Skill Assessment Analysis of Management Consultants in Saudi higher education - A qualitative study

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Abstract:

The objective of this study is to determine the current skill set exhibited by top university management consultants in Saudi Arabia, and whether that skill set covers the combined 21 century skills and digital skills. The study adheres to the qualitative paradigm and collects data based on semi-structured interviews that are instructed by three-stage skill assessment analysis. The study sample represents the population of Saudi universities where university consultants and representatives are interviewed for the purpose of generating patterns and identifying themes with respect to the skill set exhibited by and anticipated for Saudi university management consultants. Toward this end, the analysis in this study reveals a skill gap in digital skills as opposed to typical 21 century skills. On the consulting process level, the analysis reveals that top management consulting positions at Saudi universities have no specific job descriptions or job specifications. The analysis shows further that the nature of management consulting at Saudi universities is blurred and not well understood. The analysis also supports that though top management university consultants are mostly service oriented there is too much emphasis on strict university procedures and policies that don't necessarily apply to their work processes. It seems to hinder their proactivity, autonomy, and problem solving when addressing the particular and evolving problem solving of top university management. Moreover, consultants generally identify the skill set needed for top university

management consulting process in Saudi Arabia along the lines of the combined skill set of 21 century skills and digital skills expounded (Van Laar et al., 2020). On the management consultant individual level, the analysis supports that that though consultants feel generally comfortable with typical 21 century skills, they express that they are more or less challenged with the digital counterparts. In this fashion, the study bears Saudi sociocultural relevance amid the 2030 vision of the kingdom that emphasizes the value of human capital and efficient deployment of scarce resources.

Keywords: Skill Assessment, Management Consultants, Saudi higher education

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Introduction:

The value of knowledge-oriented human capital to economies and institutions can hardly be overestimated (Jara et al., 2015). Human capital brings to institutions sets of skills that are crucial for survival in an ever increasingly competitive and demanding world (Van Laar et al., 2017). In general, human capital skills can be classified into 21 century skills and digital skills (Van Laar et al., 2020). Whereas 21 century skills define typical technical, information, communication, collaboration, critical thinking, creativity, and problem-solving skills; digital skills define the digital counterparts of those typical skills (see, e.g., Ferrari, 2012; Van Deursen et al., 2016; Van Laar et al., 2017). It thus follows that, unlike 21 century skills, digital skills necessarily mandate continuous learning and persistent knowledge update as new technologies and novice digital solutions emerge (Song and Ling, 2011) Regarding the determinants of skills sets, (Jara et al. (2015)) maintain that 21 century skills tend to be determined by cultural and socioeconomic influences. Moreover, Van Dijk (2005) employs resource and appropriation theory to argue that in addition to demographic and socioeconomic contexts, motivational and temporal factors go a long way in determining digital skills. Further, Helsper, E. J., Eynon, R. (2013) establish that human capital skills tend to vary non-trivially with several factors, including, e.g., education background and career experience. In this respect, Van Laar et al. (2020) identifies personal (i.e., psychological) and positional (i.e., demographic, social, economic, and cultural) variations when understanding the level of digital skills

at the individual level. Furthermore, within the two broad categories of 21 century skills and digital skills, determinants of individual skills can be greatly non-overlapping when deciding which determinant is mostly significant for a particular skill Ahonen, A. K., Kinnunen, P. (2015) and Binkley et al., (2012) specifically discussed the methods and approaches via which 21 century skills can be determined, assessed, and taught. On this subject, Van Deursen et al., (2016) explain that personal or psychological determinants tend to be accentuated for problem solving, creativity, and critical thinking. Van Laar et al. (2020) emphasize that motivational, socioeconomic, and temporal determinants are strongly associated with information, communication, and technical skills. In essence, though typical 21 century skills have received overwhelming attention in the literature addressing human capital skills and digital skills are starting to receive comparable momentum (see, e.g., Funke et al., 2018). Here, Calvani et al. (2012) specify digital skills in terms of the technical considerations governing communication and problem solving. Griffin et al. (2012) maintain that in technical skills in this technology-driven world are shaping the typical expectations of educational outputs and the requirements for competitive employment. Barak, M. (2018) holds that assessment of digital skills defines an activity that in and by itself may portray a picture as to the learning and paradigm shift considerations of employees. Essentially, digitally qualified employees tend to reflect a degree of progression and flexibility as opposed to paradigm paralysis and resistance to change Barak, M. (2018). Siddiq et al. (2016) describe that the set of digital skills has far more elements than just the set of technical skills. They characterize digital skills along the lines of using contemporary information and communication technologies to create business solutions that contribute toward achieving organizational goals. Indeed, this characterization of digital skills is consistent with that given by Balau, N., Utz, S. (2017) where the information sharing aspect of

digital skills is conceptualized to define a strategic behavior that dictates achieving organizational goals.

In view of the preceding, though the notion that human capital skills are essentially leading to the success of both people and institutions is well-documented, the literature thoroughly and specifically addressing skills needs assessment is still largely scant (Voogt, J., & Roblin, N. P. (2012)). In particular, investigating the actual presence of such skills among professions and specific groups of human capital is greatly yet to be established (Siddiq et al., 2016). This study addresses this issue by directly investigating and identifying the skill set exhibited by and anticipated for top university management consultants in Saudi Arabia. The study therefore has Saudi sociocultural relevance amid the 2030 vision of the kingdom that emphasizes the value of human capital and efficient deployment of scarce resources. The study, in this fashion, adheres to the qualitative paradigm and collects data based on semi-structured interviews that are instructed by three-stage skill assessment analysis. This introduction, therefore, concludes with the research questions, and the rest of this study presents the three-stage skill assessment analysis, the qualitative study, the concluding results and limitation.

Research questions

RQ1: What is the skill set currently exhibited by management consultants in Saudi universities?

RQ2: What is the skill set anticipated of management consultants in Saudi universities?

Skill Assessment Analysis:

Throughout the skill assessment analysis in this study, a particular emphasis is placed on assessing the human capital skill level of top management university consultants in Saudi higher education based on the two broad categories of 21 century skills and digital skills (Van Laar et al., 2020). Indeed, understanding human capital skills in terms of these broad categories is consistent with the educational environment of a modern knowledge society (Anderson, R. 2008). In this vein, Autor et al. (2003) reports empirical evidence

supporting the notion that in a technology-driven world, digital skills naturally complement the rather traditional 21 century skills. The Benedek et al. (2016) incorporate, within a psychomotor assessment framework, traditional skills and digital skills in explaining teacher creativity. Calvani et al. (2012) employ digital skills to evaluate the competence level of secondary school students. Chen et al, (2015) establish that a combination of traditional and digital skills is antecedent to career success. Çoklar et al. (2017) states that digital skills largely determine the effectiveness of modern knowledge extraction strategies. Dong et al. (2017) argue that digital skill development is a prerequisite for enhanced levels of employee creativity. Lee, K. S., & Chen, W. (2017) categorize human capital skills into culture capital, technical capital, and networking skills. They further show that such skills are essentially reflected in the levels of employee productivity and career prospects. Lin et al. (2016) contend that in higher education digital problem solving is of paramount importance.

In view of the preceding findings, the objective of the skill assessment analysis for management consultants at Saudi public universities is to determine the current skill set exhibited and whether that skill set covers both 21 century skills and digital skills. Whereas, the current skill set exhibited define available (or current) capabilities, the combined set of 21 century skills and digital skills define anticipated (or required) skills. Skill gaps are then identified depending on the extent that the determined skill set may fall short of the required set (Brigid, 2013). In this fashion, the skill assessment analysis of this study may adhere to the three phases of the the skill needs analysis model initially advanced by McGehee et al, (1961). The three levels are the institutional university, operational-process management consulting and the individual management consultant level (Arraya et al., 2017).

Skill Assessment Analysis at the Organizational-Institutional University Stage

Skill assessment analysis for management consultants at Saudi universities is designed to decide whether the universities are satisfied with the current skill set exhibited by consultants. The analysis then proceeds into identifying the consulting skill set required or anticipated by the top management of Saudi universities (Holden et al., 2015). This level of the skill assessment analysis is therefore satisfied by identifying the typical objectives of management consulting of Saudi universities at the strategic level and whether those objectives are met by current skill set exhibited by management consultants (Kodwani, 2017). For purposes of this level of analysis, data collected qualitatively based on semi-structured phone interviews with top management administrators of Saudi universities. Collected data is then analyzed following a protocol of thematic qualitative data analysis.

Skill Assessment Analysis at the University Top Management Consulting Process Stage

In view of the above skill assessment analysis at the organizational-institutional university level, the objective of the skill assessment analysis at the management consulting process level is to identify the specific skill set that is typically needed for top university management consulting in Saudi Arabia. The ultimate thesis of this stage of the analysis is to uncover the set of consulting knowledge base and capabilities that is considered crucial for effective and efficient top university management consulting (see, e.g., McGehee and Thayer, 1961). Denby (2010) describes that this stage of the analysis revolves around analyzing the nature, specifications, and general description of the top university management consultant in Saudi Arabia. For purposes of this level of analysis, data is collected qualitatively based on semi-structured phone interviews with a sample of top management consultants at Saudi universities. Collected data is then analyzed following a protocol of thematic qualitative data analysis.

Skill Assessment Analysis at the Top Management University Consultant Stage

At the individual top management university consultant stage, the focus is on uncovering individual-level skill gaps (Shree, 2017; Oblensky, 2017). For purposes of this stage of the analysis, data is collected qualitatively based on semi-structured phone interviews with a sample of top management university consultants at Saudi universities. Collected data is then analyzed following a protocol of thematic qualitative data analysis. The data collected specifically anchored on the individual 21 century skills of technical skills, information skills, communication skills, collaboration skills, critical thinking skills, creativity skills, and problem-solving skills, and their digital counterparts.

Qualitative study

The study adheres to the qualitative paradigm, which completely instructs research design, data analysis, and presentation. The study's choice of paradigm is conducive to both the research questions and the primary procedure instrument employed for data collection. As opposed to the traditional scientific approach, the qualitative paradigm doesn't require a theoretical framework a priori. In this regard, the study is primarily concerned with processes, meanings, understandings, circumstances, and interpretations of the perceptions and experiences of top university management consultants and top management representative at Saudi universities. It follows that the inductive nature of this study may in fact lead to formulating hypotheses and testable statements while grounding a theory that may be explored further in future research. The study typically maintains the ontological assumption of socially constructed (and subjective) reality (i.e., constructivism) and the epistemological assumption of contextualized interpretation (i.e., interpretivism) (Cresswell, 2007). This reiterates the objective of the study in terms of human capital skill set of top management consultants at Saudi universities along with their attitudes to continuous learning and knowledge update.

As opposed to deductively instructed quantitative studies, typical qualitative research is inductive and characterized by "inquiring into the meaning individuals or groups ascribe to a social or human problem" (Cresswell, 2013; p. 37). In essence, "Qualitative researchers tend to collect data in the field at the site where participants' experience the issue or problem under study" (p. Cresswell, 2013; 37). To apply the inductive principles underlying this qualitative study design, this study approaches management consultants and top management representatives at Saudi Arabian universities with the objective of collecting in-depth and context-oriented data about their skills, dispositions, learning aptitude, and perceptions with respect to their problem-solving contributions.

Approach to qualitative analysis:

Whereas quantitative studies, by definition, are preceded by established theoretical frameworks that define hypotheses and conceptual predictions, qualitative studies are essentially designed to uncover themes and generate meanings from data collected contextually and based on pattern identification analyses (Creswell, 2013). In this fashion, this study applies the thematic data analysis approach to inductive qualitative studies. The thematic approach to analyze data inductively is instructed by the research questions of the study and the lack of predefined theoretical frameworks. This approach is further justified given that the objective of the study is to determine the current skill set exhibited by top university management consultants in Saudi Arabia based on data collected primarily with respect to their know-how, perceptions, and learning aptitude. It thus follows that; the outcomes of this study will take the form of identified themes based on flexible analysis of the contextual content of statements given in response to open ended stimuli. Furthermore, the semantic analysis in this study can be clearly distinguished from the qualitative latent analysis due to the focus of this study on categorical and unequivocal details rather than underlying connotations or implied suggestions and undertones. Moreover, the qualitative style of this study may allow for developing conceptual frameworks on the subject of skill

assessment, which can be employed by future research to formulate hypotheses and advance testable statements with respect to human capital and the extent to which a particular skill set is attained.

Data Collection:

The objective of this study is to determine the current skill set exhibited by top management consultants at Saudi universities and whether that skill set covers both 21 century skills and digital skills. This study employs an open-ended instrument to data collection that is represented by a semi-structured interview process and exemplifies a style of semantic analysis formalized by Braun and Clarke (2006).

Participants and purposive sampling strategy:

To achieve its objectives, this study adheres to a purposive sampling mechanism that entails arrangements for direct one-to-one contacts direct between the researcher and the respective study participants. The study defines two types of particpants: [1] the top management university consultants, and [2] the top management university representatives. The selection process of consultants and representatives participating in this study is carried out on a purposive basis that satisfies three criteria: [1] consultants and representatives have to be directly involved in top university management problem solving; [2] representatives holding a senior and permanent management position with a clearly defined line authority and consultants holding a senior, but not necessarily permanent or line position ; and [3] pairs of top university management consultants and representatives are affiliated on a one-to-one basis with different Saudi universities. Following Patton's (2002) approach to purposive sampling, the three selection criteria abided by in this study contribute toward a representative study sample that is collected with no bias at a balanced data generating process.

In view of this purposive sampling strategy, a total of twenty top university management consultants and representatives were identified and reached via official work phone over the first day of

the work week requesting their voluntary participation in a one-to-one semi-structured phone interview with respect to the subject of human capital skill set of management consultants in Saudi higher education. Whenever an identified participant can't be reached the first day of the work week, the attempt is repeated for the rest of workdays until that participant is successfully reached. In this concern, though all 20 pairs of potential participants were reached, fourteen consultants and 10 representatives agreed to participate in the study. Toward this end, under the light of the three purposive selection rules stated above, a decision is made to limit the number of consultants interviewed to the number of representatives agreed to the interview. This results in conducting phone interviews with ten consultants and ten representatives.

Semi-structured phone interviews and ethical considerations:

Prearrangements for Phone interviews were carried out to decide on the day and time of the interview according to the individual convenience and preference of participants. Four days prior to the semi-structured interview, a statement where the objectives of this study were clearly detailed is communicated to the official e-mail address of the individual participant to confirm the day, date, and time of the interview, and to stress the fact that the participant has the right to terminate the interview at any point. In the same e-mail message, the participants were directly asked if they wish for their identity to be revealed and whether they agree to have the semi-structured interview recorded. On this matter, though all participants agreed to have the interviews recorded, they did not wish to have their identities revealed. Ultimately, all data collected via the semi-structured interviews were saved onto a protected file.

The semi-structured interviews were carried out under the guidance of this study's research questions. Wherever possible and appropriate, the author encouraged participants to express their perceptions and expand on their experiences and views.

Analysis of qualitative data:

Throughout the semi-structured interviews, the research directed the path of conversations according to the narrow objectives of this

study. The research used the terms 'skill set,' 'current skills,' 'anticipated skills,' 'digital skills,' 'technical skills,' 'information skills,' 'communication skills,' 'collaboration skills,' 'critical thinking skills,' 'creativity skills,' and 'problem-solving skills' to add structure to interviews according to the skill assessment analysis presented above. Data collected at the interviews were then analyzed and reported in accordance with the semantic analysis style pioneered by Braun and Clarke (2006). This style of qualitative data analysis codifies a sequence of six phases: formalization, coding, generating themes, reviewing themes, defining themes, and writ up. Applying this style, the semi-structured interviews were formalized in terms of duration and work count. This followed by coding the respective interviews according to the skill-related terms framing the structure of the interviews. Accordingly, themes were generated, reviewed, and defined based on note taking relative to the structure coding of the interviews using the WordPress semantic analysis computer program. Toward this end, this study's phone interviews were transcribed while taking initial notes guided by the research questions. Eventually, instructed by the skill assessment analysis highlighted above along with the interview structure skill-related terms, the following themes were generated and grouped into representatives' themes and consultants' themes:

Major theme (university stage analysis) - top university management representatives:

Management consults possess traditional technical, information, problem solving, critical thinking, communication, collaboration, and creativity skills, but not necessarily digital: representative unanimously expressed those consultants though are capable of organizing and evaluating information, are often facing challenges with respect to exploiting digital and skill-intensive technologies. Consultants are perceived by top management to encounter difficulties whenever new technologies and digital solutions emerge. One representative stated "the consultants here prefer to do things

the old the fashion since this is what they are experienced with."
*Another representative stated "should consultants start to efficiently
make use of the abundant technological resources available, our
jobs and their jobs will be made a lot easier."*

Major themes (analysis of consulting job process and consultant
individual skills) – top university management consultants:

*Management consulting jobs at Saudi universities don't have job
description: management consultants interviewed for purposes of
this study agreed that their jobs are not well specified or described.
One consultant stated "my line of work is not very clear here. I
don't have a clear idea about the criteria they are going to evaluate
my work against." Another consultant stated "my job doesn't have
a description or specification at this university. My work hours are
not even established according to a schedule." Almost all of the ten
consultants interviewed described that they do most of their
assignments from home with no regular work hours. One
consultant stated "sometimes I spend the entire weekend working
not because of the busy work schedule but because I don't even
have a schedule and tend to do the bulk of my work activities on a
contingent basis based on phone calls." Another consultant stated
"though I work on a currently permanent program of strategic
planning, my work can hardly be organized across various sectors
at the university. This is because I don't have a line authority over
these sectors." Another theme identified that is closely related to
this major theme of lack of job descriptions is that management
consulting positions at Saudi universities don't have clearly
prescribed recruitment, hiring, or retention guidelines. The pattern
uncovered in this regard is that almost all management consultants
interviewed for purposes of this study are senior college professors
with outstanding research records. These consultants have typically
enjoyed strong professional relationships in the past with key
university management figures directly requesting their consulting
services, opinions, and solutions.*

*Management consultants are well-versed in traditional skills, but
admittedly less so in digital skills: management consultants admit*

that their typical skills that reflect their background and career experience far exceed their digital skills that reflect continuous learning and knowledge update. One consultant stated "the library is still my main source of information. I simply don't trust sources online." Another consultant stated "I prefer qualitative research to quantitative data analysis because the technological developments in the latter is a lot faster."

Management consultants need to be trained in programing skills: management consultants in this study declare that their basic digital skills, which don't cover programming languages, are restraining their problem solving. One consultant stated "our problem solving is dependent on the productivity of the computer programmers the university hires for us." He further explains that due to the fact that the consultant and the programmer don't necessarily speak the same language, the efficiency of problem solving is hindered.

Management consultants hold a positive attitude toward learning: management consultants interviewed in this study tend to welcome continuous learning and meaningful endeavors to have their knowledge and know-how updated. Consultants interviewed in this study generally didn't exhibit attitudes of paradigm paralysis or resistance to change. On the contrary, they sounded fairly flexible and open for paradigm shifts. One consultant stated "I was a college professor my whole life and continuous learning is in my very texture." Another consultant stated "I admit that my digital skills are not superb, however I am always willing to learn." Yet another consultant stated "in this day and age of constantly evolving technologies and digital solutions, one can never deny that our need to embark on continuous learning activities is now larger than ever before." This identified them is greatly in line with Barak (2018) in that the acquisition of digital skills could be a significant factor when determining the flexibility of employees and the extent to which they welcome change posed by emerging technologies and digital solutions.

Concluding Results and Limitation:

The qualitatively generated themes above instructed by the formal skill assessment analysis undertaken in this study shows the following results. On the organizational-institutional university level, top management representatives of Saudi universities though are satisfied with the skill set of their consultants when traditional university management consulting areas are involved, are less satisfied when digital or non-traditional areas are involved. For top management representative of Saudi universities, traditional management consulting areas are identified as organizational audits, formulation of strategic plans, and design and review of programs. digital and nontraditional areas are identified as data analysis, implementation support, and program communication strategy. In this view, the analysis reveals a skill gap in digital skills as opposed to typical 21 century skills. On the consulting process level, the analysis reveals that top management consulting positions at Saudi universities have no specific job descriptions or job specifications. The analysis shows further that the nature of management consulting at Saudi universities is blurred and not well understood. The analysis also supports that thought top management university consultants are mostly service oriented, too much emphasis on strict university procedures and policies that don't necessarily apply to their work processes seems to hinder their proactivity, autonomy, and problem solving when addressing the particular and evolving problem solving of top university management. Moreover, consultants generally identify the skill set needed for top university management consulting process in Saudi Arabia along the lines of the combined skill set of 21 century skills and digital skills expounded in Van Laar et al. (2020). On the management consultant individual level, the analysis supports that that though consultants feel generally comfortable with typical 21 century skills, they express that they are more or less challenged with the digital counterparts.

In view of the preceding presentation, it's imperative to emphasize the fact that the three-stage skill assessment level analysis

undertaken in this study is conducted exclusively based on qualitative data collection and analysis. Though the analysis shows that typical 21 century skills are exhibited by and digital skills are yet anticipated of management consultants at Saudi universities, qualitative data collection is often criticized for being biased and anecdotal (Creswell, 2013). Furthermore, qualitative data analysis is also inductive in nature and is subject to great deal of generalization and the production of stereotypical results and conclusions (Ritchie and Lewis, 2003). Future research is encouraged to explore the same subject while employing different research designs and incorporating theoretical frameworks.

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