Title	現代的な人的資源管理のデータ科学への展開：サウジアラムコにおける知識管理との統合
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Citation	
Issue Date	2022-12
Type	Thesis or Dissertation
Text version	ETD
URL	http://hdl.handle.net/10119/18185
Rights	
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学 位 の 種 類	博士（知識科学）		
学 位 記 番 号	博知第 315 号		
学 位 授 与 年 月 日	令和 4 年 12 月 23 日		
論 文 題 目	Evolving Modern Human Resource Management as a Science: Integration with Knowledge Management in Saudi ARAMCO		
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論文の内容の要旨

The efforts by Google and Oracle have changed the idea of "modern human resource management (HRM)". Their efforts have reminded us to rethink modern HRM. In addition, the application of artificial intelligence (AI) and data science approaches in modern HRM also influenced us to rethink and reimagine "modern HRM". Therefore, the main purpose of this dissertation is to develop a framework for "evolving modern HRM as a data science through the integration of HRM with KM".

To answer the research objectives, a case study using both qualitative and quantitative approaches of interviews and an online survey was conducted. The qualitative part was carried out by interviewing professionals from Saudi ARAMCO. Furthermore, the interview data were analyzed thematically. In the case of quantitative research, which consisted of both open-ended and close-ended multiple-choice questions, the data were analyzed using SPSS 26.

The results from the qualitative data analysis show that professionals use ShareK platform both traditional and modern HRM. The result reveals that professionals use ShareK platform i.e., training and evaluating, which is broadly considered traditional HRM. On the other hand, the results of this research interestingly show that professionals also use ShareK platform for psychological safety, dependability, and evidence-based decisions which are considered modern HRM in this research. Importantly, the results from interviews show that psychological safety, dependability, and evidence-based decisions—are the most important components of modern HRM which is very important and new findings of this research.

The results from the quantitative analysis show that there are statistically significant differences between HRM and KM professionals regarding traditional HRM and traditional KM, because both groups of professionals namely HRM and KM are different. In addition, they are from two distinctive departments. Furthermore, their job roles are also different. Finally, their educational backgrounds are also different. So, it is expected that there are statistically significant differences

between both professional groups of people. Interestingly the results from quantitative analysis also show that there are no statistically significant differences between HRM and KM professionals regarding modern HRM. These are the most unique and significant findings of this research. We also compare our results with the findings from Google's Project Aristotle, Google's Project Oxygen, and People's Analytics (Google, 2022a; 2022b; Duhigg, 2016; Schmidt and Rosenberg, 2014; Vulpen, 2019). Especially, the results from Google's Project Aristotle, Google's Project Oxygen, and People's Analytics showed that psychological safety, dependability, and evidence-based decision—are the component of team dynamics in modern HRM (Google, 2022a; 2022b; Duhigg, 2016; Schmidt and Rosenberg, 2014; Vulpen, 2019). They showed the results qualitatively without comparing among different departments in Google. Therefore, the findings of this research are unique, new, and significant in the HRM and KM community by comparing both professionals regarding modern HRM.

The results were verified by providing evidence. In this research, all professionals supported the results regarding modern HRM and its components. In this phase, the result from the comparison also supports our claims that there are statistically very significant relationships regarding all components of modern HRM. Finally, a framework of harmonization of HRM with KM was developed based on the results of this research which lay down the foundation to evolve modern HRM as a data science. First of all, the result of this research shows that the movement of acceptance of ShareK for modern HRM was led by HRM professionals. Secondly, the results of this research also show that professionals have changed their THRM system to ShareK based more flexible system for modern HRM. But the result of this research indicates that KM professionals are worried about the flexibility of the ShareK system for modern HRM, because KM professionals feel that there is needed for rigidity in the ShareK. Finally, in the future KM professionals will collaborate more with HRM and ICT professionals to have more flexibility and rigidity in their system. As a result, the concept of "VCS" will help KM professionals to change, update, and re-update the new system more flexibly with rigidity through collaboration with HRM, ICT, and other professionals. Through these collaborative ways, a new system will evolve in which modern HRM will emerge as a data science in the near future with more flexibility and rigidity.

This research provides future research directions. A qualitative study covering more interviewees from different departments of the same organization should be conducted. Secondly, the interview was conducted of Saudi ARAMCO. Therefore, qualitative research covering more departments in Saudi ARAMCO should be conducted which will provide more generalized findings. Thirdly, a comparison among more groups of professionals should be conducted. So, another detailed survey should be conducted by comparing all the departments of Saudi ARAMCO which will provide a more fine-grained generalized version of the comparison. This will eventually help to evolve HRM as a scientific discipline. Finally, our proposed framework of harmonization of HRM with KM was developed based on the results of a case analysis of one company. Therefore, another

research should be conducted by covering cases from the United States, Europe, and Japan to develop a more generalized version of modern HRM as a data science.

論文審査の結果の要旨

本論文は、組織における人事労務管理（Human Resource Management）と、知識マネジメント（Knowledge Management）が融合する過程と今後の課題を、近年の情報処理技術の進展を前提に、論じたものである。組織の従業員を対象とする人事労務の分野では、組織活動に限定されるものの、個人の活動や評価などのデータを詳細に長期にわたり集積できる。そこでデータサイエンスの良い対象となる（例えば、Google は人事データの分析に熱心であることが知られている）。

　本論文は、サウジアラビアの国有会社で、世界最大規模の石油会社であるサウジアラムコにおける、人事労務管理と知識マネジメントの融合現状を、関係者へのインタビュー（人事関係者 10 名、知識マネジメント関係者 10 名）と質問紙調査（両部門の 284 名からの回答、回収率 56%）によって、明らかとしたものである。

　サウジアラムコは、知識マネジメントの導入に熱心であり、ShareK と呼ばれる知識マネジメントツールを全社導入している。ShareK が作る仮想コミュニティの中で、従業員どうしは組織の壁を越えて交流している。サウジアラムコの人事労務管理では、ShareK のデータを人事管理のために使っている。たとえば、当該人材の業務上の専門知識量を見積もるために使っている。

　インタビュー結果から，人事関係者と知識マネジメント関係者は、ShareK のデータを人材の育成と人材の発掘に使うことについて、同程度に期待していることがわかった。しかし、興味深い違いもあることがわかった。人事関係者は人事労務データに信頼性を求めると思いきや、ShareK が従来の人事労務データにはない活用を可能にする柔軟性を評価していた。一方で、知識マネジメント関係者は柔軟性を評価すると思いきや、ShareK の柔軟性が信頼性を必ずしも保証していないことにリスクを感じていることがわかった。この結果は、組織が知識マネジメントツールを人事管理に使うことを受け入れている事実を示していると同時に、関係者の連携が十分でなく、信頼性と柔軟性を両立させることに組織的対応の課題を残していることを意味している。

　本論文は、このように、知識マネジメントが根付いている組織の中で、知識マネジメントと人事労務管理を、情報処理技術により融合している過程を、大企業の実際のビジネスの中に確認するとともに、記録の信頼性と柔軟性の両立に、組織的課題を残している点を明らかとしたことで、学術性に有用な研究であり、博士（知識科学）の学位論文として認める。