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Exploring Climate for Innovation in the Telecommunications Industry in an Emerging Market Context

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Abstract Innovation management has aroused interest of practitioners and researchers in recent years. It is crucial for organisations to create and foster a climate for innovation to enhance employees' innovativeness. It is important to identify the practices, policies and procedures that enable organisations to implement new ideas. Thus, the aim of this research is to investigate and identify dimensions of climate for innovation within an emerging market, namely the Egyptian telecommunications industry. This study contributes to the innovation management literature by identifying further dimensions of climate for innovation that foster organisation innovativeness in a real-life setting.

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1. Introduction

The interest in innovation management is growing among practitioners and academics alike [1]. Innovation is considered as a competitive tool for organisation's long term performance and an important means for adapting to the needs of a changing and evolving business environment [2]. Therefore, it is crucial for organisations to create and foster an innovative work environments. By fostering a climate for innovation, employees are encouraged to be innovative, leading to the production of innovative outcomes [3,4]. The extent to which an employee generates and implements new ideas depends on the climate for innovation in the organisation [5]. It is important to identify the practices, policies and procedures that enable organisations to implement new ideas [6]. Thus, the aim of this research is to investigate and identify dimensions of climate for innovation within an emerging market, namely the Egyptian telecommunications industry.

This study contributes to the innovation management literature by identifying further dimensions of climate for innovation that foster organisation innovativeness in a real-life setting. There is scant research on the relationship between climate for innovation and implementation of new ideas, i.e. organisation innovativeness [5,7,8,9,10]. Most studies conceptualise climate for innovation in terms of certain variables or determinants. An in-depth exploration of the practices that foster innovation in organisations is needed [4,11]. There is a need to develop a framework that includes more dimensions of climate for innovation to investigate the relationship between climate for innovation and product/service innovation at an organisational level [4,7,9]. This study pinpoints dimensions of climate for innovation that were not identified in previous climate for innovation frameworks. This study contributes to the climate for innovation and innovation management literature by adding insights from the Egyptian telecommunications sector. Previous studies on climate for innovation and organisation innovativeness were in Western and Asian contexts. This is the first study to investigate the relationship between employees' perceptions of climate for innovation and organisation innovativeness within the telecommunications industry in Egypt.

2. Literature Review

2.1. Climate for Innovation

Organisation innovativeness is a significant concept in academic research and managerial practice [12]. Organisational innovation is defined as "the adoption of an idea or behaviour that is new to the organisation, where the innovation can be "a new product, a new service, a new technology, or a new administrative practice" [13]. Innovation is critical to an organisation's success and ability to sustain a competitive advantage [14].

Extant research on organizational climate investigates the subjective perceptions of employees regarding their work environment and how these perceptions drive their

innovative behaviours [15,16]. Despite the longstanding interest in climate research, this area has been revamped as researchers altered their focus from global to facet-specific climates [17]. The underlying reason for this shift in focus is the acknowledgement of the significance of facet-specific climate research on employee and organizational outcomes [17]. This paper focuses on the specific facet of climate of 'climate for innovation'. Climate for innovation is generally defined as the subjective perception of employees regarding the extent to which the values and norms of an organization emphasize innovation [18] and whether the work environment is innovation-supportive [19,20]. Climate for innovation captures the employee's perceptions of the extent to which her/his organization is open to and accepts new ideas, promotes new ideas that challenge current practices, and encourages risk-taking [21,22,23].

There are several frameworks that measure climate for innovation: KEYS [19], the Creative Climate Questionnaire [24], the Situational Outlook Questionnaire [25], Siegel Scale of Support of Innovation [26], Team Climate for Innovation [27], and the Climate for Innovation Measure [28]. The different measures of climate for innovation comprise leadership styles, autonomy and empowerment, idea time, idea support, risk-taking, work group cohesiveness, conflict and debate, employee involvement, rewards and recognition, and organization structure [19,24,25,29].

2.2. Dimensions of Climate for Innovation

2.2.1. Organisation Structure

Previous research pinpoints that organisation's structure is a significant determinant of innovation and it can expedite or encumber innovation [30,31]. An organisational organic structure can enhance an innovative climate in the organisation [31,32]. Cosh, Fu, and Hughes (2012) posit that decentralised decision-making, functional specialisation and informality increases an organisation's propensity to innovate. Further, the Google case study strongly emphasises the importance of an organic organisation structure for continuous innovation [33]. Within the same vein, Dulaimi (2021) proposes that organisation structure has an impact on climate for innovation. Reviewing the extant literature, it can be concluded that organisational structure plays a vital role in influencing climate for innovation.

2.2.2. Leadership and Line Managers

According to Ekvall and Ryhammar (1999), leadership is a crucial source of influence on organisational culture as well as climate for innovation. Leadership positively influences climate for innovation and lead to improved business success [35]. Numerous previous research studies highlighted the significant role of leadership in fostering climate for innovation [1,19,29,36]. Among leadership styles, research has shown that transformational leadership promotes innovation more than any other leadership style [37,38]. Transformational leaders support creativity and encourage employees to view and solve problems in different ways [38]. They intellectually stimulate

employees to be innovative and help them to develop their full potential [37,39]. When leaders encourage employees to voice their concerns, provide supportive feedback, and develop employees' skills and competencies, they are showing themselves as supportive, thus leveraging employees' innovativeness [40].

2.2.3. Teamwork and Collaboration

This dimension has not received much attention in the creativity and innovation literature, except in the team and workgroup perspective (Foss, Woll and Moilanen, 2013). Studies of support at the work-group level show that group innovation increases when employees feel that new ideas are encouraged and they are safe in participating in the decision-making processes (Amabile et al., 1996; Ekvall, 1996). Also, other studies show that support and encouragement from work colleagues is important for employees' intrinsic motivation [5]. Co-workers' support enables collaborative work and, thus, relevant knowledge exchange, integration and creation [41]. Employees working in organisations with strong collaboration and support among employees are more likely than those who are not in such organisations to be innovative at the workplace [40]. Hoang and Wilson-Evered (2019) argues that collaboration, exchange of knowledge and sharing of information between employees across the organisation is an important source for innovation as new and novel ideas emerge when employees share experiences and insights, provide feedback and help.

2.2.4. Autonomy and Empowerment

A work climate characterized by autonomy and empowerment is more likely to enhance employees' intrinsic motivation, which can boost innovative behaviours within an organisation [43]. Empowerment enables employees to experiment and try several approaches to conduct their work and exploit ideas and develop them [44]. When employees are empowered, they feel a sense of responsibility and, consequently, they are encouraged to generate novel ideas and get engaged in innovative work behaviours [42,45]. Empowerment is critical to service organisation's innovativeness because it strengthens the employee's ability to become engaged in service innovation [46]. Empowerment augments employees' skills and professional growth, allowing them to initiate new initiatives to satisfy customer needs [23]. Consequently, this will enhance employees' customer-oriented work behaviours and engagement in service innovation [46]. Sok and O'Cass (2015) indicate that employee empowerment is essential for successful service innovation as it provides employees with greater freedom to initiate solutions, thus enhancing service quality. Therefore, it can be concluded that empowered employees are more confident in their work resulting in creative and innovative behaviours.

2.2.5. Human Resources Practices

Research suggests that effective human resources practices and systems including rewards and awards, recruitment and selection, induction, appraisal, and training are highly related to organisational innovation

[47,48,49,50]. HRM practices increase employees' motivation and job performance and engender more cohesion and communication among employees in the organisation [51]. Heffernan et al.'s (2016) study indicates that HRM practices have a significant role in creating, developing and fostering climate for innovation. However, reviewing the literature, the relationship between HRM and innovation and organisation performance needs further exploration [42,52,53]. Heffernan et al. (2016) state that HRM practices have never been fully explored explicitly in terms of climate for innovation.

2.2.6. Idea time and Idea Support

Idea time refers to the amount of time available for employees to elaborate new ideas [54]. In a high idea time environment, there are possibilities to discuss and test new ideas which are not planned or included in the task assignments [54]. Such a climate allows opportunities to take time to explore and develop new and fresh ideas [25]. It is important to provide employees with sufficient time to work on developing novelties without the burden of a routine workload [42]. Providing employees with insufficient time to do their tasks and think out-of-the-box can hinder the generation of new and novel ideas [55]. On the one hand, Ohly, Sonnentag and Pluntke's (2006) study indicates that it is important for organisations to allocate adequate time for creativity and innovation. On the other hand, when employees' time is booked and pressurised, thinking out-of-the-box is impossible [54]. Thus, idea time is essential for employees to explore new avenues and alternatives [42].

Idea support reflects the extent to which new ideas are encouraged and supported in an organisation [54]. In a supportive climate for innovation, ideas and suggestions are received in an attentive and professional way by leaders, peers and subordinates. In such a climate, people listen to each other and encourage initiatives and possibilities for new ideas to be addressed. In contrast, when idea support is low, new ideas are rejected and destructive counterarguments emerge [54]. Thus, innovative organisations need to provide employees with a constructive atmosphere where ideas and initiatives are encouraged [59].

2.2.7. Risk-taking

Another significant dimension of climate for innovation is risk-taking. Previous research signifies that innovation requires risk-taking at all levels of the organisation [35,54,58,59]. Developing or adopting new innovations is inherently risky as worthwhile outcomes are not ensured [12]. As innovation requires development of new products and processes, risk-taking is characteristic of highly innovative organisations [12,35]. Ling et al. (2008) and Wu (2008) argue that thinking out-of-the-box requires a huge amount of uncertainty and bold decisions and actions that are vital for innovation. García-Granero et al. (2015) posit that risk-taking is an essential dimension of climate for innovation to enhance the organisation innovativeness. When an organisation tolerates uncertainty and failure, employees are more likely to put forward novel ideas and come up with innovative products and services [23]. Therefore, organisations should encourage employees to be risk-takers to enhance their innovative behaviours.

2.2.8. Physical Environment

Many scholars who are concerned with the climate for innovation dimensions do not consider physical environment in their frameworks [9]. Elements in the physical environment that stimulate creativity include the presence of plants, non-crowded space, and window view [9]. Other physical environment elements, such as colour, sound and odour are considered as elements that can stimulate creativity [62]. Physical environment is considered as a significant factor for enabling employees to generate new ideas [63]. Oksanen and Ståhle (2013) argue that organisations should create innovation spaces or a physical environment that is conducive to creativity and innovation. Reviewing the literature, there is a need to develop a framework for climate for creativity and innovation that encompasses both social aspects and physical environment.

3. Research Methodology

Methodologically, researchers placed emphasis on determining and measuring the climate for innovation dimensions through quantitative approaches [19,24,25,3]. Additional qualitative research needs to be conducted to identify more practices and procedures of climate for innovation [64,40]. Further, there is a need for more studies of climate for innovation using case study method [8]. Hence, this research adopts a qualitative research method using in-depth semi-structured interviews in the Egyptian telecommunications industry. The qualitative research allows the inquirer to study participants in their natural settings in which data is collected in the field at the site where participants experience the phenomena under study [65]. For this study, the data is collected by talking directly to the participants (employees) in the telecommunications industry in Egypt and observing them behaving and acting within their contexts. This is to illustrate the climate for innovation as it is in a real-life setting rather than over-reliance upon large-scale questionnaires that are predominant in the literature [8]. The natural setting provided the researchers with face-to-face interaction throughout the data collection process.

With a purposive and snowballing sampling, thirty-five in-depth semi-structured interviews were conducted to integrate a broad range of perspectives from employees in the telecommunications industry and to reach data saturation [65]. The interviewed employees represent a variety of age, occupation and department. The sampling process ceased when theoretical saturation was reached, indicated by data redundancy where further interviews added no new information.

The semi-structured interviews were selected for data collection because they are a powerful method for generating description and interpretation of participants' social world [66]. The interview process was flexible and less rigid than structured interviews [67]. An initial interview guide was developed with open-ended questions and followed-up by probes. Starting with a general discussion of professional background, interviewees were asked if they consider their organisation innovative and how do they perceive climate for innovation. They were asked then to elaborate on the practices, policies, and

procedures conducive to innovation at their organisation as well as to what extent does the organisation support new ideas and implement them. Probing and follow-up questions were used when necessary to encourage interviewees to elaborate on or clarify a response to obtain further depth and detail and to elicit further examples [68].

A provisional list of climate for innovation codes was created prior to the fieldwork phase developed from the research themes. Each category from the provisional list of codes was given an operational definition to ensure consistency of meaning throughout the research process. Interview transcripts were reviewed and coded based on the provisional start list codes. The coding schemes were established and modified several times until final themes and categories were identified. An initial (first cycle coding) was undertaken, in which descriptive coding, simultaneous coding, and In Vivo coding were used [69]. This initial coding process was followed by an axial coding to reassemble and refine the data and to explore connections between themes [69]. Axial coding enabled the researchers to determine which codes in the research are dominant ones and reorganize the data in which synonyms were crossed out, redundant codes were deleted and the best representative codes were selected. A final list of current codes of dimensions of climate for innovation was established. NVivo software was used for data analysis to enhance the validity of the research and strengthen the rigour of the study [70]. Intercoder reliability was conducted to enhance the quality of the findings and the rigour of the analysis process. Two stages of independent coding were undertaken by two external coders to ensure the trustworthiness of the data [71]. Further, triangulation was adopted to enhance the trustworthiness of the study. Researchers used company documents, such as annual reports, mission statement, company profile, press releases, company presentations and reports, events' brochures, and newspaper clippings. These documents were collected to corroborate the findings from the interviews. By triangulating data from various sources, the researchers were able to provide convergence of evidence to increase reliability and credibility.

4. Analysis & Results

This section reports the results of the thirty-five semi-structured interviews conducted at one of the major telecommunication organisations in Egypt. It presents the analysis of employees' perceptions of climate for innovation and highlights the main themes and dimensions identified in this study in a real-life setting.

The study identifies thirty-two dimensions of climate for innovation, categorized into five main themes of climate for innovation: leadership for innovation, organisation support for innovation, organisation structure, human resources practices and impediments to innovation. The results of the semi-structured interviews reported that the thirty-five employees believe that it is crucial for an organisation to have a supportive climate for innovation. Respondents argued that even if they have the capability to be innovative, their willingness depends on the organisation's climate for innovation. They reported that

to implement ideas successfully, there needs to be supportive policies, practices, and procedures. They believed that the climate for innovation is behind the success of the organisation's innovations in the market. As one respondent stated: 'Climate for innovation is the reason for all the innovations we are coming up with. The company is giving employees the power to come up with ideas freely. In many companies, the young or the junior employees don't have a voice. Our organisation is unlike that; we have a climate that encourages us to express our ideas and opinions freely. We are an innovative company with a supportive climate for innovation that definitely and strongly relates to customer experience.'

However, differences in climate for innovation perceptions among employees in various functional units were reported. Employees in non-commercial teams had lower perception levels of climate for innovation than employees in the commercial teams. They believed that the organisation supports ideas coming out from the commercial teams because they generate more revenue, and not all employees are given the opportunity to come up with ideas and innovate. One employee mentioned: "not all ideas are supported because the company cares about the targets and is keen to achieve them. It depends on the department or function you belong to. There are people who are allowed to think and innovate while others have to do the jobs."

Leadership for innovation is one of the main themes identified in the results. It includes senior management, line managers' support, innovation strategy, innovation vision, establishing values, customer centricity, trust and openness, challenging jobs, employee involvement and empowerment. Out of thirty-five interviewed employees, thirty-two have confirmed the crucial influence of leadership on climate for innovation. Findings reveal that the deliberate climate for innovation creation is the main responsibility of leadership in the organisation. Results showed support for innovation and creation of appropriate climate for innovation is the main responsibility of the CEO. This was evident from quotes such as "I want to stress on the leadership, even if you have practices and policies supporting innovation, the leadership has a lot to do creating and keeping this innovative environment," and "The digital e-Bookstore innovation is one of our top innovations…I believe that the sponsorship from the CEO at that point, really made it happen because he was really passionate about it." Twenty-two employees also spoke about the vital role of line managers and supervisors in fostering creativity and innovation. Employees who reported high quality of the leader-subordinate relationship perceived climate for innovation positively. One employee stated: "I am working under the supervision of a good supervisor that can spot a talent, correct me, allocate me where I fit best and pushes me forward."

The extent to which the organisation placed emphasis on innovation in its strategy was perceived positively by twelve employees. Employees' comments demonstrated that innovation is at the heart of the organisation's strategy and one of the organisation's main pillars. They mentioned that the organisation's strategy focuses on always being unique in the market by seeking differentiation in product and service innovations, service

experience and advertising. Employees' quotes revealed that an innovation strategy provided them with a clear direction in terms of what they should innovate to serve customers. Interview results showed that it is crucial for an organisation to have a clear innovation vision that is supportive of the need for innovation and reflects the value of innovation to achieve organisational goals. Employees argued that the organisation's vision should clearly define innovation, innovation key performance indicators (KPIs), and whether the focus is on short-term revenues or exploring new growth opportunities. Eighteen employees mentioned that a clear innovation vision encourages them to be more innovative: 'We have a clear vision communicated to all employees that stresses the importance of innovation. The company places emphasis on importance of innovation in everything we do.'

One of the identified dimensions of climate for innovation is the value-based organisation. Having innovation as one of the main organisation's values, was mentioned by twelve employees. Employee interview results indicate that the organisation's values are the root for climate for creativity and innovation. This was revealed in quotes such as: "We have the innovation hungry value as one of our values, which encourages and enforces the innovation climate. For the first time, I have seen the great impact of value-based organisation on the employees; they are really positive." Interview results acknowledged customer centricity as a crucial dimension of climate for innovation. Customer centricity was mentioned by thirty-one employees. It is defined in this research as the extent to which the organisation places the customer at the heart of its strategy to deliver superior customer experience, in which the organisation becomes customer-obsessed, seeks to understand the customer, and innovates products and services to add value to the customer. Results posited that being customer-obsessed encourages employees to think from a customer mindset and, hence, innovate value-added products, services and processes that would enhance the customer experience. Employees summarized the importance of customer centricity by stating, "So when we perceive this importance or focus on customer experience, this makes us more innovative when thinking of new products and services to our customers," and "The main thing that contributes to the company's innovativeness is being customer-centric."

Employees' comments showed high perceptions of the level of trust and openness in the organisation. Nine employees indicated that trust is one of the organisation's main key pillars and there is a high level of emotional safety and openness among teams where they can share their ideas with their managers and colleagues. They are frank with one another and share sincere and mutual respect and count on each other's support. Results indicated that trust and openness among teams in the organisation encourages employees to express their ideas and opinions which is conducive to innovation. A junior employee in the marketing team stated: ' we share all best practices and ideas for the success of our products. Anyone in any function feels that he/she can play a role in the success of an innovation; they feel that they own it. Therefore, everyone is always keen to participate and get involved in the success of the innovation. This is where

trust is important. Our leaders and working climate provide a huge trusting environment. All of us, the employees, are open and we discuss together new initiatives and ideas together.'

Findings showed that highly challenging job tasks encourage employees to continuously think out-of-the-box to innovate products and services. Respondents stated that jobs are designed in a way to push employees out of their comfort zone. Employees conduct various tasks and move from one unit to another to broaden their perspectives and think in a divergent way and, thus, innovate. One employee posited that: "Our jobs are challenging… we always have to think of something new. Here in the organisation, we have challenges in everything. Challenge, yes, contributes to innovation." Results showed that when employees get involved in the innovation process, they are more likely to get engaged in proactive and discretionary behaviours to implement innovations that contribute to the organisation's innovativeness. A senior manager emphasised that involving young or junior employees in projects and innovations provides them with more of a sense of responsibility and encourages them to be more innovative. This was evident in quotes such as: "the organisation involves all layers in whatever decision it is. When an innovation is addressed, the commercial team starts by involving the junior employees, then team leaders, then senior managers and then the CEO." Empowerment is one of the highly-cited dimensions of climate for innovation, where nineteen employees mentioned that the extent to which the organisation empowers and allows them to have control over their job tasks and freedom to innovate affects the climate for innovation in the organisation. Empowerment is one of the highly-cited dimensions of climate for innovation, where nineteen employees mentioned that the extent to which the organisation empowers and allows them to have control over their job tasks and freedom to innovate affects the climate for innovation in the organisation. An employee pointed out: "I believe the laissez-faire way is the best for innovation. When you are empowered, you are able to be creative and innovative."

The second theme for climate for innovation identified is the organisation support for innovation that includes creation of an innovation unit, open innovation, idea support, idea implementation, idea time, conflict and debate and risk taking. The significance of establishing a dedicated unit for innovation was mentioned by seventeen employees. Findings revealed that the creation of an innovation team triggers innovation across the whole organisation by encouraging employees throughout the organisation to come up with fresh ideas, as well as facilitating the innovation process. Employees mentioned that the main role of the innovation unit is to go beyond telecommunications categories and look into adjacent markets for business opportunities to enable the organisation to produce diversified innovations. An innovation unit manager summarized the importance of the creation of a dedicated unit for innovation: "My team helps the company to create a culture and climate conducive to innovation. We are an entity responsible at looking at business opportunities. Our job is to go beyond communications categories into adjacent categories to diversify what we provide to our customers." The

interview results revealed that the telecommunication organisation does not depend only on employees as a source of innovative ideas, which is referred to as open innovation. Employees mentioned that the organisation uses external sources to increase the efficiency and effectiveness of the innovation process, to get new technologies and gain access to new and creative ideas from outside the organisation. Employees perceived open innovation practices positively and it was mentioned as an important dimension of climate for innovation. Results reveal that the telecommunication organisation launched ventures incubators, which aim to develop small technology companies to expand the scope of their business, support youth entrepreneurship, and encourage innovation and creativity. This was evident in quotes by innovation managers such as: "I am responsible for ventures, which is outsourcing innovation rather than inventing in-house. I go to a company and acquire it or buy some of its shares and sponsor whatever they are innovating," and "we don't get ideas from employees only, we go and search external sources such as universities. We get new ideas from internal and external sources and all this supports the climate for innovation."

Thirty-one employees mentioned that the extent to which the organisation encourages and supports the generation of new ideas and initiatives is of paramount importance. Twenty-eight employees spoke highly of the organisation's support of novel ideas, for example: 'the company really supports new ideas and encourages employees to come up and participate in generating new ideas. We have the catalyst tool, which is available for employees to propose and submit new ideas on and, based on the number, of comments the ideas are taken forward for more evaluation. People are overly excited to submit ideas. We have an unbelievable number of ideas submitted daily.' Interviews results indicated that the organisation supports new ideas through various practices including forums for idea generation, programmes and competitions, showrooms and think boxes. An example of a very successful innovation that came up from those idea generation tools is the first Arabic digital e-Bookstore in the Middle East.

Out of the thirty-five interviews, eleven employees reported that the practical implementation of new ideas encourages them to be more creative and innovative. Idea implementation is conceptualised in the current study as the extent to which the organisation practically implements new ideas. A manager in the technology department stated: 'the company really encourages people to come up with new ideas and supports potential ideas' implementation. So, if any employee is willing to implement a certain idea, the company extremely supports this. Once the company finds a good idea, it captures and supports its development and implementation. It really feels good to see your idea implemented and the customers like it.'

Twenty-two employees stated that the amount of time available for them to think and elaborate on new ideas is an important dimension of climate for innovation. Results revealed that there is a significant difference in the way commercial and non-commercial teams perceive the amount of time they have for elaborating new ideas. Employees from the Human Resources, Internal Communications, and Enterprise Business units indicated low levels of idea time. Their comments indicated that they do not have enough time to think out-of-the-box to explore and work on new ideas due to task assignments and targets to be achieved. An employee from the sales team stated that: "the dark side of the sales job is that we don't have enough time dedicated for brainstorming ideas. We are drained in our jobs and sales targets. When I was in the marketing team, we had more time for coming up with new ideas."

Twenty-one employees argued that risk-taking is a significant dimension of climate for innovation. However, the findings of the risk-taking dimension were mixed as employees' perceptions of the level of risk-taking are varied. They mentioned that novelty is related to high risk-taking such as investing in unexplored technology or introducing new products and services. This was evident in an employee stating "when we think of new ideas or are competing to be the market leaders, we take a risk. We don't go with the traditional way of thinking; we think out-of-the-box, and this is a risk." Employees from the Commercial and Innovation teams reported that their organisations are risk-takers, while employees from the Customer Experience and Sales reported that their organisations are moderate risk-takers. A possible explanation for this is the high support of the organisation to the commercial teams, as discussed earlier.

On the debate and conflict dimension, results confirmed that the organisation has high levels of debates and constructive conflicts. Results revealed that the organisation encourages on-going debate through forums and weekly meetings to review prospective ideas, innovations and business performance and to discuss issues and the organisation's strategies. Twelve employees reported positive perceptions of debate practices in the organisation. Interview results indicated that high levels of constructive debate are conducive to innovation: 'we have lots of discussions and debates where people are allowed to place their arguments. … so, debate is always going on. This contributes to innovation … without having debate, you can't build a real work environment conducive to innovation.'

The third theme of climate for innovation identified is the organisation structure that included bureaucracy, hierarchy, structure of functional units, physical environment, flexibility, informality, playfulness and dynamism, and teamwork and cohesion. Twenty-eight respondents mentioned that organic organisation structure is crucial for a climate for innovation. Interviewees explained that an innovative organisation should be non-hierarchical, informal, has little red tape, enjoys flexibility and is playful and dynamic. This is reflected in quotes such as: "we are more of a flat organisation; we don't have too much hierarchy like other big corporations. We have an open-door policy; the CEO is very approachable. So, people don't feel that there are barriers." An interesting finding was the structure of the functional unit that was emphasised by twenty employees. Findings reveal that the telecommunications organisations divide the commercial teams into mass market segment, aspiring customer segment, high-end customer segment, and the youth segment. Results revealed that the continuous restructuring of the functional units fosters creativity and

innovation: "every year we re-think our organisation's structure and how it can foster creativity and innovation. In the earlier days, the structure was different than now where we were working by product, such as pre-paid and post-paid. We decided to organise the company's structure in term of customer segments." The physical environment dimension is suggested by sixteen employees as a significant dimension of climate for innovation. Employees spoke positively about the influence of the office space, colours, odour, cafes, sports area, and other facilities on the climate for innovation. One employee mentioned: "sometimes we go sit in the garden or open-air area to come up with potential innovative ideas. The physical environment plays a major role in contributing to this climate for innovation. Our environment is extremely flexible. We don't sit at our desks like the regular settings in other companies; we move a lot. We have TV areas, cafes, gardens, and special rooms for brainstorming new ideas." Another noteworthy dimension is playfulness and dynamism. A third of the interviewed employees spoke positively about the level of playfulness and dynamism in the organisations. They described their work environments as "a non-stop fun spirit", as quoted by several employees. Employees mentioned that playfulness and dynamism encourage the generation of novel ideas and new initiatives. This was obvious in quotes such as: "the funny atmosphere that we have; it might sound a small thing but the events and parties that we have in the company are really amusing. This creates a fun spirit that makes employees happy when they are coming to work; it encourages them to think of new things and be more innovative."

More than two-thirds of the employees mentioned the effectiveness of the human resource practices within the organisation and its role in facilitating an appropriate climate for innovation. Employees' views demonstrated that the human resources system is an important dimension of climate for innovation. Interview results suggested that effective human resource practices incorporating approaches to rewards and recognitions, performance appraisal, internal communications, training and recruitment predict a positive climate for innovation.

The interviewees' comments regarding rewards and recognition indicated that the organisation has various types for rewarding innovation, as well as for going the extra-mile and going beyond the required job tasks. The results revealed that employees perceived the organisation's system for rewards and recognitions positively. Employees' comments showed that they get rewarded and recognised when they think out-of-the-box and come up with new ideas for products and services, improve performance and efficiency, and go the extra-mile to satisfy the customers. Out of thirty-five interviews, rewards and recognitions are mentioned by twenty-three employees. The organisation provides specific rewards and recognition awards dedicated to employees' creativity and innovation, as demonstrated: 'We have a specific reward policy for innovation where we have a prize called 'I'm innovative' for employees who think out-of-the-box and come up with new, creative and innovative ideas.'

Performance evaluation and appraisal based on innovative behaviours was indicated by six employees as a significant practice that stimulates innovation. It also enables the organisation to identify employees with lower innovative behaviours and, thus, conduct training programmes to strengthen their performance. Results suggested that evaluating employees' performance based on innovative behaviours and going the extra mile positively influences climate for innovation and, thus, enhances employees' innovation. Employees emphasised the critical role of the internal communication dimension in creating an appropriate climate for innovation. Internal communication was mentioned by nine employees, in which they reported positive contribution of internal communications to the climate for innovation:' the role of the internal communication department is basically the central nervous system of the organisation's communication system … we remind our employees on a daily basis about the importance of innovation. We have a weekly newsletter that comes out every Tuesday that shows all the success stories from our organisation and other companies. It includes best practices from all over the world related to our industry as well as recognition of our organisation's success stories, such as the digital bookstore which was a huge success ... we also make sure that we are sharing best practices with cases to foster the innovative thinking in our organisation.'

Another identified human resources dimension is training and development. Employees mentioned that the Human Resources department conducts periodical training programmes about innovation and how to think in an innovative way as well as e-learning modules on innovation, to encourage employees to think differently and be more efficient and effective. Last, but not least, employees indicated that recruitment and selection policies are an important part of promoting climate for innovation. Results suggested that even if the leaders are supporting innovation, the organisation cannot be innovative unless it recruits the right people. The telecommunications organisation conduct programmes to discover the talents of universities' graduates and chooses the top talents to be recruited. Apart from personality traits such, as intelligence, knowledge, and risk-taking, diversity was reported as of utmost importance in the selection and recruitment of creative and innovative people. The importance of diversity is reflected in the following quote: "One of the most important factors of the climate for innovation is diversity. I mean diversity in mindsets; you have people coming from a very strong telecom background, FMCG background, some people are introverts while others are extroverts … you need to have the normal distribution within the team. If your team is coming from the same background, ideas or innovations will be the same."

The fifth theme of climate for innovation identified is the impediments to innovation that includes resources and work pressure. Eight employees spoke about the importance of adequate resource availability to maintain a climate for creativity and innovation. Interview results regarding resources were mixed primarily because of the financial constraints. On the one hand, three employees mentioned that the organisation provided all the adequate resources to support innovation including financial budgets, time to work on novel ideas, collaboration with external agencies, and the availability of a strong research and development department. On the other hand, five

employees mentioned that innovative ideas are hindered, sometimes because of limited budgets. They suggested that the organisation needs to increase the amount of the budget allocated to innovation: 'some ideas might be de-prioritised because of limited resources or if there are more potential ideas that the management thinks are more important than others. So, we don't do everything we want.'

Interview results revealed that workload pressure undermines innovation. Four employees from the Customer Care and Enterprise Business units reported high workload pressure in the organisation. There is no report of high work pressure from the commercial and innovation teams. Employees indicated that high work pressure due to deadlines and targets have a strong negative influence on idea generation. They posited that it is difficult to achieve targets and deadlines while being able to innovate. Employees believed that if the work pressure is lessened, the organisation would be able to come up with more innovations. Also, they mention that it is the industry's nature, dynamism and competition that create a tense work environment. The example below demonstrates some of the employees' perceptions of work pressure.

5. Discussion

Leadership for innovation is one of the main dimensions identified in the results. Consistent with the literature, the findings reveal that senior leadership is a crucial dimension of climate for innovation [3,24,25,29,34,38]. Congruent with the literature, the current study's results show that transformational leadership is essential for innovation [37,72,73]. Results posit that line managers or supervisors influence climate for innovation. The findings suggest that anyone can be innovative but it depends largely on direct supervision of line managers. If the line manager is too much focused on performance and not allowing enough time for employees to talk and be creative, there will be no room for innovation. These findings support previous research of Tierney, Farmer and Graen (1999), Shalley, Zhou and Oldham (2004), Prieto and Pérez-Santana (2014), and Cheung and Wong (2011). Innovation strategy is identified in the climate for the innovation theme of leadership for innovation. Congruent with the literature, it was found that a successful innovation strategy should focus on long-term revenues, as focusing on short-term revenues kills innovation [74,75]. The data from this research supports previous research, which shows that an innovation strategy establishes a direction for the organisation and improves the organisation's innovation [76]. Based on the current research results, it is plausible to argue that developing an innovation strategy is an important dimension of climate for innovation. However, developing an innovation strategy was not included in previous climate for innovation frameworks [19,24] and, thus, this study proposes the explicit inclusion of an innovation strategy in climate for innovation frameworks.

The current research provides support for earlier studies' findings confirming that an innovation vision represents an important message to employees, that innovation is not just valued but it is critical to achieve the organisation's

objectives [77]; and if employees believe that the organisation leadership supports innovation, they are encouraged to get engaged in innovative work behaviours [19,78]. Establishing an innovation vision was identified as a dimension of team climate for innovation framework (TCI) developed by Anderson and West (1998) and Amabile et al. (1996). Therefore, research results confirm that an innovation vision is an important dimension of climate for innovation.

The current stidy identifies value-based organisation as another dimension in the leadership for innovation theme that is not suggested in previous measurements of climate for innovation. Results indicate that it is important to establish shared core values among all employees in the organisation to institute a foundation and guiding principles for employees. The findings of this research posit that having innovation as one of the organisation's main values is the root for climate for innovation. Thus, it can be concluded that innovation should be one of the organisation's main values to create and foster climate for innovation. The current study proposes that establishing organisational values focusing on innovation should be integrated in climate for innovation frameworks.

This research findings identify customer centricity practices as a crucial dimension of climate for creativity and innovation, which was not included in previous climate for creativity and innovation scales, such as the creative climate questionnaire and the situational outlook questionnaire [54,64]. Results reveal that the telecommunications organisations implement practices and policies to ensure high levels of customer centricity to stimulate employees to think from a customer mindset. Such practices included the launch of a customer experience excellence programmes, placing customer centricity as one of the organisation' key pillars and establishing commercial teams dedicated to each customer segment. Customer centric organisations are more likely to provide successful innovative products and services that are congruent with customer needs and wants [79]. Literature also suggests that customer centric organisations have high chances of producing new-to-the-world innovations [80], and retain their customers [79]. Thus, this study proposes customer centricity is an important dimension of climate for innovation.

This study shows that in order to promote innovation in an organisation, employees must be open and frank with each other and willing to share ideas, experiences and views, and that depends on the level of openness and trust [81]. This is similar to Bysted (2013) who argues that trust allows employees to freely suggest new ideas, knowing that their peers will respond positively. Challenging jobs is found to be another dimension of climate for innovation in the leadership for innovation theme. Findings suggest that jobs should be designed in a way to push employees out of their comfort zone. Employees should conduct various tasks and move from one unit to another to broaden their perspectives and think in a divergent way to enhance their creative and innovative performance. An interesting finding is that healthy competition among teams enhances creativity and innovation in the organisation. The organisation provides employees with a competitive environment to revitalise creativity and innovation in the organisation. Earlier studies posit that

destructive competition among employees has detrimental consequences on creativity and innovation where employees tend not to share information and ideas [83,84,85].

The research results convey that involving employees in operations, strategic decision-making and issues facing the organisation provides them with a sense of responsibility and, thus, stimulates their creative and innovative work behaviours. Further, the findings point out that a high level of empowerment leads to positive perceptions of climate for innovation. Consistent with earlier research, it is found that employees are encouraged to innovate when they feel that they have control over their job tasks and discretion in daily work responsibilities [44].

The second theme of climate for innovation identified is the organisation support for innovation that includes creation of an innovation unit, open innovation, idea support and implementation, idea time, and risk-taking. Findings indicate that the creation of a dedicated team for innovation triggers and fosters innovation across the whole organisation and facilitates the innovation process. This unit is responsible for encouraging innovation across the organisation as well as examining new ideas and exploring new potential opportunities in the market that are not related to the core products and services. However, establishing a dedicated unit for innovation was not addressed earlier in previous climate for innovation frameworks [19,25]. Thus, the current study proposes that the creation of a dedicated unit for innovation is an important dimension of climate for innovation. Open innovation is identified as a substantial dimension of climate for innovation theme of organisation support for innovation. Research findings point out that an organisation should use external sources for creative ideas to enhance the organisation's innovation capability and innovativeness. Within the telecommunications industry, Bigliardi, Ivo Dormio and Galati (2012) argue that open innovation provides significant advantages to the organisation, ranging from improved service quality, service innovation customisation, to cost reduction. Thus, confirming the results of previous research, this study postulates that open innovation is a significant practice that enhances organisation innovativeness. Nonetheless, open innovation was not included in prior climate for innovation frameworks and its relationship with organisation innovativeness was examined separately. Hence, this study identifies open innovation as a main dimension of climate for innovation.

Findings reveal that idea support is a crucial dimension of climate for innovation, where organisations should applaud novel ideas and initiatives. To support new idea generation, organisations should adopt various practices, such as establishing forums for idea generation, conducting programmes and competitions, and providing showrooms and think boxes. The current study suggests idea implementation, the extent to which an organisation practically implements new ideas, as a dimension of climate for innovation theme of organisation support for innovation. Idea implementation is not identified as a dimension of climate for innovation in previous studies (e.g. Ekvall, Arvonen and Waldenstrom-Lindblad, 1983; Amabile et al., 1996; Isaksen, Lauer and Ekvall, 1999). Findings suggest that practical implementation of ideas

encourages and inspires employees to be more creative and innovative. Congruent with previous research, findings from this study confirm that idea time is an essential dimension of climate for innovation to allow employees to explore and elaborate on novel ideas and projects [54,87,88]. The current study's results are consistent with earlier research confirming that the higher the organisation's tolerance for risk-taking, the higher the organisation's innovation [12,25].

The third theme of climate for innovation identified is the organisation structure. Findings show that the organisation under study has an organic structure including less-bureaucracy, non-hierarchy, structure of functional units, flexibility, informality, playfulness and dynamism. Though functional units structuring is not mentioned as a dimension of climate for innovation, the current study argues that continuous restructuring of the functional units according to customer segments fosters innovation and enhances the climate for innovation. The current study's findings reveal that the physical environment is a significant dimension of climate for innovation. However, previous research concerned with climate for innovation did not consider physical environment in their frameworks [19,25]. Results of this study indicate that a non-traditional and relaxing office setting enhances employees' creativity and innovation [9,62,63]. Thus, it can be argued that physical environment is an essential dimension of climate for innovation that should be integrated in climate for innovation frameworks. Further, playfulness and dynamism in the organisation is identified as a dimension of climate for innovation. Results show that an enjoyable working environment, which includes games, laughter, parties and fun activities, reduces job stress and encourages employees to produce new bright ideas. However, there is limited research on the relationship between playfulness and dynamism in the workplace and innovation and more empirical research is needed.

The fourth theme of climate for innovation identified in the current study is human resources practices including rewards and recognition, performance appraisal, internal communication, training and development, and recruitment. The human resources practices have never been fully investigated in terms of climate for innovation [52]. Findings posit that recognition awards that increase intrinsic motivation are more effective to promote innovative behaviours, where employees feel more proud when they get recognised for proposing novel ideas and innovations. The current study suggests that performance appraisal is a significant practice that enhances and stimulates creativity and innovation. The current study's results are consistent with the findings of Cooke and Saini (2010) and (Muduli, 2015) who argue that performance management programmes, such as performance appraisal and performance-based promotion, are important human resources practices that promote innovation. However, the performance appraisal dimension does not receive attention in the climate for innovation literature and is not considered in the climate for innovation frameworks and measurements [19,25].

The current study proposes that internal communication is an important dimension of climate for innovation. Congruent with the existing literature, the findings of this

study postulate that internal communication across functional units has a positive influence on an organisation's innovation [91,92]. Extending Linke and Zerfass' (2011) study findings, the current study confirms that internal communication plays a crucial role in fostering creativity and innovation in an organisation. However, despite the crucial role of internal communication in fostering innovation, internal communication is not cited as a dimension of climate for innovation in earlier research and frameworks.

In line with previous research, the current study's findings point out that an organisation should run a variety of training and development sessions and programmes to enhance employees' innovative abilities and foster and encourage innovation across the organisation [89,94,95]. However, despite the importance of training and development in fostering innovation, the extant literature on climate for innovation did not consider training and development as a dimension. Finally, results of the current study suggest that recruitment and selection policies represent an important dimension of climate for innovation. The organisation adopts an innovation-oriented recruitment policy, which is the extent to which the selection and recruitment of employees is focused on leveraging the organisation innovativeness [96]. Despite that, the climate for innovation frameworks in the literature did not mention recruitment.

6. Conclusion

This study contributes to the climate for innovation and innovation management literature by identifying further dimensions of climate for innovation that foster organisation innovativeness in a real-life setting. This study shows how a service organisation creates a supportive climate for innovation that facilitates organisation innovativeness in a real-life-setting. This study pinpoints dimensions of climate for innovation that enhances organisation innovativeness that were not identified in previous climate for innovation frameworks, including: customer centricity, a dedicated unit for innovation, open innovation, idea implementation, structure of functional units, hierarchy, bureaucracy, informality, performance appraisal, physical environment, flexible working conditions, internal communication, training and development, and recruitment. Some of these dimensions, such as open innovation, training and development, and recruitment, were studied separately as practices that enhances employees' innovative behaviours and organisation innovativeness [89,96], but not integrated in climate for innovation frameworks. Hence, by identifying further dimensions of climate for innovation, this study provides a comprehensive framework of significant dimensions of climate for innovation that enhances the organisation innovativeness.

7. Limitations and Future Research

This study adopted a single case study approach, which used qualitative research methods including in-depth interviews. As with any single case study research, there are always limitations to the design, implementation, and analysis. One of the main limitations of this study is the size and scope of the sample frame. The research is confined to one large organisation in the telecommunications industry. This sample is, therefore, small in comparison to quantitative studies in the field of climate for innovation research. However, because of the qualitative nature of the research, this study is not designed for projection to the population as a whole. Instead, the researchers focused on a major telecommunications organisation to investigate climate for innovation in a real-life setting in a non-westernized context. Because of the detailed insights needed to understand, it was difficult to include another case study organisation due to time constraints.

The current study sheds light on climate for innovation in non-westernized contexts and identifies new dimensions. Using quantitative methods, future research could empirically explore and test the newly identified dimensions of climate for innovation in more contexts, including different service sectors, as well as different countries.

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