)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–5</td>
<td>97</td>
<td>18.9</td>
</tr>
<tr>
<td>6–10</td>
<td>190</td>
<td>37</td>
</tr>
<tr>
<td>11 and above</td>
<td>226</td>
<td>44.1</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21–30</td>
<td>67</td>
<td>31.2</td>
</tr>
<tr>
<td>31–40</td>
<td>85</td>
<td>16.6</td>
</tr>
<tr>
<td>41–50</td>
<td>219</td>
<td>42.7</td>
</tr>
<tr>
<td>Above 51</td>
<td>142</td>
<td>27.7</td>
</tr>
<tr>
<td><strong>Grade level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11th–14th</td>
<td>179</td>
<td>34.9</td>
</tr>
<tr>
<td>15th–18th</td>
<td>334</td>
<td>65.1</td>
</tr>
</tbody>
</table>

Table I. Respondents' profile
Therefore, to use judgmental sampling, a list of employees working in grades between 11th and 18th in the PPO, WAPDA, and CDNS were targeted by sharing Google Forms through the human resource departments of organizations. Public servants in Pakistan from grades 1 to 10th cover lower level, from grade 11th to 18th covering officers’ level and from grade 19 to 22 cover the top management of the organizations. The reason for selecting aforementioned grade employees are their level of work and the questionnaire’s understandability in the English language to give the exact assessment of their organizations. The top management was not targeted because of the possibility of favoring their organization with high ratings. The justification that led this study to select PPO, WAPDA and CDNS are the number of public complaints against these organizations.

4.3 Instrumentation and operationalization
The questionnaire for five factors of HPO framework by De Waal’s (2010) is used in this study. According to De Waal, HPO framework has total 35 items with overall Cronbach’s α reliability value of 0.967. According to him, 11 items refer to MQ with Cronbach’s α reliability values 0.963, four items refer to WQ with Cronbach’s α value of 0.855, six items refer to LTO with Cronbach’s α reliability value of 0.818, eight items refer to continuous improvement process and renewal with Cronbach’s α value of 0.908, six items refer to OAO with Cronbach’s α value of 0.944. The index for organizational performance consists of six items. These items were derived from previous studies (Pitts, 2009; Choi and Rainey, 2010) with Cronbach’s α reliability value of 0.81. It is worth mentioning that all the variables are measured with a reflective measurement model by applying SmartPLS 3.2.6. The ten-point Likert scale of the range strongly disagree from “1” to “10” strongly agree was employed to operationalize the studied variables. The ten-point scale is an effective and appropriate measure because many previous research works used ten-point scales to measure exogenous and endogenous variables (Honyenuga et al., 2014; Abascal et al., 2013).

4.4 Common method variance
Single-factor variance more than 50 percent lead to the existence of common method variance or if the variance considered by a single factor is higher than 50 percent, then a common method bias is considered to exist. This is achieved by inputting all constructs into the principal component factor analysis, which applies unrotated factor analysis. In this research, Harmon’s single-factor test was used to observe the existence of CMV (MacKenzie and Podsakoff, 2012). This test result indicates a restrictive extraction that a single factor only explains the variance of 17.395 percent, which means that the data has no CMV problem.

4.5 Descriptive statistics
Descriptive statistics in the form of mean values are calculated to provide an overview of the respondents’ rating of five factors. The average scores for MQ, QF, LTO, CI, OA and OP are 4.9615, 5.7110, 5.3887, 4.7567, 3.4363, and 3.7628, respectively.

5. Data analysis
To test hypotheses of the study, partial least squares (PLS) algorithm of structural equation modeling (SEM) was applied. The software Smart PLS 3.2.6 was used to evaluate measurement and structure models at the same time. It is worth to mention that the current study used bootstrapping method (5,000 resamples) to decide the significance levels of path coefficients, factors loadings and weights by following instructions of Hair et al. (2014).
5.1 Measurement model

For PLS analysis, the validity and reliability of the measurement model need to be analyzed. The objective is to find out the validity of the construct. The process ensures the measurement of constructs by applying convergent and discriminant validity. Convergent validity makes sure that several items of the same construct are agreed upon (Hair et al., 2014). As suggested by Hair et al. (2014, 2017), this study fixed the minimum threshold values of factor loadings at 0.5, composite reliability (CR) value greater than 0.7 and the average variance extracted (AVE) value greater than 0.5 (see Table II).

After confirming convergent validity, this study assessed discriminant validity. To determine whether discriminant validity was established, the researchers used the HTMT criterion to assess the discriminant validity.

According to Henseler et al. (2015), using HTMT, two approaches can be used to assess discriminant validity: as a criterion and as a statistical test called HTMT inference. Based on criterion methods, prior research works have proposed two HTMT values of 0.85 and 0.9. By statistical test (HTMT inference), HTMT confidence interval can be used to test the null hypothesis ($H_0$: HTMT > 1) and the alternative hypothesis ($H_1$: HTMT < 1). Following Henseler et al. (2015), if the value of confidence interval is 1 or greater, then there is lack of discriminant validity. The results of HTMT as a criterion method can be seen in Table III, which shows that the highest value is 0.598 which possessed the acceptable level. HTMT inference, which indicated a value less than 1 in all of the constructs, also did not indicate a discriminant validity problem in the analysis. Thus, it is confirmed that measurement for each of the constructs in the present study was valid as

<table>
<thead>
<tr>
<th>Construct</th>
<th>Measurement item</th>
<th>Loading items</th>
<th>Dropped</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management quality</td>
<td>MQ7</td>
<td>0.854</td>
<td>7</td>
<td>0.908</td>
<td>0.711</td>
</tr>
<tr>
<td></td>
<td>MQ8</td>
<td>0.835</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MQ9</td>
<td>0.850</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>MQ10</td>
<td>0.834</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workforce quality</td>
<td>WQ1</td>
<td>0.685</td>
<td>None</td>
<td>0.851</td>
<td>0.592</td>
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<tr>
<td></td>
<td>WQ2</td>
<td>0.784</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>WQ3</td>
<td>0.848</td>
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<td></td>
<td>WQ4</td>
<td>0.644</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Openness and action orientation</td>
<td>OA1</td>
<td>0.872</td>
<td>None</td>
<td>0.954</td>
<td>0.804</td>
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<tr>
<td></td>
<td>OA2</td>
<td>0.864</td>
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<tr>
<td></td>
<td>OA3</td>
<td>0.864</td>
<td></td>
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<tr>
<td></td>
<td>OA4</td>
<td>0.795</td>
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<tr>
<td></td>
<td>OA5</td>
<td>0.810</td>
<td></td>
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<tr>
<td></td>
<td>OA6</td>
<td>0.877</td>
<td></td>
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<td></td>
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<tr>
<td>Continuous improvement</td>
<td>CI1</td>
<td>0.904</td>
<td>6</td>
<td>0.939</td>
<td>0.718</td>
</tr>
<tr>
<td></td>
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<td>0.551</td>
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<tr>
<td>Long-term orientation</td>
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<td>1</td>
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<tr>
<td></td>
<td>LTO2</td>
<td>0.887</td>
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<td></td>
<td>LTO3</td>
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<td>LTO4</td>
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<td></td>
<td>LTO5</td>
<td>0.898</td>
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<tr>
<td>Organization performance</td>
<td>OP2</td>
<td>0.924</td>
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<td>0.960</td>
<td>-0.828</td>
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<tr>
<td></td>
<td>OP3</td>
<td>0.916</td>
<td></td>
<td></td>
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<td></td>
<td>OP4</td>
<td>0.896</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OP5</td>
<td>0.905</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>OP6</td>
<td>0.909</td>
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</table>

Table II.
Results of measurements model (convergent validity)

Notes: AVE, average variance extracted; CR, composite reliability. Cut of values: FL > 0.5, CR > 0.6, AVE > 0.5
no collinearity (vertical) issue took place. However, the results of this study produced 21 characteristics, which are different than the original 35 characteristics (see the Appendix). A total of 14 items of HPO framework and one item of organizational performance were dropped because of low factor loadings. The seven items dropped from MQ were “MQ1, MQ2, MQ3, MQ4, MQ5, MQ6, and MQ11,” six items dropped from continuous improvement process were “CI2, CI3, CI4, CI5, CI7, and CI8,” likewise one item “LTO6” was dropped from LTO and one item “OP1” was dropped from organizational performance. Since the 35 characteristics of HPO framework were based on the data collected from 50 countries, including profits, non-profit organizations and government organizations, this study used the five factors and the organizational performance measures derived from PSOs in Pakistan (see Table II).

After testing the measurement model, this study continued to check model fit through two standards of model fit: the first was the standardized root mean square residual (SRMR) with a value less than 0.08, and the second was the normed fit index (NFI) with a value above 0.9 indicate a standard fit (Hu and Bentler, 1998). In the current research study, the SRMR and NFI values are 0.06 (< 0.08), NFI 0.92 (> 0.90) respectively, showing a good agreement with the model data. Therefore, through confirmatory factor analysis, the findings of this study show that five factors of HPO framework are valid. However, in this study, 21 items were associated with the HPO framework proposed by de Waal.

5.2 Structural equation modeling

The first step in evaluating the structural model is to evaluate the level of collinearity between each set of predictors of the structural model. According to Hair et al. (2014, 2017), a variance inflation factor (VIF) with value 5 or more than 5 showing existence of collinearity. VIF results of this study are well below the value of 5.0. The results of the VIF can be seen in Table IV, depicting that the collinearity between the predicted structures is not a problem. In order to test the five factors of the HPO framework’s predictive power, the $R^2$ value was evaluated. The $R^2$ shows the variance produced by exogenous variables (Hair et al., 2014; Thompson et al., 1995). The five exogenous variables together accounted for a 27 percent change. For the hypothetical relationship, the 5,000-sample resampling guidance method is used to calculate the path estimate, $t$-statistic. Figure 2 shows the result of the structural model.

This study then used path analysis to test the five hypotheses based on findings from previous studies. The result of the $R^2$ value was found to be 0.275 indicating that 27.5 percent of the variance is explained by exogenous variables in the performance level of PSOs in Pakistan. Table IV presents the results of this analysis. The results suggest that MQ is associated with a positive relationship ($b = 0.577$, $t$-value = 2.066) with organizational performance. WQ was also positively related with organizations’ performance ($b = 0.218$, $t$-value = 4.263) and so was LTO ($b = 0.0125$, $t$-value = 3.325). However, OAO ($b = -0.069$

<table>
<thead>
<tr>
<th>CI</th>
<th>LTO</th>
<th>MQ</th>
<th>OA</th>
<th>OP</th>
<th>WQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI</td>
<td>0.292</td>
<td>0.127</td>
<td>0.163</td>
<td>0.091</td>
<td>0.344</td>
</tr>
<tr>
<td>LTO</td>
<td>0.303</td>
<td>0.305</td>
<td>0.293</td>
<td>0.251</td>
<td>0.191</td>
</tr>
<tr>
<td>MQ</td>
<td>0.249</td>
<td>0.163</td>
<td>0.161</td>
<td>0.598</td>
<td>0.344</td>
</tr>
<tr>
<td>OA</td>
<td>0.127</td>
<td>0.091</td>
<td>0.091</td>
<td>0.191</td>
<td>0.344</td>
</tr>
<tr>
<td>OP</td>
<td>0.293</td>
<td>0.251</td>
<td>0.251</td>
<td>0.191</td>
<td>0.344</td>
</tr>
</tbody>
</table>

**Notes:** MQ, management quality; OA, openness and action orientation; LTO, long-term orientation; CI, continuous improvement and renewal; WQ, workforce quality; OP, organization performance
and $t$-value $= 1.620$) and continuous improvement process and renewal ($b = -0.403$, $t$-value $= 12.093$), were found to be negatively related with PSOs’ performance and therefore, $H4$ and $H5$ are not supported in this present study.

5.3 Effect size ($f^2$)

This research further assessed all the variables for their effect size. Sullivan and Feinn (2012) argued that statistical significance ($p$-value) and substantive significance both must be stated in the study results. Cohen (1988) gives a guide to the commonly used effect sizes of 0.02, 0.15, and 0.35 representing small, medium, and large effects, respectively. This study also assessed the effect size value of respective predictors on an endogenous variable. Table IV show results that continuous improvement process has medium effect ($f^2 = 0.220$) on organizational performance than LTO which is having a small effect ($f^2 = 0.029$).

Similarly, WQ has got a small effect ($f^2 = 0.047$). A small effect ($f^2 = 0.006$) for OAO was also observed on organization performance, and so is the case of MQ having a small effect ($f^2 = 0.007$). Results of the effect size of exogenous variables of the current study show small effect based on standard values by Cohen (1988).

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Relationship</th>
<th>Coefficient</th>
<th>$t$-value</th>
<th>Supported</th>
<th>VIF</th>
<th>$Q^2$</th>
<th>$f^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H1$</td>
<td>Management quality–Performance</td>
<td>0.057</td>
<td>2.066</td>
<td>Yes</td>
<td>1.111</td>
<td>0.211</td>
<td>0.007</td>
</tr>
<tr>
<td>$H2$</td>
<td>Workforce quality–Performance</td>
<td>0.218</td>
<td>4.263</td>
<td>Yes</td>
<td>1.413</td>
<td>0.047</td>
<td></td>
</tr>
<tr>
<td>$H3$</td>
<td>Long-term orientation–Performance</td>
<td>0.175</td>
<td>3.325</td>
<td>Yes</td>
<td>1.433</td>
<td>0.029</td>
<td></td>
</tr>
<tr>
<td>$H4$</td>
<td>Openness and action orientation–Performance</td>
<td>$-0.069$</td>
<td>1.620</td>
<td>No</td>
<td>1.060</td>
<td>0.006</td>
<td></td>
</tr>
<tr>
<td>$H5$</td>
<td>Continuous improvement–Performance</td>
<td>$-0.403$</td>
<td>12.093</td>
<td>No</td>
<td>1.018</td>
<td>0.220</td>
<td></td>
</tr>
</tbody>
</table>

Note: $Q^2$ value (0.211) shows the predictive relevance of organizations’ performance.

Table IV. Path coefficients and hypothesis testing

Figure 2. Structural model results of five factors of HPO framework and its indicators with the relationship of public organizations’ performance in Pakistan.
5.4 Predictive relevance ($Q^2$)

Hair et al. (2017) proposed that besides reporting the $R^2$ value, the $Q^2$ value also assesses the predictive validity of a model. $Q^2$ values greater than 0 indicate that the model has predictive relevance. Hair et al. (2017) suggested that $Q^2$ values of 0.02, 0.15, and 0.35 reflect small, medium, and large predictive relevance on endogenous variables, respectively. In the present study, the $Q^2$ value of organizational performance was 0.211 (Table IV) which is greater than 0. This suggests that the exogenous variables in this study have a predictive relevance to the endogenous variables.

6. Discussion

This research aimed to evaluate the relationship of five factors of HPO framework with the PSOs’ performance in Pakistan. The findings of this study support the first three hypotheses of the study, meaning that the MQ, WQ and LTO factors of HPO framework in Pakistani PSOs were found to be associated with the perceptions of organizational performance in the study organizations. This is in line with the assertion of Jamrog et al. (2008) that though the HPO framework does not necessarily guarantee high performance, organizations that adopt these characteristics stand a better chance of performing well. According to De Waal (2010), PSOs need to increase the overall quality to become high-performing public organizations. According to him, PSOs need to focus more on MQ and WQ with consideration of a long-term approach which is very well supported by the current research.

The findings indicate that the PSOs studies had a focus on MQ, WQ and LTO and further show that the two factors of the HPO framework that is continuous improvement process and OAO are the missing practices of public organizations in Pakistan which must be considered to meet stakeholders’ satisfaction.

What then are the reasons for the failure of the continuous improvement process and OAO to support the current study hypothesis? Do the systems in public organizations lack the flexibility to cope up with fast pace environmental changes? Is it about excessive bureaucracy in Pakistani public organizations?

The low level of OAO may be related to the Pakistani work environment where management dialogs with employees, communication, knowledge sharing, learning, lack of flexibility to accept changes are the missing practices.

The work environment in Pakistan is rigid, bureaucratic, status consciousness and coupled with employees’ desire to be in the favorite list of managers, therefore affecting staff members to hide their true feelings and be reluctant to question practices that derail their performance. This situation makes the PSOs’ work environment “management centric” rather than “performance centric.” This contrasts with management and employee interactions that are critical to organizational commitment and performance (Ng et al., 2006; Kohnen, 2012). This can also be a question of the high power distance (Hofstede, 1980), which makes it challenging for employees to share their ideas and who always wish instead to follow the directions because of fear of discrimination and for personal benefits from the higher-ups. Thus, the statement that “the boss is always right” is a good representation of Pakistani public organizations. According to Raziq (2012), the authoritarian and bureaucratic approach of managing public organizations in Pakistan is responsible for creating dark shadows where quality service delivery to citizens becomes less critical. This contrasts with the open culture proposed by de Waal’s HPO framework.

7. Conclusion and implications of the study

This study concludes that the HPO framework has predictive relevance for public organizations surveyed in Pakistan, although with some contextualization. These can be found in a number of HPO characteristics (21 instead of the original 35). Furthermore, three
out of the five factors of HPO framework, namely, MQ, WQ, and LTO have positive relationships, while OAO, and continuous improvement process and renewal have a negative relationship with the performance of PSOs studied in Pakistan. This paper aimed to contribute to the literature on the predictive relationship between the HPO framework and public organizations’ performance. Previous studies of the HPO framework focused on its applicability by calculating the only average score of five factors to know the status of HPO. This study has looked beyond this by studying predictive power of five factors of the HPO framework with the relationship of PSOs performance in Pakistan.

The contribution of this paper is twofold. One is to provide empirical evidence of the direct impact of five factors of the HPO framework with public organizations’ performance. Second, this paper has looked beyond by studying the predictive power of five factors of the HPO framework with the relationship of PSOs performance in Pakistan by applying the PLS method of SEM.

Apart from this, this paper serves as a guideline for the public managers of developing countries to generate new information and models of high performance to improve public organization’s performance. Given the findings of the study, the current research does not suggest that the HPO framework is a quick fix for PSOs in Pakistan. Instead, this study offers clues that the HPO framework can be a practical tool to diagnose the performance status of organizations and then to improve performance by focusing on specific improvement areas to reach these goals. Therefore, public managers should reinforce a high performance focus to cope with environmental changes by focusing on continuous improvement and openness in decision making.

Although the results from this study provide constructive insights into the dynamics of various constructs used in the study, several methodology limitations were also considered. A significant limitation of this research is that this study relied on a subset of respondents of surveyed organizations and may not representative of the population. Therefore, result should be carefully interpreted as some degree of biasness may still be present. Furthermore, findings of the study cannot be generalized to all PSOs of Pakistan. Another limitation of this research is that it was conducted with a small sample size and only a quantitative methodology is applied. Future researchers should use a larger sample size with a mixed-methods approach to explore the antecedents of missing practices of the HPO framework in public organizations of Pakistan. It could also be used to explore the critical success factors of continuous improvement and OAO of HPO in Pakistan. Future research can also assess whether there is a difference in the application of the HPO framework between Pakistani public organizations and private organizations. Future research may also capitalize on the use of mixed methods to further explore the methodological differences of the HPO framework applications in private and PS of Pakistan.

References


Further reading

Appendix. HPO framework assessment questionnaire
This appendix lists the 35 characteristics of the five HPO factors and 6 items of organization performance:

**HPO factor 1: Management quality**
MQ1: Management of our organization is trusted by organizational members.
MQ2: Management of our organizations has integrity.
MQ3: Management of our organization is a role model for organizational members.
MQ4: Management of our organization applies fast decision making.
MQ5: Management of our organization applies fast action taking.
MQ6: Management of our organization coaches organizational members to achieve better results.
MQ7: Management of our organization focuses on achieving results.
MQ8: Management of our organization is very effective.
MQ9: Management of our organization applies strong leadership.
MQ10: Management of our organization is confident.
MQ11: Management of our organization is decisive with regard to non-performers.

**HPO factor 2: Openness and action orientation**
OA1: The management of our organization frequently engages in a dialog with employees.
OA2: Organizational members spend much time on dialog, knowledge exchange and learning.
OA3: Organizational members of our organization are always involved in important processes.
OA4: Management of our organization allows making mistakes.
OA5: Management of our organization welcomes change.
OA6: Our organization is performance driven.

**HPO factor 3: Long-term orientation**
LTO1: Our organization maintains good and long-term relationship with all stakeholders.
LTO2: Our organization is aimed at servicing the customers as best as possible.
LTO3: The Management of our organization has been with the company for long time.
LTO4: New management is promoted from within the organization.
LTO5: Our organization is a secure workplace for organizational members.
LTO6: Our organization grows through partnerships with suppliers and/or customers.

**HPO factor 4: Continuous improvement and renewal**
CI1: Our organization has adopted a strategy that sets it clearly apart from other organizations.
CI2: In our organization processes are continuously improved.
CI3: In our organization processes are continuously simplified.
CI4: In our organization processes are continuously aligned.
CI5: In our organization everything that matters to performance is explicitly reported.
CI6: In our organization relevant financial and non-financial information is reported to all members.
CI7: Our organization continuously innovates its core competencies.
CI8: Our organization continuously innovates its products, processes and services.
HPO factor 5: Workforce quality
WQ1: The management of our organization inspires organizational members to accomplish extraordinary results.
WQ2: The resilience and flexibility of our organizational members is continuously strengthened.
WQ3: Our organization has a diverse and complementary workforce.
WQ4: Employees of our organization have adequate information and knowledge to do their job.

Organization performance
OP1: I am satisfied with the overall performance of our organization.
OP2: Our organization has been able to provide the services to the public as per their expectation.
OP3: The quality of services provided by our organization is close to the ideal quality.
OP4: The Managers of our organization set high performance expectations for employees.
OP5: In our organization Individual performance appraisal holds people accountable for their performance.
OP6: Our organization use performance measurement in our program management.

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