

Investigating the factors that influence virtual teams' performance within the United Arab Emirates using IMOII model

Samah Khalil, Ph.D.*

Professor

Higher Colleges of Technology

Faculty of Business

Dubai Men's College

United Arab Emirates, P.O. Box 15825

Abstract

To effectively operate in global business environment, multinational organizations use virtual teams extensively with members all over the world. Improvements in communication technologies have contributed to facilitating such communications among team members who come from different backgrounds. However, virtual teams face many challenges that must be successfully addressed in order to achieve success. Thus, it is important for organizations to understand the factors contributing to success and challenges facing virtual teams. This study investigates the factors influencing the performance of virtual teams within United Arab Emirates (UAE) using the Input-Mediators-Output-Input (IMOII) model as a foundation framework. In-depth interviews were conducted with eight national virtual team members working at different multinational companies within the UAE. Results indicated that UAE nationals consider culture and training are key factors that lead to effective communication and yet better team performance and satisfaction.

Keywords: Virtual teams, IMOII model, United Arab Emirates.

1. Introduction

Due to globalization and advanced communication technologies, many organizations now rely on virtual teams, "a group of individuals located in two or more countries, working on interdependent tasks, using information and communication technology as a primary means of interaction" (Martins & Schilpzand, 2011, p4), to accomplish business activities across their remote branches or global affiliations. Effective virtual teams can provide several benefits to organizations including flexibility, convenience, time saving, and travel cost reduction. Virtual teams differ from traditional teams as team members may come from different cultural backgrounds, speak different languages and ultimately work together from diverse geographic locations at likely different time zones. Clearly, the potential for failure of virtual teams is considerable. In fact, few virtual teams are highly successful when organizations use the same guidelines and practices that were used in their traditional teams (Horwitz, Bravington, & Silvis, 2006).

The United Arab Emirates (UAE) is home to many multinational companies. The importance of effective virtual teams within the UAE stems largely from the significant growth of this country as an economic hub in the Middle East and African Region (Sbia, Shahbaz, & Hamdi, 2014). Virtual teams have become a crucial tool for sharing information, discussing innovations, and making decisions without the constraints of time, cost and risk of travel, especially within the Middle East. For managers within this area to ensure that their virtual teams are effective and efficient, they must be aware of the factors that affect the performance of virtual teams. Research investigating performance and effectiveness of virtual teams varies extensively regarding variables related to individual and organizational performance. This study used the Input-Mediators-Output-Input (IMOII) model proposed by Ilgen, Hollenbeck, Johnson, and Jundt (2005) as a foundational framework to explore the factors influencing virtual teams' performance within companies operating in the UAE. The study adds to the body of literature by exploring the factors influencing the performance of virtual teams from the perspective of UAE nationals who participate in those teams as representatives of the multinational companies in one of the most prominent and fastest growing part of the Middle East region (Stephens Balakrishnan, 2013).

Also, this study explores the challenges facing UAE nationals, as virtual team members, and provides recommendations that will contribute to the virtual teams' effectiveness and efficiency.

2. Research Questions

The current study addresses the following three questions:

- What factors influence the performance of virtual team members stationed at the UAE subsidiaries?
- What are the key challenges facing UAE national virtual team members in particular? and
- How do multinational companies address those challenges?

3. Theoretical Framework

Input-Mediators-Output-Input Model

Input-Process-Output (IPO) model has been used as a classical system framework to investigate traditional team performance; more recently, it has been extended to examine virtual teams' performance (Schweitzer, 2005). This framework assumes that inputs, whether individual or organizational, lead to processes and in turn to outputs.

In an attempt to address the limitations of the IPO classical model in examining increasingly complex teams, Ilgen et al., (2005) suggested that processes include emergent cognitive or affective states. They replaced processes with mediators to reflect the broader range of variables that reflect the complexity under which the teams currently operate. Initially, processes included variables such as communication or conflict resolution, yet mediators were introduced to include additional cognitive or motivational variables such as trust, cohesion and team cognition or conflict resolution as mediating factors that explain team performance and satisfaction (Ilgen et al., 2005).

Martins and Schilpz (2011) used the IMOI framework as a guide to organize their extensive review of previous studies of global virtual teams. Although, Martins and Schilpz (2011) classified inputs into individual, team and organizational levels (as summarized in Table 1), inputs in the present study did not follow this differentiation yet focused only on selected inputs from each level, mediators and outputs that seemed relevant to the population under investigation.

Table 1: Input-Mediators-Output-Input Model

Inputs	Mediators	Outputs
<i>Individual Inputs</i>	Conflict Management	Performance/effectiveness
Culture	Communication & Collaboration	Satisfaction
Knowledge of Technology	Relationship Building	
Experience with Virtual Teams	Feedback	
	Group Development & Temporal Patterning	
<i>Team Inputs</i>	Learning, Knowledge & Team Cognition	
Design	Influence and Politics	
Leadership	Trust	
Technology	Cohesiveness	
	Team Identity	
<i>Organizational Input</i>		
Staffing		
Reward Structure		
Training		
Organizational Culture		

3.1 Virtual Teams Inputs

Culture, leadership, technology and training were selected as inputs to be investigated. The current study selected these inputs from various research studies such as Kayworth and Leidner (2000) examining virtual teams' performance because they seemed relevant to the country under investigation (i.e. the UAE). Further, and in accordance to Ilgen et al. (2005), each of the selected variables reflect the main stakeholders i.e. the individual, team and organization inputs. Most research studies (e.g. Horwitz et al., 2006) used North American, European or Asian samples to examine virtual team performance, yet no studies were found to explore Middle East region in general or the UAE in particular. Discussion of each input variable is presented below.

3.1.1 Culture

Culture refers to the values or beliefs that distinguish one group or category of people from others (Hofstede, 1980). In Hofstede's (1980) seminal work on national culture differences in work related values, he distinguished between countries' cultures based on four dimensions: power distance (the extent to which less powerful group members expect and accept that unequal distribution of power), individualism versus collectivism (the level of independence of individuals or groups when taking care of themselves), masculinity versus femininity (the degree to which society is driven by success, achievement and competition or by care for others and quality of life), and uncertainty avoidance (the extent to which unknown situations are avoided).

The additional two categories, short-term vs long orientation and indulgence were not included in this review of literature as they were added later to Hofstede's seminal work and were not measured for the country under investigation. Based on Hofstede's work, UAE citizens are high on the power distance and uncertainty avoidance dimensions indicating that UAE nationals participating in virtual teams are likely to accept hierarchical order and centralization, that team subordinates expect to be told what to do from their team leader, and are likely to avoid uncertainty while maintaining their rigid codes of beliefs and behaviors. Thus, they may exhibit intolerance to unorthodox behavior or ideas. Because the UAE is a collective society that fosters strong relationships (employee to employee relationships are perceived in moral terms), UAE nationals may be less competitive and have less ambition to stand out from the crowd than team members from other cultures ("United Arab Emirates - Geert Hofstede," n.d.). Cultural difference is the greatest barrier to performance of virtual teams (Staples & Zhao, 2006). UAE nationals value collectivism, modesty, hierarchy, formality and indirectness, whereas western cultures value individualism, achievement, equality, informality and assertiveness ("United Arab Emirates - Geert Hofstede," n.d.). Thus, cultural differences offer important insights as to why multinational virtual teams often fail to be effective (Kankanhalli, Tan, & Kwok-Kee Wei, 2006).

3.1.2 Leadership

Leadership plays an essential role in the success of virtual teams because, unlike conventional teams, virtual team leaders lack face to face interactions and must depend on communication technology to manage conflicts, build trust and motivate team members to enhance performance (Hunsaker & Hunsaker, 2008). Several researchers have attempted to identify relevant leadership qualities that influence the performance of virtual teams; Nydegger and Nydegger (2010) found that team leaders need to be able to detect problems early, get new members incorporated into the group quickly and efficiently, observe how well the team is functioning, build trust and cohesion and use effective tools of communications. Additionally, leaders who set clear goals, provide continuous feedback and show high level of cultural sensitivity, are perceived as effective leaders (Kayworth & Leidner, 2000).

3.1.3 Technology

Because technology plays an essential role in improving the performance of virtual teams (Horwitz et al., 2006); (Kayworth & Leidner, 2000); (Nydegger & Nydegger, 2010), virtual team members need specific skills, training and equipment to communicate effectively. The technology needed is largely based on task and project scope (Hunsaker & Hunsaker, 2008). Technological tools to communicate among virtual team members include both synchronous and asynchronous tools (Martins & Schilpzand, 2011). Synchronous tools, such as telephones, teleconferencing, and video conferencing, require the availability of team members at the same time. However, these tools also, may allow team members to share documents, write on a shared white board and type text chat to the entire group or to one person. Asynchronous tools such as voice mail and e-mail don't require people to be available at the same time, so team members may communicate according to their own time limitations.

The choice of technology depends on several factors such as message complexity and the task to be performed. More complex messages require a richer communication technology medium to help process information and make decisions (Maznevski & Chudoba, 2000). Synchronous tools are better suited for decision making tasks, while asynchronous tools may be used for simpler communication messages such as project deliverables (Riopelle et al., 2003). Further, culture orientations of team members influence the choice of technology. Collective cultures with high uncertainty avoidance (e.g. UAE) are more likely to prefer asynchronous technology compared to individualistic with low uncertainty avoidance cultures (e.g. USA). Further to culture differences, language difficulties also suggest the technology to be used. Uber Grosse, (2002) suggested that virtual teams members having language difficulties would prefer asynchronous technology that is using written messages because their written English skills were better than spoken skills.

3.1.4 Training

Researchers have stressed the importance of empowering virtual team members with the necessary skills to perform effectively (Anawati & Craig, 2006; Nydegger & Nydegger, 2010). Research findings suggest that training virtual team members to acquire certain competencies would improve the team performance. Among these competencies: trust and communication (King, 2007); task planning and goal setting (Brahm & Kunze, 2012) and (Forester, Thoms, & Pinto, 2007); problem solving (Turel & Zhang, 2010); decision making and conflict resolution (Kankanhalli et al., 2006) and cross culture training (Anawati & Craig, 2006). Accordingly, training virtual team members on issues such as intercultural awareness, team building, trust development, and creative problem solving is important because of its direct relation with virtual team performance (Kayworth & Leidner, 2000). Finally, Anawati and Craig (2006) found that virtual team members adapt their behavior in both verbal and written communications better and faster after receiving training with cultural dimensions and that culturally aware members show more consideration regarding religious factors in things such as setting deadlines or scheduling meetings.

3.2 Virtual Teams Mediators

Mediators represent the extended processes including cognitive variables by which virtual team members get the job done (Ilgen et al., 2005). Researchers have investigated several mediators that influence virtual team performance (as shown in Table 1); however, this study focuses on communication, trust and feedback because these variables are expected to be influenced by cultural characteristics of UAE nationals. Even though English language is the second most spoken language after Arabic within the UAE, still mastering the English language is not fully supported (Randall & Samimi, 2010). Hence, communication problems may be realized. Trust is also related to effective and efficient communication, therefore, exploring trust as mediating variable deemed important. Finally, feedback was also selected because of the inherited relationship with communication and trust. Review of literature to these variables is presented below:

3.2.1 Communication

Face-to-Face communication involves both verbal and non-verbal cues that typically enhance understanding, and thus, communication between team members. However, virtual teams use communication technologies that lack the same visual and auditory cues; thus, virtual team members are sometimes unable to read the non-verbal signals --especially when asynchronous technology is used. Because effective and continuous communication is necessary to improve information sharing and enhance team performance (Kayworth & Leidner, 2000), initial or periodic face to face meetings among virtual team members is recommended to improve communication, build trust and enhance performance (Grosse, 2002). Anawati and Craig (2006) found that virtual team members who had prior experience with virtual teams or received cultural awareness training, adapted their verbal communication more than their written communication (by using less jargon, speaking more slowly, or using simpler words or sentences), thereby improving team performance and satisfaction. Studies focusing on cross culture communication suggest that collective cultures such as the UAE, are influenced more by group membership, have lower skills in entering or leaving new groups (Hofstede, 1980), are less motivated to disclose individual information, and are less likely to respond to ambiguous messages (Jarvenpaa & Leidner, 1999).

3.2.2 Trust

Trust, a “psychological state that tends to emerge after numerous interactions over a considerable period of time,” (Martins & Schilpzand, 2011, p34), is often difficult to develop and maintain among virtual team members due primarily to the lack of face-to-face communication (McDonough III, Kahn, & Barczak, 2001). Physical and emotional distance also plays an integral role in limiting the sense of belonging, and hence trusts. Mitchell and Zigurs (2009) examined trust among virtual teams and found that training and visualization affect virtual teams’ socio-emotional processes (i.e. relationship building and team cohesion); communication and coordination, which in turn enhance team performance and satisfaction. Jarvenpaa and Leidner (1999) found that team building exercises affected team members’ beliefs about other members’ integrity, ability and benevolence which are considered mediating factors of trust. Even though building trust in virtual teams is harder than traditional teams, yet maintaining this trust is also important. Pinjani and Palvia (2013) found that mutual trust and knowledge sharing among diverse virtual teams is influenced by task interdependence and use of collaborative technology. Teams with high task interdependence were able to overcome their diversity differences and collaborate more effectively.

3.2.3 Feedback

Feedback is considered an important tool in shaping team learning and improving team performance (Gabelica, Bossche, Segers, & Gijssels, 2012). Providing timely feedback to virtual team members is considered very difficult primarily due to physical separation among team members (Martins & Schilpzand, 2011). Feedback in general is important whether it is provided to the team or to the individual members. Gabelica et al. (2012) proposed that feedback is comprised of both: performance feedback (i.e. feedback about individual or group performance to correct poor performance and enable improvements) and process feedback (i.e. feedback about task performance and results). Whether it is process or performance feedback, or individual or team feedback, it is important to understand the effect of how feedback is perceived and processed by virtual team members. If virtual team members did not receive, understand, consider and act upon the feedback provided by team leader and peers, then modifications and changes to processes or performance will not be implemented.

3.3 Virtual Teams Outputs

Virtual team outputs are the outcomes of virtual teams' collaborative work. The literature had examined two main outcomes for virtual teams: performance and satisfaction. This study will explore both outcomes within the UAE nationals as these variables are considered intertwined outcomes to group work.

3.3.1 Performance

Performance is defined as "the extent to which the team meets standards of quality, quantity, and timeliness of task outputs that the team was assembled to achieve" (Martins & Schilpzand, 2011, p.44). Several factors were found to have a direct impact on performance of virtual teams, for example, reliability of IT infrastructure (Saafin & Shaykhan, 2014); geographic dispersion (McDonough III et al., 2001); and cultural diversity (Staples & Zhao, 2006). This study however focuses primarily on the preceding inputs and mediators as factors that are expected to influence performance. Culture, leadership, technology and training with communication trust and feedback as mediating factors are expected to influence performance of UAE virtual teams.

3.3.2 Satisfaction

Satisfaction as a measure of virtual team effectiveness, is defined as the extent to which team members perceive and agree upon virtual team outcomes or deliverables (Lin, Standing, & Liu, 2008). Research studies often paired performance and satisfaction as prominent outcomes to virtual teams' effectiveness (Turel & Zhang, 2010). Lin et al. (2008) tested performance as an antecedent to satisfaction concluding that performance had a positive impact on virtual teams' satisfaction. Bradner, Mark, and Hertel (2005) found that small size virtual teams are more satisfied than large virtual teams. Also, Hertel, Konradt, and Orlikowski (2004) indicated that virtual teams who had a chance to meet face-to-face early in the forming stage; had non-job related communication and had effectively managed their conflict, performed better and were highly satisfied.

4. Methodology

This study used the phenomenological qualitative research method to explore virtual teams' performance within United Arab Emirates. Phenomenological qualitative research method was chosen because it will allow the researcher to understand the UAE nationals' experience with virtual teams from their own perspective (Leedy & Ormrod, 2014). This method depends exclusively on lengthy semi-structured one-to-one interviews with careful selection of participants who have direct experience with the phenomena being studied (Creswell, 2013).

Purposive non-probability sampling technique was used because access to multinational companies within the UAE was not easily attainable. In addition, there is a limited number of multinational companies who have existing virtual teams with UAE national members. Creswell (2013) suggested that to identify meaningful units that reflect various aspects of the experience of a certain phenomenon, a typical sample size may range from 5-25 using in-depth interviews. Accordingly, one-hour semi-structured interviews were conducted with eight local UAE employees who were active members of virtual teams. The interviewees were mainly asked about the typical management level that uses virtual teams; technology used by their virtual team; factors they perceive leading to effective and efficient team performance and satisfaction; challenges they perceive leading to inefficient and ineffective team performance and satisfaction; and finally their recommendations to improve their virtual team performance and satisfaction. The answers were analyzed and presented in lieu with the common themes established in the literature review.

5. Results and Discussion

The main purpose of this study was to investigate the factors and challenges that influence the performance of UAE nationals' participating in virtual teams. Results of the semi-structured interviews are presented below under themes consistent with the review of literature.

5.1 Descriptive results

Data was collected from eight male UAE nationals who are members of virtual teams for two years or more. Participants are members of either multinational companies or local companies with international affiliations using virtual teams. Six of the eight respondents indicated that virtual teams are used within their companies from top level management all the way to technical employees, while the remaining two respondents indicated that virtual teams are used only at the middle level management. All respondents indicated they use both asynchronous and synchronous technology tools. Conference calls, video conferencing, emails, chat rooms and instant messages were identified as the primary technology tools used among virtual teams.

5.2 Virtual Team Inputs

This study focused on culture, leadership, technology and training as the main inputs expected to influence the performance of UAE virtual teams. The participants have stated that the ability of their virtual teams' members to use the technology effectively and successfully plays an important role in the success of virtual teams. In fact, most of the interviewees have mentioned that they were satisfied with the teams' use of technology which help them achieve their planned goals. Furthermore, most of the participated have indicated that their virtual teams' members are familiar with the types of technologies they use, so they were able to use it easily and successfully. These responses are consistent with previous research which suggested that virtual team members who have the appropriate skills and equipment will perform more effectively and are more satisfied (Horwitz et al., 2006; Kayworth & Leidner, 2000 and Nydegger & Nydegger, 2010).

Even though the participants indicated their satisfaction with the tools used, they specified that technical issues such as weak or unstable internet connection constitute a major problem that affect the effective and efficient use of technology. Also, participants indicated that they usually rely on technical staff to resolve technical issues, which may cause delays and waste of time. Since most of the participants indicated weak or unstable internet connection, this may be explained as a result of fairly new technical infrastructure developed in the UAE (Sbia et al., 2014). The technical issues may also be as a result of the technology adopted by the company itself which require further investigation on the company side.

Training is a vital factor in improving the performance of virtual teams (Nydegger & Nydegger, 2010). All participants indicated the importance of training to them that contributed to their success. Participants have mentioned that they have received training sessions to improve their use of technology. Few participants indicated that they received cross cultures training which helped them understand the different cultural background of other team members. They also indicated that training was always provided to new team members who are not familiar with the technologies used. It is clear that the companies are focusing on the virtual teams' technical performance yet little attention is paid to culture difference that may influence the team performance and satisfaction as suggested by previous research (Anawati & Craig, 2006). Lack of cross culture training may have contributed to the inefficient and ineffective performance of the team members as perceived by participants (Grosse, 2002). Some of the participants indicated that they find it difficult to develop and implement innovative ideas within their virtual team. When asked to further explain why, participants' indicated that the use of a second language represented the biggest barrier in addition to the sense of distance from other team members. Further, they find it difficult to discuss those ideas given the different time zones and different locations. Some participants further elaborated that they felt isolated, and missing the overall sense of belonging to a common goal.

These findings suggest that even though the participants have expressed satisfaction with their team performance, they found it challenging to work in virtual teams given the geographic distance, different time zones and different cultural background. Research have indicated the importance of using training and effective feedback from leadership to address those challenges (Gabelica et al., 2012). Difficulty in making decisions was found to be another challenge in a virtual environment. Participants indicated that decision making can be also difficult when using video conferences or audio conferences due to lack of face-to-face meetings. Participants also found it more difficult to make decision in large size teams.

5.3 Virtual Team Mediators

This study focused on communication, trust and feedback as mediating factors that influence virtual team performance of UAE nationals. With respect to communication, all participants indicated that virtual teams' members must be able to share information proactively and exchange opinions and ideas effectively. They emphasized the importance of ensuring that messages have been understood especially within multicultural teams. As for feedback, they also emphasized the importance of the team leader's role in ensuring that all team's members have enough information about the tasks or projects as well as deadlines and time frame to accomplish their jobs. Almost all participants indicated the importance of having the leader to establish a shared common goal for the team and enhance the relationship among team members which in turn build trust and collaboration among them.

As UAE nationals with English as their second language, participants indicated that they have difficulty in expressing opinions and sharing information with their team members. Also, participants indicated that managing conflicts among team members was a major obstacle to their performance. In addition, since some of them did not receive cross culture training, they sometimes had difficulty in understanding others behaviors and ideas. Participants indicated that miscommunication or sometimes lack of communication made their task more complex. Also, some participants who used more asynchronous technology missed the non-verbal communication cues that they found important to establish an effective relationship with other team members. Further, lack of face-to-face meeting was indicated as a problem especially when managing and arranging meetings.

5.4 Virtual Team Outputs

Finally, most of our interviewees have mentioned that the performance of their virtual teams is high, effective, professional and is increasing year after year. They have indicated that their virtual teams' members are very cooperative and they are working effectively virtually which made them very satisfied. Some interviewees have also mentioned that their companies always assess the performance of their team's members and proactively take steps to address any issues.

6. Conclusion and Recommendations

The use of virtual teams is becoming an essential tool for many organizations in today's world because of the development in technologies and globalization. In fact, virtual teams will continue to influence the business world. Cultural differences, geographic distance, communication problems and lack of shared goals are a few of the obstacles that virtual teams face. Companies offering effective training and leadership can address those obstacles. Results of this study were consistent with previous research studies; however the use of UAE nationals as the sample under investigation and within the UAE context contributed to the body of knowledge.

Multinational companies operating in the United Arab Emirates can benefit from this research by having a better idea about the challenges that virtual teams face in order to develop effective training programs. For example cross culture training was highlighted as helpful in enhancing the performance of virtual teams. Arranging frequent face-to-face meeting among virtual team members would also minimize the language barrier and improve the communication among the virtual team members. Results of this study may not be generalized as interviews were conducted with only eight virtual team members. Further interviews will be needed to be able to verify our results. Additionally, extending the interviews to include none UAE nationals would provide a comparative perspective that may be helpful to multinational companies when using virtual teams. Additional quantitative research method would provide an empirical evidence to the performance of virtual teams within the UAE. Future research may also examine other factors such team design and size, leadership style, team identity, conflict management and more of the factors that were included in the IMOI framework.

References

- Anawati, D., & Craig, A. (2006). Behavioral adaptation within cross-cultural virtual teams. *IEEE Transactions on Professional Communication*, 49(1), 44–56. <https://doi.org/10.1109/TPC.2006.870459>
- Bradner, E., Mark, G., & Hertel, T. D. (2005). Team size and technology fit: participation, Awareness, and rapport in distributed teams. *IEEE Transactions on Professional Communication*, 48(1), 68–77. <https://doi.org/10.1109/TPC.2004.843299>
- Brahm, T., & Kunze, F. (2012). The role of trust climate in virtual teams. *Journal of Managerial Psychology*, 27(6), 595–614. <https://doi.org/http://dx.doi.org.ezproxy.hct.ac.ae/10.1108/02683941211252446>

- Creswell, J. W. (2013). *Qualitative inquiry & research design: choosing among five approaches* (Vol. 3rd). Thousand Oaks, Calif;London; SAGE.
- Forester, G. L., Thoms, P., & Pinto, J. K. (2007). Importance of goal setting in virtual project teams. *Psychological Reports*, 100(1), 270.
- Gabelica, C., Bossche, P. V. den, Segers, M., &Gijsselaers, W. (2012). Feedback, a powerful lever in teams: A review. *Educational Research Review*, 7(2), 123–144.
- Grosse, C. U. (2002). Managing Communication within Virtual Intercultural Teams. *Business Communication Quarterly*, 65(4), 22–38.
- Hertel, G., Konradt, U., &Orlikowski, B. (2004). Managing distance by interdependence: Goal setting, task interdependence, and team-based rewards in virtual teams. *European Journal of Work and Organizational Psychology*, 13(1), 1–28.
- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills CA: Sage Publications.
- Horwitz, F. M., Bravington, D., & Silvis, U. (2006). The promise of virtual teams: identifying key factors in effectiveness and failure. *Journal of European Industrial Training*, 30(6), 472–494.
- Hunsaker, P. L., &Hunsaker, J. S. (2008). Virtual teams: a leader's guide. *Team Performance Management*; Bradford, 14(1/2), 86–101.
- Ilgen, D. R., Hollenbeck, J. R., Johnson, M., &Jundt, D. (2005). TEAMS IN ORGANIZATIONS: From Input-Process-Output Models to IMOI Models. *Annual Review of Psychology*, 56, 517–543.
- Jarvenpaa, S. L., &Leidner, D. E. (1999). Communication and trust in global virtual teams. *Organization Science*, 10(6), 791–815.
- Kankanhalli, A., Tan, B., & Kwok-Kee Wei. (2006). Conflict and Performance in Global Virtual Teams. *Journal of Management Information Systems*, 23(3), 237–274.
- Kayworth, T., &Leidner, D. (2000). The global virtual manager: a prescription for success. *European Management Journal*, 18(2), 183–194.
- King, C. (2007). Building trust in global virtual teams: an innovative training model. *Training & Management Development Methods*, 21(3), 315–320.
- Leedy, P. D., &Ormrod, J. E. (2014). *Practical research: planning and design* (Vol. Pearson new international;Tenth;). Harlow, Essex: Pearson.
- Lin, C., Standing, C., & Liu, Y.-C. (2008). A model to develop effective virtual teams. *Decision Support Systems*, 45(4), 1031–1045.
- Martins, L. L., &Schilpzand, M. C. (2011). Global Virtual Teams: Key Developments, Research Gaps, and Future Directions. In *Research in Personnel and Human Resources Management* (Vol. 30, pp. 1–72).
- Maznevski, M. L., &Chudoba, K. M. (2000). Bridging space over time: Global virtual team dynamics and effectiveness. *Organization Science*, 11(5), 473–492.
- McDonough III, E. F., Kahn, K. B., &Barczak, G. (2001). An investigation of the use of global, virtual, and collocatednew product development teams. *Journal of Product Innovation Management*, 18(2), 110–120.
- Mitchell, A., &Zigurs, I. (2009). Trust in Virtual Teams: Solved or Still a Mystery? *Database for Advances in Information Systems*, 40(3), 61–83.
- Nydegger, R., &Nydegger, L. (2010). Challenges In Managing Virtual Teams. *Journal of Business & Economics Research*, 8(3), 69–82.
- Pinjani, P., &Palvia, P. (2013). Trust and knowledge sharing in diverse global virtual teams. *Information & Management*, 50(4), 144–153.
- Randall, M., &Samimi, M. A. (2010). The status of English in Dubai. *English Today*, 26(1), 43–50.
- Riopelle, K., Gluesing, J., Alcordo, T., Baba, M., Britt, D., McKether, W., Wagner, K. (2003). Context, task, and the evolution of technology use in global virtual teams. In C. B. Gibson & S. G. Cohen (Eds.), *Virtual teams that work: Creating conditions for virtual team effectiveness*. San Fransisco: Jossey-Bass.
- Saafein, O., &Shaykhian, G. A. (2014). Factors affecting virtual team performance in telecommunication support environment. *Telematics and Informatics*, 31(3), 459–462.
- Sbia, R., Shahbaz, M., &Hamdi, H. (2014). A contribution of foreign direct investment, clean energy, trade openness, carbon emissions and economic growth to energy demand in UAE. *Economic Modelling*, 36, 191–197.
- Schweitzer, L. (2005). *Understanding virtual team effectiveness: An exploration* (Ph.D.). Carleton University (Canada), Canada.
- Staples, D. S., & Zhao, L. (2006). The Effects of Cultural Diversity in Virtual Teams Versus Face-to-Face Teams. *Group Decision and Negotiation*, 15(4), 389–406.
- Stephens Balakrishnan, M. (2013). Methods to increase research output: some tips looking at the MENA region. *International Journal of Emerging Markets*, 8(3), 215–239.
- Turel, O., & Zhang, Y. (Jenny). (2010). Does virtual team composition matter? Trait and problem-solving configuration effects on team performance. *Behaviour & Information Technology*, 29(4), 363–375.
- United Arab Emirates - Geert Hofstede. (n.d.). Retrieved January 15, 2017, from <https://geert-hofstede.com/arab-emirates.html>