Promoting organizational vision integration among hospital employees

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Research Article

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Abstract

Background

The concept of organizational vision has been little explored within the health-care services research literature. Based on this knowledge gap in the literature, this study examines the factors that potentially promote organizational vision integration (OVI), which refers to the employees’ use of organizational vision as a guiding framework in their respective work roles. The roles of organizational commitment (OC), leadership autonomy support (LAS), and organizational culture on hospital employees’ OVI are examined.

Methods

Hospital employees participated in a survey. Partial least-squares structural equation modelling was performed using SmartPLS 3 software to test the proposed hypotheses statistically. A bootstrapping test was used to identify the mediating effects.

Results

The main findings show that: (i) OC is the most powerful factor to promote employees’ OVI ($\beta = 0.26$), while organizational culture (represented by the concept of internal market-oriented culture) and LAS showed significantly less and almost equal impact ($\beta = 0.16$ and $\beta = 0.15$, respectively), respectively, and in total explains 25% of the variance in the concept of OVI; (ii) LAS and organizational culture both significantly contribute to employees’ OC ($\beta = 0.35$ and $\beta = 0.29$, respectively) and in total explains nearly 40% ($R^2 = 0.38$) of the variance in the concept of OC; (iii) the relationships between organizational culture, LAS, and OVI are mediated through OC; and (iv) LAS mediates the relationships between organizational culture and OVI, and between organizational culture and OC.

Conclusions

To promote hospital employees’ OVI effectively, hospital managers should especially focus on their employees’ OC. Specifically, they should strengthen their employees’ OC through building a strong employee-focused organizational culture in addition to leaders who practice LAS. This contributes to promoting hospital employees’ OVI.

Background

You may have personally experienced participating in a workshop, often located far away from where you are employed. You work from early morning until late evening. And finally, after 2–3 days of intensive collaborative work, a 10-page document is produced. When returning home, all participants are happy
and proud of the final result. When you arrive at the office, you place the document produced during the workshop on a shelf. Upon sitting down in your office chair, you contemplate the thought, “that was it?” while asking yourself, “will the results of the workshop really have any impact on this organization's employees and will they lead to a substantial increase in their work performance?” Wait! What is this story about? What was the goal of the workshop? You have probably already guessed it. The correct answer is attending a strategy workshop to develop a new vision for your organization.

This opening vignette illustrates two fundamental important questions that naturally arise regarding the potential power of organizational vision. The first question is related to the effect of organizational vision, such as whether it leads to the organization's employees improving their performance? The second question focuses on whether the organization’s employees will adopt (mentally) and implement (behaviorally) the organizational vision? Clearly, both questions are significant when considering the potential power of organizational vision. However, it is reasonable to argue that the second question is more fundamental and critical in its content compared to the first question because it more or less constitutes a necessary precondition or an “initial step” towards the actual manifestation of tangible effects stemming from organizational vision, which is focused on in the first question. Consequently, without any adoption and implementation among its employees, an organizational vision will only have a limited or no effect. In such a situation, the organizational vision can be considered relatively useless [1]. Slåtten and Mehmetoglu stress the critical importance of implementing organizational vision among the organization members: “implementation is fundamental for a firm's success” [1]. Consequently, it becomes imperative for organizations to identify potential factors or constellations of factors that promote the adoption and implementation of organizational vision among their employees.

The purpose of this study is to examine the factors that promote the adoption and implementation of organizational vision, which is referred to as organizational vision integration (OVI). Specifically, the study uses the employees’ perspective when focusing on OVI. This is in contrast to most previous research, which has primarily focused on aspects related to organizational vision from a leadership perspective. According to Kohles et al., employees have been “only rarely mentioned in the visioning process ... often relegated to a largely passive role in vision implementation” [2]. This lack of focus on employees in the previous research literature is surprisingly because employees are those who “ultimately determine whether vision statements are ignored or accepted” [2]. To our knowledge, this is one of the pioneering studies within the health-care services research literature, with one exception [3], to explore factors that promote OVI from the employees’ perspective. Consequently, this study contributes to a relatively unexplored domain within the health-care services research literature.

This study is structured in the following way: First, we present the conceptual model. Second, each concept is defined and the associations between concepts are hypothesized. Third, we elaborate on the methodology and present the results from the statistical tests. Fourth, we discuss our findings and provide suggestions for future research. Finally, we provide some conclusions.
Conceptual model

The aim of this study is to contribute to our understanding of employees’ adoption and implementation of organizational vision. In Figure 1, this is reflected in the concept labelled as OVI.

In total, three types of promoting factors for OVI are included in this study. As visualized in Figure 1, these are: (i) internal market-oriented culture (IMOC), (ii) organizational commitment (OC), and (iii) leadership autonomy support (LAS). IMOC, OC, and LAS represent three idiosyncratic levels of promoting factors: IMOC represents the organizational level. OC represents the individual level, and LAS represents the leadership level. Although, IMOC, OC, and LAS are distinctive, they are (as also visualized in Figure 1) suggested to be related to each other in promoting OVI.

As shown in Figure 1, OC, IMOC, and LAS are suggested to be directly related to employees’ OVI. In addition, it is assumed that the relationships between IMOC, LAS, and OVI are mediated through OC and the relationships between IMOC, OC, and OVI are mediated through LAS. The hypotheses used in this study are summarized in Table 1 and are further clarified in the following sections.

Organizational vision integration (OVI)

As mentioned in the Introduction, this study considers organizational vision from an employee perspective. In particular, it focuses on employees’ adoption and implementation of an organizational vision. These two elements (adoption and implementation) are together reflected in the concept of OVI, which is defined as “whether or not followers [employees] use the [organizational] vision as a guiding framework when making decisions and discretionary behaviors in their daily work roles” [2]. The adoption element is a cognitive aspect of OVI. It is about capturing employees’ attention and knowledge, e.g., whether employees are familiar with and accordingly actually “know and understand the [organizational] vision [2]. Although adoption (a cognitive aspect) is an important ingredient, it is not satisfactory on its own to fully understand what is meant by OVI in this study. To fully capture the idea of OVI, the concept also includes an implementation element, which is a behavioral aspect of OVI. Implementation is about the employees’ conscious use of organizational “vision as a guiding framework in their particular jobs” [2]. Consequently, it is the combination of adoption (a cognitive aspect) and implementation (a behavioral aspect) that constitutes the concept of OVI. It is important to recognize that OVI does not focus exclusively on any specific level within the organization (e.g., administrative level) nor is it directed towards any specific work role (e.g., frontline employees). In line with conventional ideas that organization vision should be diffused throughout the whole organization, the concept of OVI is relevant to all members of the organization. Thus, if OVI is present among the organization's individual members, it can potentially function as a powerful common and unifying guiding principle and a directional compass to all of the organization's employees independent of their respective work roles.

The next section continues with a discussion of the factors that are assumed to promote employees’ OVI.
Factors that promote employees’ OVI

Organizational commitment (OC)

Employees’ OC is assumed to be positively associated to employees’ OVI. As seen in Figure 1, OC is an individual-level promoting factor. Respectively, OC concerns the “strength of investment in an organization by its employees” [4]. OC can be divided into three components representing distinctive features of the employees’ investment in the organization, which are: affective, continuance, and normative commitment [5, 6]. In this study, however, OC is represented by the affective component. Compared to the other two types of commitment (i.e., continuance and normative commitment), the affective component of OC can be considered as the most beneficial or “good” type of OC. In this study, employees’ OC, as an affective type of commitment, is defined as a psychological state experiencing a “positive emotional attachment to the organization” [7]. Here, OC represents a positive tie or bond between the employees and the organization. Consequently, OC in this study is about the employees’ positive desire to be committed to their organization. The choice to limit the focus of this study to only include the affective component of OC is supported by previous research. According to Jafri [7], much research has “centered on the affective component” of OC [7].

In this study, it is supposed that employees’ OC is positively associated with their OVI. To perform OVI is not necessarily an easy task for employees, as it can sometimes be challenging and demanding. A main reason for this claim comes from the content and nature about what an organizational vision statement is really about. Kohles et al. observes that “vision statements may … represent an attempt to change employee behaviour” [2]. When considering how OVI is described and defined in this study, this implicitly involves both potential cognitive changes (i.e., the adoption element of OVI) and behavioral changes (i.e., the implementation element of OVI). OVI is therefore a relatively demanding work task for employees to perform. Consequently, employees must have an inner desire, a willingness, or motivation to actually engage themselves in the OVI “work.” Formal written employment contracts specifying and clarifying employees’ obligations and efforts within their work role normally do not include OVI. In contrast, OVI can be described as an extra-role effort, which is something that employees more or less voluntarily decide to be involved in because they “want to do it.” Consequently, as an inner mental psychological contract, OC could potentially have a positive influence on employees’ “effort on behalf of the employer” [8], such as the OVI “work.” Therefore, it can be presumed that employees who are affectively committed provides other employees with the necessary motivation to be involved in OVI. According to Chen et al., “employees who have a strong identification with their organization [affective commitment] … are likely to make their best effort to benefit the organization” [4]. It is likely that such employees’ “best effort” also includes the “work” embraced in OVI. Chang et al. describes affective commitment as an “employee’s emotional connection to the … goals of the organization” [9]. Thus, OVI is an important goal for the organization to achieve and implicitly connects employees’ OVI positively to their OC. Consequently, the more OC employees possess, as represented by their affective component, the more it should also promote the employees’ OVI. This leads to the following hypothesis:
Hypothesis 1: OC is positively related to OVI.

Internal market-oriented culture (IMOC)

As visualized in Figure 1, IMOC is related to employees’ OVI. In contrast to OC, however, the concept of IMOC is perceived as an organizational-level promoting factor: e.g., how employees perceive the organizational culture has a significant impact on their behavior [10]. In this study, the focus is on the most observable component of an organizational culture, i.e., norms and behavior [10], which are reflected in the IMOC. IMOC emerges from the internal market orientation within the marketing domain [11]. The principles or “core idea of IMOC is to treat employees as customers” [12]. Parallel to the idea that it is important for managers in an organization to understand the needs and wants of its external customers and respond in an appropriate manner to these needs, the concept of IMOC reflects the importance “for managers to recognize the needs and wants of employees [or what can be described as internal customers] and … respond to these needs and wants … relevant to employees’ working conditions” [12]. IMOC is about employees’ perception of the norm-based behavior of managers in the organization. IMOC consist of three closely related parts: (I) internal-market intelligence generation, (II) internal intelligence dissemination, and (III) response to internal intelligence [11]. Information is the common denominator both within and across each of the three parts that constitute the concept of IMOC. Specifically, internal-market intelligence generation (part I) concerns information collection about needs and wants. Internal intelligence dissemination (part II) “concerns communication between employees and their managers, as well as between managers of different departments in the organization” [12]. Finally, response to internal intelligence (part III) concerns the managers’ concrete action measures made on the basis of those needs and wants identified in part I (internal-market intelligence) and agreed upon in part II (internal intelligence dissemination). Naturally, for an organization to have a strong and powerful IMOC, all three IMOC parts must function well in tandem and be perceived as positive and beneficial by the organization’s employees.

Although, few studies have been undertaken in a health-care setting, the previous research literature shows that IMOC is positively associated with a variety of aspects of employees’ work roles, such as the employees’ level of engagement in their work role, employees’ perception of the attractiveness of their organization, and the level of service quality that employees provide to hospital patients [13]. Consequently, IMOC is an organizational motivational factor that can potentially promote employees’ level of effort in their work roles. In this study, it is expected that IMOC is also able to promote employees’ efforts regarding OVI. No previous research has examined the relationship between IMOC and OVI. However, the idea of a linkage between IMOC and OVI finds support within the job demands—resources model, which emphasizes how different resources in an work environment function as motivational factors that promotes employees to perform their work tasks [14]. As defined in this study, IMOC can be considered as a kind of a supportive organizational resource that positively motivates employees’ efforts, such to engage in OVI. As Wan et al. observed, “a supportive work environment [in this study, IMOC] … foster employees’ willingness to dedicate their effort and abilities to job tasks” [15]. Uniquely, in this study,
it is assumed that IMOC, as a type of organizational culture, pervades “all aspects of organizational life” [16], including the employees’ efforts for OVI. Consequently, when employees perceive the IMOC in their organization as favorable, it should positively promote employees’ OVI. Based on this, the following hypothesis is proposed:

**Hypothesis 2:** IMOC is positively related to OVI.

It is also assumed that IMOC can indirectly promote OVI when OC functions as a mediating factor in the relationship. OC is defined as employees’ “positive emotional attachment to the organization” [7]. The research literature has shown that employees’ emotions are always evoked by something [17]. In line with this, there must be a reason for why employees are positively emotionally attached to the organization (i.e., OC). In this study, the cause of OC is assumed to be IMOC. It is important to keep in mind that IMOC focuses “on more tangible or visible aspects of organizational culture that … hospital employees experience or observe daily” [12]. Because of the relatively “observable nature” of IMOC, there are good reasons to expect it to have a direct impact on employees’ OC. Although no study within the health-care services research literature has examined the relationship between IMOC and OC, previous research into the association between organizational culture and employees’ OC provides some support [18]. Naturally, there are variations in how employees perceive the IMOC of their organization, which ranges from highly positive to highly negative. However, when IMOC is positively perceived, it should strengthen the employees’ OC (emotional attachment). Furthermore, employees’ OC then increases because of their more favorable perception of IMOC, which should also lead to a positive reinforcement in their OVI. According to Lages and Piercy, those employees who are affectively committed are more motivated and willing to “go beyond the job specification” [19] to make extra effort and contribute positively to the organizational development. Accordingly, based on this finding, IMOC is capable of “fueling” employees’ OC, which subsequently positively triggers or encourages them to actively undertake the extra-role effort manifested in their OVI. This reasoning implies that OC has a mediating role between IMOC and OVI. The discussion above can be summarized into the following hypotheses:

**Hypothesis 3:** IMOC is positively related to OC.

**Hypothesis 4:** The relationship between IMOC and OVI is mediated by OC.

**Leadership autonomy support (LAS)**

Compared with OC (an individual-level promoting factor) and IMOC (an organizational-level promoting factor), LAS represents the leadership-level promoting factor for employees' OVI. Because of the central role that leaders have in the organization, in addition to their formal authority, leaders undoubtedly constitute a powerful influence on employees [20]. For many employees, leadership behavior is largely seen as a principal factor for their motivation and optimal performance at their workplace [21, 22]. In this study, these positive leadership aspects are embraced in the concept of LAS, which is a “leadership style that is thought to nurture the inner motivational resources of employees” [21]. LAS focuses on the
interpersonal relationship between employees and their leaders and how it is perceived from the employees’ perspective. LAS is manifested in interpersonal relationships when employees perceive their leader as a person who provides “a meaningful rationale for doing the tasks, emphasize[s] choice rather than control, and acknowledge[s] employees feeling and perspective” [23]. LAS is about the capability of leaders to inspire and encourage their employees in a positive manner to think and act autonomously. Implicitly, LAS mean the absence of leaders’ controlling behavior on employees. Consequently, LAS stimulates employees to actively use their freedom or autonomy to take initiative and make their own choices and decisions that are beneficial for the individual’s work role within the organization.

It is feasible to suspect that such initiative and choice facilitated by LAS is related to the employees’ OVI. As noted in the previous discussion, OVI is about the employees’ use of organizational vision as a “guiding framework when making decisions and discretionary behaviors in their daily work roles” [2]. As OVI includes both a cognitive aspect (adoption of vision) as well as a behavioral aspect (implementation of vision), it is a relatively demanding and complex task to perform. In addition OVI is an extra-role effort that employees make because “they want to” and not because “they have to.” To achieve OVI, employees need a “reservoir” that includes both autonomy and motivation (i.e., autonomous motivation) to initiate the necessary cognitive and behavioral changes embraced by OVI. In the literature, LAS is closely related to employees’ autonomous motivation [23]. Consequently, LAS is considered to provide employees with the necessary ingredients for generating and nurturing their OVI. Similarly to how a supportive work environment can promote employees’ motivation to dedicate the necessary effort in their work role [24], LAS is expected to be capable of positively promoting employees’ work efforts as manifested in their OVI. Thus, the following hypothesis is proposed:

Hypothesis 5: LAS is positively related to OVI.

As also visualized in Figure 1, LAS is suggested to promote OVI in an alternative manner. In particular, the way employees perceive their employer, as represented by their OC, functions as a mediating factor between the employees’ perception of LAS and their OVI. Previous research supports that employees’ sense of autonomy, reflected in their perception of control and decision-making authority in their work role, is positively related to employees’ OC [25]. Therefore, in situations where employees perceive or experience the LAS practice as positive, it should “fuel” or strengthen employees’ OC. Prior studies have shown that LAS and OC (defined as affective commitment) are positively related [9]. Consequently, when employees’ OC increases (employees’ affective commitment) as a result of their positive perception of LAS, it should also strengthen or reinforce their motivation to do what is in the best interest to develop their organization. Therefore, this effect of strengthening employees’ OC because of LAS is related to their willingness to undertake the extra-role effort or “work” regarding OVI. Previous research found that OC (defined as employees’ affective commitment) positively promotes beneficial job-related outcomes [26] and employees’ efforts to “go beyond job specification” [19]. This reasoning suggests that OC plays a mediating role between LAS and OVI. Based on this, the following two hypotheses are proposed:

Hypothesis 6: LAS is positively related to OC.
Hypothesis 7: The relationship between LAS and OVI is mediated by OC.

Leadership is “among the most dominant factors” influencing employees [12]. However, the way a leadership style is executed is always embedded within a bigger organizational context. Thus, it is expected that the leadership style in this study, represented by LAS, operates in a symbiosis where LAS is affected by and affects other relevant factors within the sphere of the organizational context. This study attempts to reveal what role LAS seems to play within an organizational context in relation to IMOC, OC, and OVI. Notably, which is also visualized in Figure 1, this study explores whether LAS acts as a mediating factor between IMOC (organizational level) and employees’ OC and OVI (individual level). To the best of our knowledge, few studies within the health-care services research literature have examined these relationships.

A basic or fundamental premise for suggesting LAS as a mediating factor is that it is changeable. Accordingly, LAS is not a static construct; it is dynamic but controllable and manageable. Thus, IMOC is capable of managing LAS. IMOC is about how employees perceive their organization and in particular reflects their perception of how well “managers recognize the needs and wants of employees and … respond to these needs and wants … relevant to employees’ working conditions” [12]. Considering its nature and content, IMOC can be expected to impact how employees experience their supportiveness regarding autonomy from their leaders (i.e., LAS). With its strong focus on understanding employees’ needs and wants, IMOC can be described as a type of supportive organizational culture. Consequently, it is reasonable to presume a close relationship between IMOC and LAS.

Most employees do not prefer leaders who focus on control. In contrast, employees appreciate leaders who give them freedom and support them to act autonomously within their work role. Consequently, in an organization where there exists a strong and positive IMOC, leaders would naturally respond to employees’ needs and wants about autonomy. Therefore, IMOC in organizations provides leaders with behavioral norms and serves as a kind of mental guide or inner map for how to perform LAS behavior in their organization. This impact of organizational culture on leadership behavior is in line with findings in the research literature. For example, Banaszak-Holl et al. stresses the importance of organizational culture and describes it as a “key mechanism by which top management integrate managerial actions” [16]. Studies have positively correlated organizational culture and leadership behavior [27, 28]. Employees’ perceptions of IMOC in their organization varies from strongly negative to strongly positive; however, this study takes a positive perspective when studying the impact of IMOC. Especially, because of the dynamic nature of LAS, it is assumed that IMOC is capable of positively managing LAS. Consequently, when LAS increases because of employees’ more favorable perceptions of IMOC, this should also lead to having employees that are more affectively committed to their organization (i.e., OC). Furthermore, an increase in LAS because of IMOC should also simultaneously positively stimulate and promote employees to put more of their inner motivation, energy, and effort to dedicate themselves to do what is good and beneficial to their organization, including involving oneself in extra-role work efforts related to OVI. Consequently, it is expected that employees’ perception of LAS operates as a mediating
factor between IMOC and employees’ OC and OVI. Thus, the mediating role of LAS constitutes the two final hypotheses proposed in this study:

**Hypothesis 8:** LAS mediates the relationship between IMOC and OC.

**Hypothesis 9:** LAS mediates the relationship between IMOC and OVI.

**Methods**

This study aimed to examine the factors that promote hospital employees’ OVI. The director of research (DOR) at a hospital organization and also a member of the largest health expert communities situated in the inland counties of Norway was contacted. The hospital organization has more than 10,000 employees. After accepting the invitation, the DOR disseminated all the information about the survey to the division managers, staff unit, and department managers at the hospital. A cross-sectional survey was used to collect the employees’ data. Several pretests were performed to ensure the quality of the items included in the survey. In addition, the survey was discussed with two academic professionals to ensure its overall quality. The DOR agreed to also contribute in the process to distribute the survey. First, the survey was distributed to division managers and department managers, who forwarded it to their employees. In total, 2000 hospital employees were invited to participate. Of these, 1008 hospital employees returned complete questionnaires to make up a response rate of 50.4%. Table 2 summarizes the personal characteristics of the study sample.

**Instruments**

The proposed conceptual model (Figure 1) includes four constructs: i.e., OVI, OC, IMOC, and LAS. Although all claims for each construct were based on previous research, it was necessary to adapt them to become more relevant and appropriate to those working in a health-care setting. A 7-point Likert scale ranging from (1) strongly disagree to (7) strongly agree was used for all items. The items included in the concept of OVI were adopted from Liu [29] and Slåtten and Mehmetoglu [30]. The items representing the concept of OC were adopted from Allen and Meyer [5]. The items used to capture the concept of LAS were adopted from Amundsen [31]. IMOC was measured using items from Slåtten et al. [13]. The items used in this study are part of a larger project focusing on different aspects of employee relations in hospital organizations. Table 3 shows the items for the four concepts used for this study.

**Data analysis**

Using SmartPLS 3 software, partial least-squares structural equation modelling (PLS-SEM) was used to test the hypotheses leading this study [32]. The first step in evaluating PLS-SEM results involved examining the measurement model, consisting of only reflective measures. The second step was to
assess the structural model. Based on the PLS-SEM results, the mediating effects were also estimated and analyzed using the bootstrapping test by Zhao et al. [33].

Results

Measurement model

To assess the reflective measurement model, we examined convergent validity, internal consistency reliability, and discriminant validity. Convergent validity is the extent to which a variable is positively correlated with alternative variables used to measure the same construct. The construct can be judged by the internal consistency, assessed by the magnitudes of the intercorrelations of the observed variables. Discriminant validity is the extent to which a construct is distinct from other constructs, assessed with the heterotrait–monotrait (HTMT) ratio of correlations between constructs. The evaluations of the results for convergent validity, internal consistency, and discriminant validity set out in Table 4 all satisfy the “rule of thumb” criteria by Hair et al. [34–36], which supports the view that we have a reliable and valid measurement model.

Structural model

Before we assessed the structural model, we examined the multicollinearity between the latent constructs using the variance inflation factor (VIF). VIF values >5 indicate multicollinearity issues [36]. All VIF values were <4, indicating no multicollinearity problems.

The direct effects in the structural model are shown in Figure 2. For the endogenous constructs, we examined the in-sample predictive power of the model using $R^2$. The values for OC and OVI were 0.38 and 0.25, respectively. Based on the “rule of thumb” [34, 36], these $R^2$ values were considered moderate. All the standardized direct-path coefficients were statistically significant at the 1% significance level. The path coefficient between IMOC and LAS was the highest at 0.87, and the second-highest path coefficient of 0.35 was between LAS and OC. The relationship between OC and OVI was positive ($\beta = 0.26$), supporting H1. H2 and H3 were also supported because the relationships between IMOC and OVI and between IMOC and OC were positive ($\beta = 0.16$ and $\beta = 0.29$, respectively). LAS was positively related to OVI ($\beta = 0.15$), supporting H5. Finally, there was a positive relationship between LAS and OC ($\beta = 0.38$), supporting H6.

To test the mediating effect of the models, we applied a bootstrapping test by Zhao et al. [33] to assess whether the estimated direct and indirect effects were statistically significant. Given these effects were statistically significant or not, we could then determine which if any of the following effects exist: direct effects only—without mediation; no-effect nonmediation; complementary mediation; competitive mediation (direct and indirect effects are significant, but opposite direction); or indirect-only mediation.

The results for the various hypotheses are presented in Table 5.
Table 5 shows that OC had significantly positive direct and indirect effects in addition to a complementary mediating effect on the relationship between IMOC and OVI, supporting H4. OC was also found to complementarily mediate the relationship between LAS and OVI (with both significantly positive direct and indirect effects), supporting H7. There was a significantly positive direct effect between IMOC and OC, and a significantly positive indirect effect of LAS between IMOC and OC, implying a complementary mediating effect, supporting H8. LAS was also shown to have a significantly positive indirect effect and a complementary mediating effect between IMOC and OVI, supporting H9.

Discussion

According to Foster and Akdere, “individual perception of vision is important because it is the individuals within the organization who actually put the vision into action” [37]. This study contributes to our understanding of organizational vision by examining the premises or motivating factors that potentially stimulate and promote hospital employees to put the organizational vision into (real) action. As mentioned previously, this study is among the pioneering studies within the health-care services research literature to focus on OVI. Specifically, it responds to a recent call for more research on the concept of employees’ OVI in health-care organizations [3, 38]. In addition to undertaking more research on the concept of OVI, the study offers three other contributions: (i) studying organizational vision from an employee perspective, which is an area of research that has been relatively neglected in the previous research literature [2]; (ii) revealing how different levels of factors (i.e., leadership, individual, and organizational levels) are capable of promoting employees’ OVI; (iii) exploring the underlying pattern of relationships for how different levels of factors both affect each other as well as functioning in tandem to promote employees’ OVI.

The main concept in this study, OVI, refers to employees’ use of organizational vision “as a guiding framework when making decisions and discretionary behaviors in their daily work roles” [2]. The findings reveal that the direct impact of OC was almost double compared with the individual impacts of IMOC and LAS. Clearly, this stresses the importance of OC to stimulate employees’ OVI. As a positive affective component, OC is about employees’ “emotional attachment to the organization” [7]. Consequently, when employees have good feelings towards their organizations and are emotionally connected to it, they are more willing to devote time, energy, and personal efforts to be involved in OVI. There is scarce research that examines the relationship between employees’ OC and OVI within the health-care services research literature. The findings in this study were previously supported by two studies. Although they were undertaken in other organizational contexts, they share some common features to the ideas and concepts included in our study. In their study of 455 working teams within the food-service industry in South Korea, Chai et al. [39] examined the link between employees’ OC, which was defined as affective commitment (similar to this study), and a concept they described as “shared vision” [39]. The concept of shared vision was defined as “the collective understanding of an organization’s vision, mission and core values among member of a group” [39]. Although, Chai et al. [39] studied shared vision as a “collective understanding” and not on the “individual level” as done in this study, they found empirical support for a link between employees’ OC and shared organizational vision. Dvir et al. [40] also defined employees’ OC
as affective commitment (similar to our study) and linked it to what they called “vision assimilation.” Vision assimilation was studied as “employees’ perceptions of vision clarity, sharedness, and appropriateness” [40]. Based on the data collected from 183 employees employed in six Israeli high-technology firms, Dvir et al. [40] found support for a link between OC and vision assimilation. It is interesting to note that the study by Dvir et al. [40] also examined the impact of the opposite type of OC on vision assimilation. As an affective commitment, OC is emotional and focuses on employees’ positive feelings and bonds towards their organization. In contrast, as a cognitive commitment, OC rationally reflects a “calculative dimension [of OC] of the linkage between employees and their organization.” Consequently, simply stated, Dvir et al. [40] tested the impact of both a “warm” type of OC (i.e., affective commitment) as well as a “cold” type of OC (i.e., cognitive commitment). Dvir et al. [40] revealed that only the “warm” type of OC was related to vision assimilation and the “cold” type of OC was unrelated to vision assimilation. In this study, OC focused on only including the “warm” type of employee commitment. An implication based on the positive relationship between OC and OVI is the importance for hospital managers to focus on how to strengthen their employees’ “warm type” of OC (i.e., affective commitment) because it is capable of promoting employees’ OVI. This recommendation to focus on employees’ affective OC is in line with Ryi, who observed that “in prior research, affective commitment has shown to have the strongest and most favorable relations with organization-relevant and employee-relevant outcomes” [41]. Consequently, hospital managers should note that the higher level of “warm” OC among hospital employees, the higher it potentially promotes their level of OVI.

In previous research studies, OC was defined as employees’ affective OC and proposed to be associated with value congruence and person-organization fit [41]. Person-organization fit is about the “congruence between norms and values of organizations and the values of persons” [42]. This value congruence could emerge from employees’ perceptions of organizational goals, climatic conditions, cultural aspects, or other organizational aspects that employees appreciate and consider of high personal value. Consequently, based on how OC is defined in this study as employees’ “positive emotional attachment to the organization” [7], it is plausible that employees’ value congruence towards their organization is embedded in and reflected through their level of OC. This contributes to explain why OC was the most dominant factor to promote employees’ OVI compared with IMOC and LAS in this study. Ryi supports this reasoning: “when employees perceive higher value congruence with their organization, they are more likely to feel integrally involved with the vision of the organization” [41]. The findings from this study indicates that employees’ OVI is promoted predominantly through their OC. Put another way (Figures 1 and 2), OVI is driven primarily from an individual-level promoting factor.

Although OC was undoubtedly the most dominant factor to promote OVI ( = 0.26), this is not to say that organizational-level promoting (IMOC) or leadership-level promoting (LAS) factors are unimportant or not interesting. Although they show less impact than OC, both IMOC and LAS were found to have a direct impact on OVI ( = 0.16 and, = 0.15, respectively). Collectively, the three promoting factors explained 25% of the variance of OVI. Consequently, hospital managers should be aware that how their employees perceive the IMOC and LAS in their hospital organization affects whether or not they are willing to work
on their OVI. However, the role and value of IMOC and LAS becomes highly visible, especially when considering their indirect impact on employees’ OVI.

As emphasized previously, employees’ OC is a primary promoting factor for their OVI. OC can be described as a psychological state [43] and not a fixed trait in a person. Consequently, because OC is a psychological state, it indicates that OC is dynamic and potentially varies as time passes depending on the influence or impact of environmental or contextually relevant factors, such as leadership and organizational-related factors. This implies that employees’ OC can potentially be managed and “controlled” by the organization. The findings from this study suggest that both IMOC and LAS are highly influential and capable of managing OC (\(= 0.29\) and, \(= 0.35\), respectively). IMOC and LAS were found to explain almost 40% of the variance in OC (\(\eta\)), which can be considered as substantial explanatory power. Clearly, both IMOC and LAS are essential “fuel” ingredients that hospital managers can use to “warm up” their employees’ OC (i.e., affective commitment). Thus, in more formal terms, IMOC and LAS can be used to intentionally manage and change employees’ OC in hospital organizations in a desirable and positive direction.

However, the impact of IMOC and LAS is not limited to its direct impact on OC. Based on the sophisticated statistical tests for mediation suggested by Zhao et al. [33], the IMOC and LAS in all mediation tests turned out to be what Zhao et al. [33] describes as “complementary mediation.” According to Zhao et al. [33], a complementary mediation indicates the presence of both direct and mediating effects where they “exist and point at the same direction.” Consequently, complementary mediation implies that IMOC and LAS, in addition to having a direct impact on OC, simultaneously are capable of promoting OVI indirectly through OC. Furthermore, in the literature, organizational culture is proposed to be something that pervades “all aspects of organizational life” [16]. The findings from this study using IMOC to capture organizational culture supports the all-encompassing impact of culture. In addition to its multiple direct and indirect impacts described in the previous discussion regarding OVI and OC, the significant direct impact of IMOC strengthens LAS in the hospital organization (\(= 0.87\)) as well as the capability of IMOC to have indirect impact on OC and OVI through LAS. Based on Zhao et al.’s [33] mediation test, this indirect impact was also found to constitute a “complementary mediation.” Consequently, an practical implication of this result is the importance of hospital managers to continuously track how their employees perceive the IMOC and LAS in their organization as they both individually and collectively together with OC directly promote OVI while they simultaneously in multiple ways also indirectly are capable of promoting OVI through the employees’ OC and LAS.

**Limitations and future research**

Studies on the concept of organizational vision within the health-care services research literature are relatively scarce; therefore, there is an urgent need for more substantial research into this important research domain.
This study focused on a single hospital organization. Although it was large in size, there are limitations connected to studying a single organization in terms of generalizability and robustness. Additional limitations are found in the study’s cross-sectional design, which subject its results to self-selection bias and inference of causality. Therefore, it is advised that future research studies gather data at distinctive time periods, while exploring the potential of a causal relationship among the studied factors.

As shown in this study, the individual-level factor of the OC was the most dominant aspect for promoting OVI. Consequently, based on this finding, future research should go more in depth to explore other potential individual-level factors and their relationship with OVI. As indicated in the previous discussion, one potential reason for the strong impact of OC and OVI could be that employees’ higher level of OC was also inserted with a higher level of value congruence between employees and their organization. According to Ryu, those employees “who perceive higher value congruence with their organizations are more likely to accept organizational vision” [41]. Future research should strive to identify those common values or constellation of values that employees appreciate and perceive as good, and they are congruent with their organizations. Collecting data about employees’ value congruence would contribute to reveal whether this individual-level promoting factor in addition to OC is capable to positively increase the level of explained variance in employees’ OVI.

Kantabutra and Avery commented that “in today’s corporate world, we can observe that vision statements appear with a wide variety of characteristics” [44]. Hospital organizations are no exception; therefore, there is a need to understand what does a “powerful” vision look like? [44]. In doing this, one should, in line with this study, take an employee perspective revealing what Zaccaro and Banks call “self-identification with vision” [45]. As such, the focus on the impact of vision statement to promote OVI could also be studied simultaneously with employees’ level of value congruence as well as employees’ OC and perception of IMOC and LAS.

Although, the literature describes several aspects should be considered and what a vision “must have,” e.g., clarity, future orientation, challenge, conciseness, ability to inspire [46], and so forth, we do know to what extent how much the fulfillment of either individual aspects or constellations of these concrete aspects that constitute an organizational vision statement are capable of promoting OVI among hospital employees. Identifying such potential promoting aspects of a vision would contribute practical implications for hospital leaders as to how they can best increase the effectiveness and efficiency regarding their employees’ OVI.

**Conclusions**

This study contributes to our understanding of how to promote employees’ OVI in hospital organizations. The study reveals that to successfully promote OVI, hospital managers should especially focus on their employees’ OC and strengthen their employees’ OC through building a constructive IMOC in their organization while simultaneously having leaders who practice LAS. This contributes both directly as well as indirectly to promoting the employees’ OVI in hospital organizations.
Abbreviations

AVE Average variance extracted; DOR Director of Research; HTMT Heterotrait–monotrait; IMOC Internal market-oriented culture; LAS Leadership autonomy support; NSD Norwegian Centre for Research Data; OC Organizational commitment; OVI Organizational vision integration; PLS-SEM Partial least-squares structural equation modeling.

Declarations

Ethics and consent to participate

This study was approved by the Norwegian Center for Data Research (NSD) (project number 239029). The NSD is a resource center and ethics committee for academic research in Norway. In addition, the study was approved by the Data Protection Office of the hospital organization included in this study. All methods were carried out in accordance with relevant guidelines and regulations. In accordance with the Personal Data Act §§2-7 and 8 no. 1, the participants were given written information about the project. Informed consent was obtained from all participants. Participants gave their consent by choosing to actively participate in the study by answering the online questionnaire.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

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Availability of data and material

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Authors’ contributions
TS led the development of the questionnaire and the main draft of this manuscript. GL contributed to the development of the questionnaire, statistical analysis, and data interpretation, and gave input to the manuscript. BRM contributed to the development of the questionnaire and data collection, and gave input to the manuscript. All three authors approved the final draft.

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References

1. Slåtten T, Mehmetoglu M. Antecedents and effects of engaged frontline employees – A study from the hospitality industry. Manag Serv Qual. 2011;21(1):88–107.
2. Kohles JC, Bligh MC, Carsten MK. A follow-centric approach to the vision integration process. Leadersh Q. 2012;23(3):476–487.
3. Slåtten T, Mutonyi BR, Lien G. Does organizational vision really matter? An empirical examination of factors related to organizational vision integration among hospital employees. BMC Health Serv Res. 2020. DOI: 21203/rs.3.rs-97445/v1
4. Chen SY, Wu WC, Chang CS, Lin CT, Kung JY, Weng HC, Lin YT, Lee SI. Organizational justice, trust, and identification and their effects on organizational commitment in hospital nursing staff. BMC Health Serv Res. 2015;15:363.
5. Allen NJ, Meyer JP. The measurement and antecedent of affective, continuance and normative commitment to the organization. J Occup Psychol. 1990;63(1):1–18.
6. Wasti SA. Commitment profiles: Combinations of organizational commitment forms and job outcomes. J Vocat Behav. 2005;67(2):290–308.
7. Jafri, MH. Organizational commitment and employee's innovative behavior. J Manag Res. 2010;10(1):62–68.
8. Lee C, Liu J, Rousseau DM, Hui C, Chen ZX. Inducements, contributions, and fulfillment in new employee psychological contracts. Human Res Manag. 2011;50(2):201–226.
9. Chang Y, Leach N, Anderman EM. The role of perceived autonomy support in principals’ affective organizational commitment and job satisfaction. Soc Psychol Educ. 2015;18(2):315–336.
10. Hogan SJ, Coote LV. Organizational culture, innovation and performance: A test of Schein’s model. J Bus Res. 2014;67(8):1609–1621.
11. Gounaris SP. Internal-market orientation and its measurement. J Bus Res. 2006;59(49):432–
12. Slåtten T, Lien G, Lupina E, Gravingen KA. Promoting an internal market-oriented culture (IMOC) in healthcare services. J Serv Sci Res. 2019;11(2):157–182.
13. Slåtten T, Lien G. Svenkerud PJ. The role of organizational attractiveness in an internal market-oriented culture (IMOC): A study of hospital frontline employees. BMC Health Serv Res. 2019;19:307.
14. Bakker AB, Demerouti E. The job demands-resources model: State of the art. J Manag Psychol. 2007;22(3):309-328.
15. Wan Q, Li Z, Zhou W, Shang S. Effects of work environment and job characteristics on the turnover intention of experienced nurses: The mediating role of work engagement. J Adv Nurs. 2018;74(6):1332–1341.
16. Banaszak-Holl J, Castle NG, Lin MK, Shrivastwa N, Spreitzer G. The role of organizational culture in retaining nursing workforce. Gerontologist. 2015;55(3):462–471.
17. Slåtten T. Emotions in service encounter from the perspectives of employees and customers (Doctoral dissertation). Karlstad: Universitetstrykkeriet, Karlstad University, 2011.
18. Nikpour A. The impact of organizational culture on organizational performance: The mediating role of employee’s organizational commitment. Int J Organ Leadersh. 2017;6:65–72.
19. Lages CR, Piercy NF. Key drivers of frontline employee generation of ideas for customer service improvement. J Serv Res. 2012;15(2):215–230.
20. Yukl G. Leadership in organizations. Upper Saddle River, NJ: Prentice-Hall, 2002.
21. Slemp GR, Kern ML, Patrick KJ, Ryan RM. Leadership autonomy support in the workplace: A meta-analytic review. Motiv Emot. 2018;42:706–724.
22. Gilbert N, Kelloway EK. Leadership. In M. Gagné (Ed.), The Oxford handbook of work engagement, motivation, and self-determination theory (pp. 181–198). New York: Oxford University Press, 2014.
23. Gillet N, Gagné M, Sauvagère S, Fouquereau E. The role of supervisor autonomy support, organizational support, and autonomous and controlled motivation in predicting employees’ satisfaction and turnover intention. Eur J Work Organ Psychol. 2013; 22(4):450–460.
24. Ryan RM, Deci EL. Overview of self-determination theory: An organismic dialectical perspective. In EL Deci & RM Ryan (Eds.), Handbook of self-determination research (pp. 3–33), Rochester, NY: University of Rochester Press, 2002.
25. Mathieu JE, Zajac DM. A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. Psychol Bull. 1994;108(2):171–194.
26. Morrow P. Managing organizational commitment: Insights from longitudinal research. J Vocat Behav. 2011;79(1):18–35.
27. Tsai Y. Relationship between organizational culture, leadership behavior and job satisfaction. BMC Health Serv Res. 2011;11:98.
28. Casida JJ, Pinto-Zipp G. Leadership-organizational culture relationship in nursing units of acute care hospitals. Nurs Econ. 2008;26(1):7–15.
29. Liu CM. The effect of organizational vision on service quality delivery. Serv Ind J. 2006;26(8):849–859.

30. Slåtten T, Mehmetoglu M. What are the drivers for innovative behavior in frontline jobs? A study of the hospitality industry in Norway. J Hum Resour Hospit Tourism. 2011;10(3):254–272.

31. Amundsen S. Empowerment i arbeidslivet - Et myndiggjøringsperspektiv på ledelse, selvledelse og medarbeiderskap. Oslo: Cappelen Damm Akademisk, 2019.

32. Ringle CM, Wende S, Becker J-M. SmartPLS 3. Boenningstedt: SmartPLS GmbH, 2015.

33. Zhao X, Lynch JGJ, Chen Q. Reconsidering Baron and Kenny: Myths and truths about mediation analysis. J Consum Res. 2010;37(2):197–206.

34. Hair JF, Hult GTM, Ringle CM, Sarstedt M. A primer on partial least squares structural equation modeling (PLS-SEM), 2nd London: SAGE, 2017.

35. Hair Jr. JF, Sarstedt M, Ringle CM, Gudergan, SP. Advanced issues in partial least squares structural equation modeling. London: SAGE, 2018.

36. Hair Jr., JF, Risher JJ, Sarstedt M, Ringle CM. When to use and how to report the results of PLS-SEM. Eur Bus Rev. 2019;31(1):2–24.

37. Foster RD, Akdere M. Effective organizational vision: implications for human resource development. J Eur Ind Train. 2007;31(2):100–111.

38. Slåtten T, Mutonyi BR, Lien G. The impact of individual creativity, psychological capital, and leadership autonomy support on hospital employees’ innovative behavior. BMC Health Serv Res. 2020;20:1096.

39. Chai DS, Hwang SJ, Joo KB. Transformational leadership and organizational commitment in teams: The mediating roles of shared vision and team-goal commitment. Perform Improv Q. 2017;30(2):137–159.

40. Dvir T, Kass N, Sharmir B. The emotional bond: vision and organizational commitment among high-tech employees. J Organ Chang Manag. 2004;17(2):126–143.

41. Ryi G. The missing link of value congruence and its consequences: The mediating role of employees acceptance of organizational vision. Public Pers Manag. 2015;44(4):473–495.

42. Chatman JA. Improving interactional organizational research: A model of person-organization fit. Acad Manage Rev. 1989;14(3):333–349.

43. Allen NJ, Meyer JP. Affective, continuance, and normative commitment to the organization: An examination of construct validity. J Vocat Behav. 1996;49(3):252–276.

44. Kantabutra S, Avery GC. The power of vision: Statements that resonate. J Bus Strategy. 2010;31(1):37–45.

45. Zaccaro SJ, Banks D. Leadership, vision, and organizational effectiveness. In SJ Zaccaro & RJ Klimoski (Eds.), The nature of organizational leadership: Understanding the performance imperatives confronting today's leader (pp. 181–218). San Francisco, CA: Jossey-Bass, 2001.

46. Kantabutra S. What do we know about vision? J Appl Bus Res. 2008;24(2):127–138.
Tables

Table 1 Hypotheses used in this study.

| Hypothesis | Hypothesized relationships |
|------------|----------------------------|
| H1         | OC is positively related to OVI |
| H2         | IMOC is positively related to OVI |
| H3         | IMOC is positively related to OC |
| H4         | The relationship between IMOC and OVI is mediated by OC |
| H5         | LAS is positively related to OVI |
| H6         | LAS is positively related to OC |
| H7         | The relationship between LAS and OVI is mediated by OC |
| H8         | LAS mediates the relationship between IMOC and OC |
| H9         | LAS mediates the relationship between IMOC and OVI |

Note: IMOC Internal market-oriented culture, LAS Leadership autonomy support, OC Organizational commitment, OVI Organizational vision integration.

Table 2 Personal characteristics of the study sample (N = 1008).
|                          | %  |
|--------------------------|----|
| **Sex**                  |    |
| Female                   | 73.0 |
| Male                     | 27.0 |
| **Staff role**           |    |
| Nurse                    | 33.0 |
| Doctor                   | 8.7 |
| Others (admin staff, other health professionals, etc.) | 58.3 |
| **Duration of employment** |    |
| <5 years                 | 26.9 |
| 6–10 years               | 18.0 |
| 11–20 years              | 30.3 |
| >20 years                | 24.8 |
| **Part-time or full-time job** |  |
| Part-time                | 22.5 |
| Full-time                | 77.5 |
| **Age**                  |    |
| <45 years                | 37.3 |
| 46–55 years              | 32.2 |
| >55 years                | 30.5 |

**Table 3** Constructs (i.e., IMOC, LAS, OC, and OVI) and claims used in the study.
| Construct | Claims label | Claims |
|-----------|--------------|--------|
| IMOC      | IMOC1        | Employees have the opportunity to discuss their needs with management. |
|           | IMOC2        | Training is seen in the context of individual needs. |
|           | IMOC3        | Management spends time talking to their employees when needed. |
|           | IMOC4        | Management wants employees to enjoy their work. |
|           | IMOC5        | Management shows a sincere interest in any problems faced by employees. |
|           | IMOC6        | Management understands that personal problems may affect my performance. |
|           | IMOC7        | The division's policies help meet employees' individual needs. |
|           | IMOC8        | Management meets regularly to discuss issues related to employees' challenges. |
| LAS       | LAS1         | My leader gives me authority over issues within my area. |
|           | LAS2         | My leader listens to me. |
|           | LAS3         | My leader encourages me to take initiative. |
|           | LAS4         | My leader is concerned that my work is goal-oriented. |
|           | LAS5         | My leader instils motivation. |
| OC        | OC1          | I am proud to tell others that I work here. |
|           | OC2          | I feel I belong to this organization. |
|           | OC3          | I feel personally attached to my organization. |
|           | OC4          | I envision a career at this organization. |
|           | OC5          | I want to continue my career here. |
| OVI       | OVI1         | The management has informed me about the company's vision and aim. |
|           | OVI2         | I am familiar with the organization's vision and aim. |
|           | OVI3         | I am conscious of doing my job in line with the company's vision and aim. |

Note: IMOC Internal Market-Oriented Culture, LAS Leadership autonomy support, OC Organizational commitment, OVI Organizational vision integration.

Table 4 Results of the measurement model for the IMOC, LAS, OC, and OVI constructs.
| Construct  | Claims label | Convergent validity | Internal consistency reliability | Discriminant validity |
|------------|--------------|---------------------|---------------------------------|-----------------------|
|            |              | Indicator reliability | AVE | Composite reliability | Cronbach's alpha | HTMT criterion |
| Rule of thumb | Loading >0.7 | >0.5 | 0.7–0.95 | 0.7–0.95 | HTMT interval does not include 1 |
| IMOC       |              | 0.84               | 0.73 | 0.95 | 0.95 | Yes |
| IMOC2      |              | 0.76               | 0.73 | 0.95 | 0.95 | Yes |
| IMOC3      |              | 0.89               | 0.73 | 0.95 | 0.95 | Yes |
| IMOC4      |              | 0.86               | 0.73 | 0.95 | 0.95 | Yes |
| IMOC5      |              | 0.90               | 0.73 | 0.95 | 0.95 | Yes |
| IMOC6      |              | 0.84               | 0.73 | 0.95 | 0.95 | Yes |
| IMOC7      |              | 0.82               | 0.73 | 0.95 | 0.95 | Yes |
| IMOC8      |              | 0.90               | 0.73 | 0.95 | 0.95 | Yes |
| LAS        |              | 0.83               | 0.80 | 0.95 | 0.94 | Yes |
| LAS2       |              | 0.92               | 0.80 | 0.95 | 0.94 | Yes |
| LAS3       |              | 0.93               | 0.80 | 0.95 | 0.94 | Yes |
| LAS4       |              | 0.85               | 0.80 | 0.95 | 0.94 | Yes |
| LAS5       |              | 0.92               | 0.80 | 0.95 | 0.94 | Yes |
| OC         |              | 0.86               | 0.72 | 0.93 | 0.90 | Yes |
| OC2        |              | 0.88               | 0.72 | 0.93 | 0.90 | Yes |
| OC3        |              | 0.84               | 0.72 | 0.93 | 0.90 | Yes |
| OC4        |              | 0.84               | 0.72 | 0.93 | 0.90 | Yes |
| OC5        |              | 0.83               | 0.72 | 0.93 | 0.90 | Yes |
| OVI        |              | 0.90               | 0.81 | 0.93 | 0.88 | Yes |
| OVI2       |              | 0.92               | 0.81 | 0.93 | 0.88 | Yes |
| OVI3       |              | 0.87               | 0.81 | 0.93 | 0.88 | Yes |

Note: AVE Average variance extracted, HTMT Heterotrait–monotrait ratio of correlations, IMOC Internal market-oriented culture, LAS Leadership autonomy support, OC Organizational commitment, OVI Organizational vision integration.
Table 5 Test of mediating effects\(^{c}\) for LAS and OC.

| Hypothesis | Effect\(^{a}\) | Mediating factor | Direct effect\(^{a}\) | Indirect effect\(^{a}\) | Mediating effect\(^{b}\) |
|------------|----------------|-----------------|---------------------|------------------------|-------------------------|
| H4         | IMOC ® OVI     | OC              | 0.157***            | 0.154***               | Complementary           |
| H7         | LAS ® OVI      | OC              | 0.153***            | 0.091***               | Complementary           |
| H8         | IMOC ® OC      | LAS             | 0.288***            | 0.075***               | Complementary           |
| H9         | IMOC ® OVI     | LAS             | 0.157***            | 0.214***               | Complementary           |

\(^{a}\) ** p < 0.05, *** p < 0.01 are significance levels.

\(^{b}\) The effect between IMOC and OVI (H4) was influenced twice by the mediating factor OC, and we have a double-mediation analysis [34]. The same applied for the effect between IMOC and OVI and the mediating factor LAS (H9). The total indirect effect is then the sum of the specific indirect effects.

\(^{c}\) Mediation by bootstrapping method [33].