

Internal marketing strategies in United Arab Emirates higher education

Dilnaz Muneeb

College of Business, Abu Dhabi University, Abu Dhabi, United Arab Emirates

Shehnaz Tehseen

*Department of Management, Sunway University Business School,
Sunway University, Bandar Sunway, Malaysia*

Muslim Amin

*Faculty of Business and Law, School of Management and Marketing,
Taylor's University, Subang Jaya, Malaysia*

Fatima Kader

Abu Dhabi University, Abu Dhabi, United Arab Emirates, and

Khawaja Fawad Latif

COMSATS University Islamabad, Attock Campus, Pakistan

Abstract

Purpose – This paper seeks to analyze the impact of internal marketing orientations (IMOs) on the competitiveness of higher education institutions (HEIs) in the United Arab Emirates (UAE).

Design/methodology/approach – A stratified random sampling was employed to collect data from a pool of 5,968 faculty members in 102 HIEs in the UAE. An online survey questionnaire was placed on Qualtrics online data collection platform and sent to selected participants. Out of a total of 638 surveys sent through email, 349 surveys were returned, duly filled. The model was tested using SmartPLS structural equation modeling (PLS-SEM).

Findings – IMO dimensions of information generation (IG), information dissemination (ID) and information responsiveness (IR) are inexplicably linked to HEI's competitiveness and faculty performance. IR proved to be a more significant predictor of HEI's competitiveness compared to IG and ID.

Practical implications – The study proposes that HEI policymakers encourage the exchange of value among the internal stakeholders and formulate employee-focused policies as part of their corporate objectives. The findings also advocate in improving working conditions and enhancing work-life balance to strengthen the institutions' competitive position within the industry.

Originality/value – This study is the first to explore the interrelationship among the IMO dimensions of IG, ID and IR and their impact on HEI competitiveness, particularly in the UAE.

Keywords Internal market orientation, Higher educational institutions, Institutional competitiveness, Faculty commitment

Paper type Research paper



1. Introduction

For over three decades, the concept of internal marketing orientation (IMO) has been implemented across various industries and countries. The main objective of IMO is to (1) develop employee-targeted marketing strategies, efficiency improvement and effectiveness in workplace activities and (2) enhance employees' satisfaction (Berry *et al.*, 1976). The ultimate goal is to attract and retain employees who are effective in improving organizational performance (Tsai, 2014). By considering them as an organization's asset and treating them as internal customers, a firm could improve its performance and ability to achieve a competitive advantage in the global markets.

According to [Ahmed and Rafiq \(2003\)](#), the rationale for satisfying the needs of internal customers is that with the help of satisfied employees, an organization can provide a better quality of services and be able to satisfy the external customers well. Following this concept, organizations should be strategically oriented toward their internal customers (employees) by implementing policies related to rewards, motivation, training and development, internal communications and strategies articulated for the external customers ([Yildiz and Kara, 2017](#); [Chen and Wu, 2016](#); [Kaurav et al., 2015](#)).

In the higher education context, academicians and administration staff are the internal customers, and the students and stakeholders are the external customers ([Amin et al., 2014](#); [Sahibzada et al., 2019](#)). They play an essential role in enhancing students' learning and satisfaction and in developing a national and international reputation as well ([Machado-Taylor et al., 2016](#); [Sharafizad and Redmond, 2020](#)). Since most of the higher education sectors adopt marketing-oriented strategies to differentiate themselves from their competitors and other institutions ([Lim et al., 2020](#)), their staff can prove vital in achieving such objectives.

The evaluation of IMO by academic staff makes sense as they must participate in the management of higher education institutions (HEIs), and therefore, should have a clear idea of the IMO strategies toward achieving better HEI's competitiveness ([Aras, 2018](#)). Increased competition among universities has pushed several universities to identify unique marketing strategies to sustain their goals and aims.

The sector has to deal with the prevailing market condition and provide high-quality teaching and learning to fulfill its customers' demands ([Anabila et al., 2020](#); [Vaikunthavasan et al., 2019](#)). The service sector will be the key driver of the United Arab Emirates's (UAE) trade growth until 2030 ([Augustine, 2017](#)). UAE's Vision 2021 aims to build a knowledge-based economy by focusing on sectors requiring high skills, such as energy, tourism, aviation and biotechnology. The success of these sectors is hinged on a skilled workforce that will contribute to the country's economic success ([Cedwyn et al., 2013](#)). Higher education being an important service industry, it highly contributes in driving the UAE's economic change. The UAE education sector has witnessed a mass development in the quality, diversity and number of programs. There are strategic plans in place to increase their education standards to the international level. A focus on this sector, therefore, makes it worthy of investigating the role of HEIs in the UAE's quest to develop a knowledge-based economy toward national Vision 2021 ([CHEDS, 2012](#); [UAE interact, 2014](#)), guided by the important pillars as set by the World Bank. The UAE has about 112 HE institutions that have worldwide affiliations ([KHDA, 2014](#)).

Several studies have focused on the IMO strategies in the higher education sectors exist. [Sahibzada et al. \(2019\)](#) developed and validated a multi-dimensional instrument for measuring IMO in Chinese HEIs. [Yildiz and Kara \(2017\)](#) explored the IMO dimension in Turkish HEIs, and [Al Tarifi \(2014\)](#) analyzed IMO's impact on job satisfaction, organizational commitment and student satisfaction in Jordan. [Schuller and Chalupsky \(2011\)](#) explored IMO communication strategies in Czech Republic's public universities, and [Siddiqui and Sahaf \(2007\)](#) studied IMO dimensions like training and development, organizational communication and employee motivation in Indian universities. Although the previous studies have explored the IMO concept in HE sectors, very few studies have ascertained how IMO can shape HEI's competitiveness. Question arises as to how the IMO dimensions of information generation (IG), information dissemination (ID) and information responsiveness (IR) are interrelated to enhance OC. OC refers to the organizational ability to compete in a market by using their uniqueness ([Gupta et al., 2020](#)). To address this question, the researcher intends to examine the interrelationship between the IMO dimensions (IG, ID and IR) and its impact on OC in HEIs in the UAE context, focusing on faculty as the unit of analysis.

The current study makes significant theoretical and practical contributions. The research gathers important information about a faculty's needs and how to address them accordingly

to ensure increased student satisfaction. It will help in reducing the ambiguity within the HEIs and among the faculty members, as it will increase the availability and flow of information between them (Lings, 2004). HEIs can use such insights to align their objectives more efficiently and improve their performance and competitiveness (Madhavaram and Hunt, 2008). The findings derived could facilitate better understanding of IMO in the context of UAE higher education and will add to the existing literature on the subject.

2. Theoretical framework

2.1 *Internal marketing orientation (IMO)*

IMO has roots in the market orientation approach before its application was shifted toward an organization's internal customers, i.e. the "employees." The aim of IMO is to enhance employee's performance through IM strategies (Piercy *et al.*, 2002). The concept was propounded to (1) develop employee-targeted marketing strategies, efficiency improvement and effectiveness in the workplace activities and (2) enhance employees' satisfaction (Berry *et al.*, 1976). The goal is to attract and retain employees who are effective in improving organizational performance (Modi and Sahi, 2018; Sefora and Mihaela, 2016).

Alghamdi (2016) and Luo *et al.* (2012) argued that IMO is a set of strategies directed at employees to attain a high level of performance, thereby increasing the perceived value of customers. The aim is to translate a business strategy by adjusting the IMO dimensions to create the required competencies, hence improve business performance (Ibrahim, 2017; Bolden, 2016). Several scholars (Yildiz and Kara, 2017; Huang and Rundle, 2015) denote that IMO is an organization's cultural tool for achieving the company's mission. IMO can be operationalized at both strategic and technical levels as it is associated with increased awareness and employee activities (Hernandez *et al.*, 2017). The underlying concept is a platform where employees (internal customers) are considered the internal strategic factors (resources) that contribute to an organization's success. Consequently, an organization needs to scan, collect and analyze the information gathered from the internal market related to the demographics, needs, wants and other factors that affect the employees' satisfaction (Akbari *et al.*, 2017). It is argued that organizations that practice IMO are likely to gain benefits from their employees' full potential. Past studies have found that IMO leads to satisfied employees particularly in the service industry (Lings and Greenley, 2009; Sahi *et al.*, 2013) and in not-for-profit organizations (Modi and Sahi, 2018; Sefora and Mihaela, 2016).

Implementing IMO requires a management to invest more resources in acquiring information, improve communications, responding quickly to information and establishing better interdepartmental relationships (Yu *et al.*, 2020). Doing so, as Lings and Greenley (2005) suggest, necessitates three activities: (1) understanding the needs, (2) disseminating the information among the departments and (3) raising the benefits for internal customers (Tortosa *et al.*, 2009). Insights into these relationships can be gained by understanding the relationship between the IMO dimensions.

2.2 *The IMO dimensions*

Kohli and Jaworski (1990) classified the IMO construct into three behavioral components: IG, ID and IR, a combination termed as the MARKOR dimensions. IG refers to the intellectual activity directed to identify and assess the future needs of the present and potential customers. ID refers to the process of distributing market information within an organization, either formally or informally. IR refers to the action taken in response to the information created and disseminated in assessing the market situations (Filieri, 2015; Kohli and Jaworski, 1990; Kohli *et al.*, 1993). Collecting information about internal customers allows employers to

formulate appropriate responses to the internal market and make the internal product (job) more attractive to potential and existing employees than that of competitors' employees (Lings, 2004). Managers need to generate information on their employees' expectations and real feelings about their jobs. The former should undertake honest appraisals and a considerable amount of IMO research (Pool *et al.*, 2017). The present research, therefore, investigates the interrelationship between IG, ID and IR and their impact on institutional competitiveness, as shown in the conceptual framework (Figure 1).

The HEIs need to become more internal market oriented to face their changing environment (Felgueira and Rodrigues, 2015; Khuwaja *et al.*, 2019). IMO is regarded as the main starting point of a corporate strategy of any organization, particularly universities (Gellatly *et al.*, 2020). Applying the IMO's dimensions in HEI settings allows (1) the creation of an environment that is student-oriented, faculty-oriented and competitor-orientation and (2) supporting interfunctional coordination (Niculescu *et al.*, 2013; Sabando *et al.*, 2017). A taxonomy that summarizes the relevant IMO studies within the HEI is presented in Appendix 2, which also highlights the gap for future studies.

3. Hypothesis development

3.1 IMO interrelationship

Studies on IMO have revealed the importance of gathering information about staff's needs and taking appropriate measures to disseminate information to respond to their needs. This chain of IG, ID and IR signifies a strong interrelationship among the subvariables of IMO; the IG serves as a starting point to implement the IMO strategies, followed by the ID and IR. Jaworski and Kohli (1993) suggested the possibility of a causal-order relationship among the three dimensions, similar to the interrelationship between the dimensions of external market orientation. Accordingly, Kohli *et al.* (1993) and Lings and Greenley (2005) advocated future researchers to explore the existence of a causal-order relationship between the three dimensions and test its linear information processing model. They proposed that future research should tests the IMO construct in different cultural settings. They argued that results might differ if the same study were to be conducted in another country with a different culture, language and challenges. This notion is supported by Hofstede (1994), who claimed that a theory's validity does not necessarily stay valid beyond national borders due to the different values of employees in different countries. IMO is prone to being subjective to national culture since social values would significantly influence employer–employee relationships and expectations. Furthermore, Robledo and Aran (2014), who developed a valid and reliable instrument for measuring IMO, suggested that IMO research be extended to other sectors.

A series of information collecting and processing activities can be conceived within the domain of never-ending information generation. The generated information can be expounded, consolidated and interpreted for various purposes. In almost every field, the generated information can be further used as raw data for elaborating and generating further information. Efficient information gathering and disseminating is the key to successful task

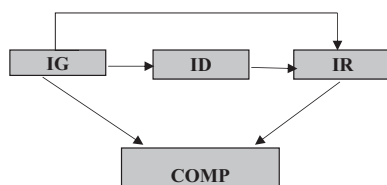


Figure 1.
Conceptual framework

performance (Dudek, 1991). Arnolds and Boshoff (2002) posit that the more information generated about the needs and wants of the internal market, the higher the possibility for the organization to effectively disseminate the information to the relevant decision-makers.

The current study hypothesizes the debated interrelationships between the elements of IMO, as initially conceptualized by Lings and Greenley (2005), Robledo and Aran (2014) and Ruizalba *et al.* (2014). Their study proved to be instrumental in validating the practice of IMO. This research found a direct, positive and significant relationship between the informal and formal generation of internal information and subsequent ID within the organization. In testing the impact of IG on ID, the first hypothesis is formulated as follows:

H1. IMO IG has a significant and positive impact on ID.

ID is a crucial part of task management (Matar *et al.*, 2016). It refers to the communications that occur between departments and between management and employees (Gounaris, 2006). Kohli *et al.* (1993) suggested that information generated about the internal market and the dissemination of the generated information precedes value-adding responses by the decision-makers. So, Lings and Greenley (2010) emphasized that information should be disseminated, so that decision-makers can analyze and respond accordingly. As a result, the managers can stay aware of their employees' needs and wants, which in turn facilitate them to mold the employees' attitude and behavior in line with the goals of the organization (Fang *et al.*, 2014).

Arnolds and Boshoff (2002) suggested that if the information gathered is effectively communicated to the decision-makers of the organization, there is a higher possibility for the decision-makers to satisfy at least some of the identified needs and wants of the internal market. On the other hand, if the information generated is not disseminated to the decision-makers, there is a limited probability of achieving a successful employer–employee interaction. This study, thus, finds it significant to evaluate the impact of ID on IR. Hence, the second hypothesis is stated as follows:

H2. IMO ID has a significant and positive impact on response to internal market information (IR).

Harrison-Walker (2001) suggests that ID provides a shared basis for concerted responses by various employees. However, until an organization responds to the customer's needs, nothing can be significantly accomplished. Hence, responsiveness is the action taken in light of the information generated and disseminated, and it involves planning and implementing a response strategy.

Lings and Greenley (2005) indicate that responsiveness to the internal market has a positive and significant relationship with customer orientation. It will utilize the gathered information to adjust the working conditions, jobs and training, thus resulting in employee satisfaction and motivation. As Lings and Greenley (2005) suggest, IG influences the response or action taken by the decision-makers to satisfy the identified needs and wants of the internal market, regardless of whether the generated information has been disseminated or communicated. Tortosa *et al.* (2009) also argued that there is a direct relationship between informal IG and response to internal market information. This study, thus, finds it significant to evaluate the impact of IG on IR with the following hypothesis:

H3. IMO IG has a significant and positive impact on response to internal market information (IR).

3.2 IMO impact on HEI competitiveness

IMO as an internal capability directs an organization toward competitiveness (Jaworski and Kohli, 1993; Lings and Greenley, 2010). Nyberg and Ployhart (2013) reinforce similar claims based on the theory reflected by Barney (1991). The theory proposes that since each employee

possesses uncommon traits (e.g. valuable, rare, nonimitable and nonsubstitutable), each human will exhibit different behavior in a similar context. An organization should invest in its individual employee's needs and use the IMO policies to direct the firm toward OC.

Certain management practices (IMO) could facilitate entrepreneurial resource recombination activities by making it possible for staff members to take innovative initiatives and by rewarding such efforts (Brown *et al.*, 2001). Sharmila (2013) argues every organization's strength and performance are in its workforce and its capabilities, commitments and loyalty. Tsai and Wu (2006) considered IMO as the integration and coordination of all organization efforts toward the systematic implementation of corporate strategies. IMO thus increases performance and improves service quality (Berry *et al.*, 1976).

Rosca (2015) and Lings and Greenley (2009) suggest that IMO leads to customer satisfaction, employee motivation and overall organizational performance. He concluded that each component of market orientation does not necessarily assume an equally strong association with profitability. To confirm the association between the dimensions of IMO and OC, the researcher formulated the fourth hypothesis:

- H4.* Response to internal market information (IR) has a positive and significant impact on oOC (OC).

Several studies demonstrated the direct influence of managers' support in the form of response to internal information (IR), leading to improved employee performance (Akbari *et al.*, 2017; Wayne *et al.*, 1997). Likewise, an open, two-way flow of communication between the managers and the employees has a positive influence on employees' performance (Johlke and Dale, 2000). The majority of empirical studies corroborate the positive influence of job satisfaction on the performance of the employees and, therefore, on the quality of the service received as perceived by the external customer (Lings and Greenley, 2005; Gounaris *et al.*, 2010).

On the contrary, Amangala and Amangala (2013) found a positive and significant relationship between IG on IR in the form of strategies directed toward employee's needs. IG is considered the "first half" of internal communications and is considered as lost information if it is not directed toward enhancing the firm's performance. The idea that employees drive services is based on the general acceptance that during the service encounter, the employees' attitudes influence the customers' perceptions of the service they receive (Foster and Cadogan, 2000). Several contributions have identified the relationship between employee satisfaction, customer satisfaction and organizational performance (Rucci *et al.*, 1998). Hence, assuming IG leads to IR, it further influences the OC. Based on these arguments, the fifth hypothesis was formulated as follows:

- H5.* Response to internal market information (IR) mediates the relationship of IG and OC.

Based on the above arguments (Figure 2), we propose a model in which the dimensions of IMO – IG, ID and IR are interrelated and conceptualized predictors of OC.

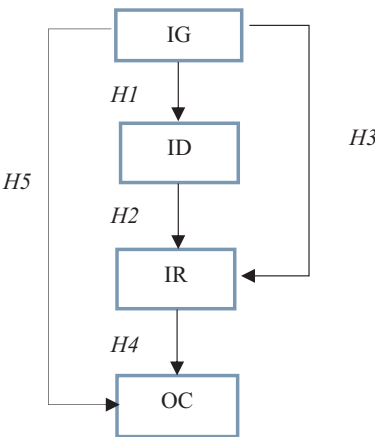
4. Research methodology

4.1 Sample and data collection

The study applied the partial least square structural equation modeling (PLS-SEM) technique using Smart PLS-3. PLS-SEM represents a well-substantiated method for estimating complex cause–effect relationship models in management research (Sahibzada *et al.*, 2019).

The research involved 112 HEIs (public and private HEIs) across seven emirates of the UAE. A stratified random sampling method was adopted to collect data from 14,974 faculty members (Bayanat, 2016). This method could enhance the representativeness of the elements of a population as subjects in the sample (Wei *et al.*, 2014) and allow a larger

Figure 2.
Hypotheses framework



variation in results (Reed *et al.*, 2011). The method also allows the researcher to examine various subgroups, hence rendering a more representative sample than that achievable with simple random sampling (Davis, 2005).

Accordingly, a total of 35 HEIs were randomly selected, considering location (five HEIs from each of seven Emirates) and classification (eight public and 27 private). “Faculty member” was another criterion considered to ensure that the right candidates were selected. Hence, nearly 14 to 20 faculty members were randomly selected from each of the 35 HEIs identified, rendering a total of 638 participants selected at this point. The participants’ email addresses were obtained from the selected HEI, and a link of the survey on Qualtrics was emailed to each participant. Qualtrics is an online data collection platform recommended for academic investigations (Pe’er *et al.*, 2012). The platform abides by the UK Data Protection Act (1998) and permits full confidentiality of responses.

The study was conducted over a period of eight weeks (two months). In total, two additional weeks were added as a buffer time to maximize response rate, facilitated by the researcher’s network of professionals within the industry and the sending of reminders to the participants. The reminders were sent only in the seventh (7th) and eight (8th) week as well as the two-week buffer period. As shown in Figure 3, a total of 356 questionnaires were returned, seven (7) of which were eliminated due to missing data/biased responses. The final number of valid responses was 349, an equivalent to an effective response rate of 54.7%.

4.2 Measures of constructs

The main sources that were used to measure IMO in the present study include Robledo and Aran (2014), Ruizalba *et al.* (2014) and Lings and Greenley (2005). As can be seen in Appendix 1, a total of nine (9) items were considered for IMO measurement with its three main sub-constructs, i.e IG, ID and IR. Each of these three sub-constructs was measured with the help of three (3) items per each construct. The HEI competitiveness was measured with the items adapted from De Haan (2015).

5. Results and analysis

5.1 Exploratory factor analysis (EFA)

An EFA was adopted to evaluate the scale structure to determine the proposed multidimensional tool for measuring IMO in HEIs. The analysis was performed using a

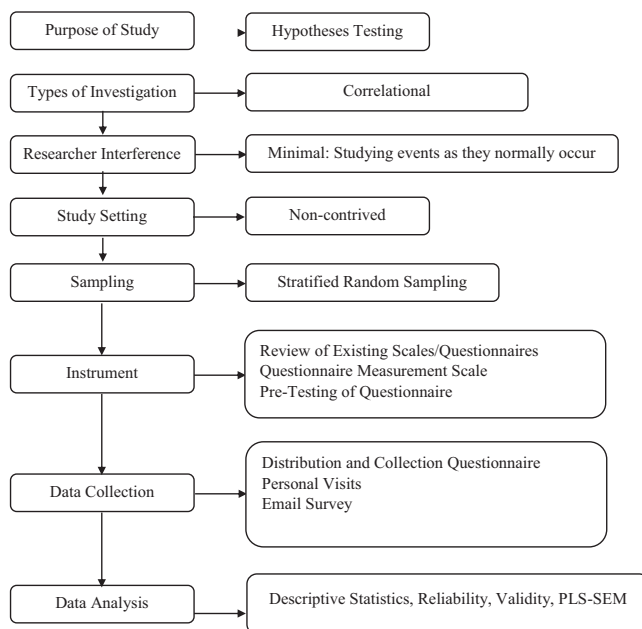


Figure 3.
Research diagram

principal component analysis and varimax rotation. EFA requires meeting several assumptions, including whether the data matrix has sufficient correlations when tested. The analysis revealed that almost all the correlations were significant ($p < 0.001$), thus providing an excellent footing for a factor analysis.

The second step involved weighing the overall significance of the correlation matrix through Bartlett's test of sphericity. This test provides a measure of statistical probability that the correlation matrix has significant correlations among some of its components. The results were significant [$\chi^2(n = 349) = 4769.826$ ($p < 0.001$)], indicating the matrix's suitability for factor analysis. The Kaiser-Meyer-Olkin measure of sampling adequacy (MSA), which indicates the appropriateness of the data for factor analysis, was 0.904. Data with MSA values above 0.800 were considered appropriate for factor analysis. The factor solution derived from this analysis yielded three factors for the scale, which accounted for 87.729% of the variation in the data. Results of the factor analysis are summarized in Table 1.

	1	2	3
IG1	0.570		
IG2	0.774		
IG3	0.695		
ID1		0.702	
ID2		0.678	
ID3		0.807	
IR1			0.687
IR2			0.802
IR3			0.843

Table 1.
EFA component
matrix

5.2 Remedies for common method variance

Common method variance (CMV) could exist since the data for the independent and dependent constructs were collected from similar respondents. Several procedural remedies were used to minimize the CMV, including using a cover letter to ensure respondents' confidentially; defining unfamiliar terms; avoiding ambiguous concepts and keeping questions concise, simple and specific (Tehseen *et al.*, 2017). One of the statistical remedies, the "Correlation Matrix Procedure" (CMP) proposed by Bagozzi *et al.* (1991), was used to analyze the CMV's impact through the correlations of latent variables. A substantially large correlation of more than 0.90 among the principal constructs will be evident in CMV if found.

Table 2 shows that the correlation among all the constructs was less than 0.90; therefore, CMV was not an issue for the present study. The full collinearity assessment approach, as suggested by Kock (2015a), was used to assess the CMV. A full colinearity test confirmed that all the factor-level variance indicators were below 3.3. This result indicates that the model is free from CMV, and that the findings are reliable for drawing implications.

5.3 Inferential data analysis

The PLS-SEM was chosen to analyze the inferential data in this study for several reasons. First, the method was preferred due to the many assumptions and restrictions of the covariance-based structural equation modeling (CB-SEM) (Hair *et al.*, 2019). PLS-SEM is also a distinct method for analyzing composite-based path models (Hair *et al.*, 2019) and an emerging technique in business and management research. The method has been utilized to handle small sample size and nonnormal data. PLS-SEM is also significantly appropriate for studies that seek to assess the existing theories and involve complex model structures (Ringle *et al.*, 2020). The method is also deemed suitable for an analysis that involves the testing of theoretical framework from a prediction perspective (Hair *et al.*, 2019) and a nonnormal data set (Hair *et al.*, 2017).

Following the suggestions of Ramayah *et al.* (2017), multivariate skewness and kurtosis were assessed through web power software. Results showed that the data were not multivariate normal with Mardia's multivariate skewness of 58.855 and kurtosis of 204.780. Thus, the data were analyzed using SmartPLS, which is applicable for nonparametric analysis. The analysis consisted of measurement and structural models' assessments, as suggested by Hair *et al.* (2017). The measurement model is also known as the outer model in PLS-SEM, which displays the relationships between the constructs and their items. The structural model is the inner model in PLS-SEM, which shows the paths or relationships between the constructs (Hair *et al.*, 2018).

5.4 Assessment of measurement model

At the first stage, the evaluation of the reflective measurement model involves examining the loadings of the indicators. Loadings having a value above 0.708 are suggested because they show that more than 50% of the variance of the indicator is explained by the construct, thus giving acceptable indicator reliability. The second step involved evaluating the quality of

Table 2.
Correlation matrix
approach

	CMP	ID	IG	IR
CMP	1			
ID	0.599	1		
IG	0.498	0.549	1	
IR	0.616	0.404	0.320	1

internal consistency, utilizing Jöreskog's (1971) composite reliability (CR). In general, greater values show higher reliability. Another measure of internal consistency reliability, Cronbach's alpha, assumes comparable thresholds but generates lower values than composite reliability (Hair *et al.*, 2019). Alternatively, Dijkstra and Henseler (2015) suggested "rho A" as an accurate measure of the construct's reliability, which generally lies between Cronbach's alpha and CR. Convergent validity assessed in the third phase of measurement model assessment should be above 0.50. Table 3 shows that all the items' loadings, reliabilities and average variance extracted (AVE) are above their threshold values.

Lastly, discriminant validity should be evaluated by using the heterotrait-monotrait (HTMT) ratio, as proposed by Henseler *et al.* (2015). A value of 0.90 is the threshold of structural models with a bootstrapped confidence interval of less than 1.00 (Hair *et al.*, 2019; Henseler *et al.*, 2015). Table 4 shows the HTMT ratios, which are less than 0.90, and the confidence interval is less than 1.00.

5.5 Assessment of structural model

The assessment of the structural model evaluates coefficient of determination (R^2), f^2 effect sizes, cross-validated redundancy measure of Q^2 and variance inflation factor (VIF) values to determine the colinearity problem, along with paths coefficients' statistical significance and relevance. The indicators' VIF values were found below 5, thus indicating a lack of colinearity in the data (Hair *et al.*, 2017). After assessing the VIF values, we examined the sizes and significance of the path coefficients, which reflect the hypotheses. The path coefficients' significance was calculated using the procedure of bootstrapping (with 5000 samples of bootstrap and 349 cases of bootstrap).

Results of the hypotheses testing are shown in Table 5.

Constructs	Items	Loadings	Cronbach's alpha	Rho A	Composite reliability	Average variance extracted (AVE)
CMP	CMP1	0.609	0.762	0.789	0.849	0.587
	CMP2	0.864				
	CMP3	0.797				
	CMP4	0.772				
ID	ID1	0.724	0.604	0.619	0.788	0.554
	ID2	0.796				
	ID3	0.709				
IG	IG1	0.876	0.662	0.762	0.814	0.606
	IG2	0.507				
	IG3	0.891				
IR	IR1	0.806	0.728	0.734	0.846	0.646
	IR2	0.798				
	IR3	0.808				

Table 3.
Assessment of
measurement model

	CMP	ID	IG	IR
CMP				
ID	0.897 (0.811, 0.991)			
IG	0.72 (0.623, 0.810)	0.823 (0.722, 0.958)		
IR	0.808 (0.703, 0.894)	0.591 (0.473, 0.739)	0.422 (0.314, 0.560)	

Table 4.
HTMT ratio

Table 5 shows that hypotheses H1 ($\beta = 0.549, t = 14.028$), H2 ($\beta = 0.326, t = 5.853$), H3 ($\beta = 0.141, t = 2.818$), H4 ($\beta = 0.616, t = 14.074$) and H5 ($\beta = 0.087, t = 2.831$) are well supported. The results indicate positive and significant relationships among the constructs. IR was found to be a mediator in the relationship between IG and CMP (indirect effect of 0.087 at $p < 0$). The t -values indicate that the relationships between all the constructs are significant at 1% confidence level. The values of 95% confidence intervals show a lack of zero between the upper bound and lower bound, thus indicating the significance for each relationship.

R^2 values were assessed to measure the explanatory power of the model (Shmueli and Koppius, 2011). The R^2 values of the CMP and ID were found to be 0.380 and 0.302, respectively, indicating substantial predictive power (Ramayah et al., 2018). The R^2 value of IR was found to be 0.177, thus indicating a moderate predictive accuracy (Ramayah et al., 2018; Cohen, 1988). The Q^2 values of the CMP (0.169), ID (0.107) and IR (0.060) indicate that the exogenous constructs have predictive relevance for endogenous constructs (Hair et al., 2017). The f^2 effect size values of IG for ID and IR were found to be 0.432 and 0.017, respectively, thus indicating substantial and medium effect sizes. On the contrary, the f^2 effect size values of ID for IR and IR for CMP were 0.090 and 0.613, respectively, thus indicating small and substantial effect sizes (Cohen, 1988).

6. Discussion

The study found a significant impact of IG on ID (Ruizalba et al., 2014). IG and ID not only form a part of the IMO construct, as argued by Gounaris (2008) but also exhibit a definite relationship. Lings and Greenley (2010) built on Jaworski and Kohli's (1993) assertion that the IMO dimensions of sensing and reporting are inexplicably linked. Simply put, IG precedes and incites ID, which in turn, incites a response to market information. The efficient undertaking of any preceding activity of IMO will therefore make the functions efficient that follow.

The research also revealed the significant effect of ID on response to internal market information. The existence of a positive and statistically significant relationship was found between these two factors although the regression weight or effect was not too high compared with the other relationships. The effect of IG on ID was also found to be greater than the effect on the IR. This finding may be explained by the original process flow of resources in the traditional IMO construct, in which IG leads directly to ID but relates indirectly with the response to market information (Gounaris, 2006). The research of Lings et al. (2010) supports this result, indicating that by establishing the causal sequencing among the dimensions of IMO, IG directly influences ID but indirectly influences the firm's ability to be responsive to its markets.

Relationships	VIF	Beta values	<i>t</i> values	<i>p</i> values	95% confidence interval of relationships	Decision
H1: IG - > ID	1.000	0.549	14.028***	0.000	[0.463, 0.617]	Supported
H2: ID - > IR	1.432	0.326	5.853***	0.000	[0.209, 0.427]	Supported
H3: IG - > IR	1.432	0.141	2.818**	0.005	[0.042, 0.239]	Supported
H4: IR - > CMP	1.000	0.616	14.074***	0.000	[0.516, 0.691]	Supported
H5: IG - > IR - > CMP	NA	0.087	2.831**	0.005	[0.026, 0.147]	Supported

Table 5.
Hypothesis results

Note(s): t (0.05, 4999) = 1.645; t (0.01, 4999) = 2.327; t (0.001, 4999) = 3.092; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ and one-tailed test. BCa = bias-corrected confidence interval. Bootstrapping based on $n = 5000$ subsamples

The results also indicate that IG leads to a response to market information. This relationship was found to be the strongest of the three. This indicates that (1) the head of the department encourages staff to discuss their problems (customer needs and wants); (2) supervisors are always available to staff, when needed (service benefits), and (3) supervisors attempt to explain the principal objectives of the institution to staff (corporate aim and strategy). Correspondingly, [Gounaris et al. \(2010\)](#) and [Boukis et al. \(2017\)](#) also acknowledged similar relation.

The current insights into IG, ID and IR can be used as an important organizational information management tool. The findings concur with the importance of collecting and analyzing information related to IMO ([Rodrigues and Pinho, 2012](#)). The gap related to marketing information can be filled only if employers communicate with their employees on a personal and regular basis. The collected information can also be used by firms to customize their strategies and respond to their internal customers' needs ([Domínguez-Falcón et al., 2017](#)). According to [Jain et al. \(2011\)](#), the service quality of higher education is hinged on timely information communication.

The results also indicate that the relationship between IR and HEI's competitiveness is the most statistically significant, thus corresponding to previous studies ([Ahmed et al., 2003](#); [Jyoti and Sharma, 2012](#)). Timely and agile IR increases a firm's ability to be responsive to faculty's needs and increase its performance ([Luo et al., 2012](#); [Alghamdi, 2016](#)). The faculty's performance will in turn influence the students' output ([Al-Kurdi et al., 2018](#)). Such relation is crucial because a faculty fosters its students' competitive advantage in preparing them for employment ([Yildiz and Kara, 2017](#)).

The findings also reveal a significant mediating role of IR in the relationship between IG and competitiveness. The results show that information for organizations to make better use of IG and to improve OC, they have to focus on IR as an intervening factor. This result strengthens the assertion that IG would facilitate improvement of IR which would ultimately lead to improved competitiveness of academic institutions ([Álvarez et al., 2017](#)).

Of the two hypotheses [H4](#) and [H5](#), considering the impact on IG and IR on competitiveness, IR proved a more significant predictor of HEI competitiveness than IG. The results are supported by [Lings and Greenley \(2010\)](#) that the IMO dimensions of sensing, disseminating and responding are inexplicably linked. Put simply, generating information about the faculty's needs leads to ID that further leads to management responsive, thereby offering products (jobs) based on gathered information. This finding also agrees with [Vel et al. \(2019\)](#), that continuous generation and dissemination of information are important to offer new ideas fundamental to a firm's internal orientation toward employees. The underlying philosophy being the exchange of value between the internal stakeholders and the firm, i.e. increasing the stakeholders' perceptions of value, makes them more committed to the firm ([Boukis et al., 2014](#); [Berry and Berry, 2016](#)).

The finding of the studies presents HEIs with a valuable information tool that equips it with the communication-rich data and a cultural tool to develop a marketing-oriented environment ([Sahibzada et al., 2019](#); [Wasmer and Bruner, 2000](#)). HEIs are in dire need of proper information structures that would help it to adopt transparency, guide toward academic leadership and provide open data channels ([Chaurasia et al., 2018](#)). The free flow and exchange of information and ideas among the faculty members of HEIs are vital for developing a healthy teaching and research environment ([Senthilkumar and Arulraj, 2011](#)). Timely communication leads to high employee motivation and increased level of confidence, thus a higher level of employee performance, which is translated to increased HEI performance ([Rainey, 2014](#)). According to [Masa'deh et al. \(2017\)](#), the differences in the success level of HEIs could be attributed to their knowledge management strategies, being a main tool for competitive advantage by service-providing organizations. The right bridging of the information and knowledge gap between internal and external customers is what makes

HEIs outperform their competitors. As such, IMO strategies and tools serve as an important platform providing systematic information management, resulting in an enhanced HEI's performance (Yildiz and Kara, 2017).

7. Conclusion

Globalization, technological advancement and greater service efficiency demand the necessity of continuous reviewing and renewing of higher education policy and curriculum to keep pace with the changing world (Alhosani *et al.*, 2017). Therefore, the role and competencies of the leadership through good IMO strategies remain crucial factors in supporting HEIs and their members to cope with ever-changing circumstances (Fullan, 2016). Hence, it is recommended that the efforts to remain dynamic and competitive should be built by expressing concern for employees and treating them as an internal resource. As such, this study was undertaken to investigate IMO dimensions' association with HEI competitiveness and faculty performance. The study found a significant impact of IMO on competitiveness, implying that focusing more on IMO initiatives can further improve HEI's performance and competitiveness. The study concludes that the UAE-based HEIs need to be more service-oriented and competitive, and this is only possible with an increased focus on their faculty members (Ababneh and Hackett (2019); Austin *et al.*, 2014). These HEIs must understand that the more they become faculty-oriented, their chance to be recognized, valued and student-oriented also increases. In short, if these HEIs put more effort into promoting IMO, i.e. faculty-focus, they attain more competitiveness and gain improved performance.

8. Research implications

8.1 Theoretical implications

The findings of this study established the interrelationship between the three dimensions of IMO and are in line with the previous researchers' arguments that a causal-order relationship exists between the dimensions of IMO (Lings and Greenley, 2005; Slater and Narver, 1995). This study reaffirms such a proposition that IR is a significant predictor of HEI competitiveness (Lings and Greenley, 2005).

Furthermore, this study addresses the research gap and recommendation to test the impact of IMO on organization competitiveness in a different culture and another sector (Robledo and Aran, 2014). The findings support that of Barney's (1991) study that each employee has a unique potential and Sharmila's (2013) study that the strength of any organization lies in a motivated and capable workforce. The findings are further aligned with the arguments of Johlke and Dale (2000) that the effective IMO can have a positive influence on employee competency, which in turn, can increase the quality of service received as perceived by the external customer, thereby leading to organizational competency (Gounaris *et al.*, 2010).

8.2 Practical implications

The practical implication of this paper is determined by the organization's decision-makers and the importance given to the satisfaction of internal customers (employees), which can lead to superior organizational performance (Gounaris, 2006). The notion can transpire the addressing faculty's needs by improving coordination toward identified competitive outcomes, hence practical implications for HEI policymakers. The findings can inform the HEIs in the UAE a means to increase their competencies by improving their IMO strategies.

Institutions may encourage the exchange of value and other individual factors, which may in turn, lead to employee-focused policies as part of the institutional objectives. Also, managerial decision-making and practices in HEI are influenced mostly by market changes

and needs; therefore, the heterogeneity of HEI adoption of IMO significantly depends on the level of market orientation. For this reason, [Jiang and Chen \(2018\)](#) suggest that organizations should be proactive and innovative in developing and delivering their products and services to their customers.

Other ways of establishing competitiveness through internal human resources are by genuinely expressing concern for employee welfare and the actual institution of plans in the form of work and family balances. A training faculty on new subjects and tasks, as well as other work-life balance, can inspire faculty members' willingness to search for avenues to improve their work performance. Such a measure may also improve the coordination or cooperation between faculty members or faculty and management. Overall, an excellent attempt to improve working conditions and ensure an enhanced work-life balance may improve the institution's competitive position within the industry.

9. Limitations and scope for future research

The limitations encountered in this study suggest the scope of future research. The current study was conducted on sample faculty across all the seven emirates of UAE, including the public and private HEIs. Such a measure limits the generalizability of the results. Future studies can test the model on all academic and nonacademic staff of HEIs. The findings could also apply in the UAE but not to other countries and cultures. However, since the study is new in the Middle East context, the findings can be generalized to other Gulf Cooperation Council (GCC) countries, given the similarity in economic, social, cultural and political aspects to that of the UAE. Future studies can consider mediators or moderators to establish the relation between IMO dimensions and organizational performance.

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Table A1.
Measurement items

Appendix 1.	
Dimension	Item
<i>Information generation(IG) source: Lings and Greenley (2005)</i>	
IG1	Top management does a lot of internal market research
IG2	Top management tries to find out staff's feelings about their jobs
IG3	Top management regularly talks to staff about their work
<i>Information dissemination (ID) source: Robledo and Aran (2014); Ruizalba et al. (2014)</i>	
ID1	The head of department encourages staff to discuss their problems
ID2	Supervisors are always available to staff when needed
ID3	Supervisors attempt to explain the principal objectives of the institution to staff
<i>Information response (IR) source: Robledo and Aran (2014); Ruizalba et al. (2014)</i>	
IR1	Top management shows genuine interest in staff matters
IR2	Staff can find a balance between work and family lives
IR3	Training or seminars are organized for staff
<i>HEI competitiveness items' source: De Haan (2015)</i>	
<i>In my institution there has been integral improvement</i>	
COMP1	Has a high quality of education and research
COMP2	Has high reputation in term of brand image and attractiveness
COMP3	Has unique selling points that make us different from other institutions
COMP4	Has the number of students enrolled that continues to grow exponentially over the years

Appendix 2.

Research information	Variables and measurements	Findings and recommendations
Author: Gellatly et al. (2020)	<i>Variables used:</i> Informal IG, formal face-to-face IG, formal written IG, ID and IR <i>Method of measurement:</i> The research is based on 492 responses from academics employed in Australian and New Zealand universities	<i>Findings:</i> No support was found for a positive relationship between IMO and performance, which suggests that IMO helps to build persistence with academics, which in turn benefits performance <i>Recommendations:</i> Future research may extend the findings by examining how marketing strategies are implemented in noneducational organizations and industries
Author: Sahibzada et al. (2019)	<i>Variables used:</i> Internal communications, training and development, interrelations, motivation, rewards and work support <i>Method of measurement:</i> Methodological triangulation, involving both qualitative and quantitative techniques, was used to generate the scale items, and the quantitative technique was used to test and validate the scale. A sample of 576 academics and administration staff from universities in China was used	<i>Findings:</i> The study found six dimensions of IM; all had a significant impact on university performance <i>Recommendations:</i> The future studies shall test the scale/ dimensions of IM in different cultural settings to extend its generalizability

Table A2.
Dimensions of IMO

(continued)

Research information	Variables and measurements	Findings and recommendations
Author: Vel et al. (2019)	<i>Variables used:</i> Intelligence generation, internal communication, response, leadership and organizational citizenship behavior <i>Method of measurement:</i> The three constructs as proposed by Lings (2004) were adopted and two new constructs were included, namely, leadership and organizational citizenship behavior, considering the emerging corporate milieu	<i>Findings:</i> The two new constructs serve as enhancers and facilitators of the philosophy. The renewed framework and philosophy applies to the HE sector of the UAE. <i>Recommendations:</i> The future studies can test the validity of the proposed model by both quantitative and qualitative methods, keeping in mind the employee's and employer's perspective and across different industries
Author: Yu et al. (2018)	<i>Variables used:</i> Internal information collection, internal information communication and responsiveness to internal market situations <i>Method of measurement:</i> The study employs a quantitative methodology in the context of employees in the UK higher education sector with sample of 235 employees. IMO was examined as a management tool to drive employees' university brand commitment <i>en route</i> to brand supportive behavior	<i>Findings:</i> The study found that HEIs with higher level of IMO perform better in relation to their internal branding outcomes in terms of employee brand commitment as well as brand supportive behavior <i>Recommendations:</i> Future research may include other internal branding tools, such as brand communication, impact of university brand image, employee brand identification or traditional brand campaigns, to increase brand commitment and supportive behavior from a more comprehensive perspective
Author: Nguyen (2015)	<i>Variables used:</i> IG, IDand IR <i>Method of measurement:</i> Two samples were collected. In the first sample, 29 managers and directors of bank branches from four leading joint-stock commercial banks, and the second sample was 352 staff members from banks	<i>Findings:</i> The dimensions of IMO are significant in motivating and training employees to think and behave in a consumer perspective <i>Recommendations:</i> Future studies should examine this study's model on a larger population of other types of banks, other services and manufacturing industries
Author: Altarifi (2014)	<i>Variables used:</i> Employee development, internal market research, internal communications, performance incentives, management support and vision about excellent service <i>Method of measurement:</i> Previously validated scales were used	<i>Findings:</i> The findings indicate that although IM has a significant effect on job satisfaction and organizational commitment, its effect is not substantial <i>Recommendations:</i> The future research is encouraged to identify other drivers of job satisfaction and organizational commitment

(continued)

Table A2.

JEIM

34,6

1820

Research information	Variables and measurements	Findings and recommendations
Author: Carlos and Rodrigues (2012)	<i>Variables used:</i> Identification of trading value, awareness of labor market, conditions, segmentation of the internal market, segmentation of internal targets, communication between managers and employees, communication among managers, job description, pay system, concern on the part of management and training <i>Method of measurement:</i> The IMO scale, consisting of 43 items, developed by Gounaris (2006) was adopted, and the items were arranged in ten dimensions of IMO. The data were gathered through a questionnaire, applied both in the public and private sector	<i>Findings:</i> IMO has a direct impact on satisfaction and on organizational commitment and an indirect impact on OCB, though not very significant, and on performance, although very low <i>Recommendations:</i> The research suggests the replication of the study in other levels of education, even on sales and other service activities

Table A2.

Table A2.

Corresponding author
Dilnaz Muneeb can be contacted at: dilnaz.khan@hotmail.com