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AFFECT OF BIG DATA ON FIRMS PERFORMANCE: A FIELD STUDY

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***Abstract* — The aim of research is to gather necessary data on of the effect of big data routinization on firm performance. The primary data has been collected through a questionnaire. The secondary data has been prepared from electronic websites, Reports, books, Journals etc. The collected data has been statistically analyzed using appropriate statistical test. we used various statistical methods for reliability and hypotheses test such as Cronbach's alpha, multiple linear regression test. After analysing the data and testing the hypotheses, the study revealed that big data routinization have a significant statistical impact on the Firm performance which explains (34.5 %) of the variation in independent factor.**

Keywords — ***big data, firm, performance.***

I. INTRODUCTION

the routine is really the enemy of motivation, which is the main moderator of it. Many of the sites were buried because of the routine and many of the capabilities crashed on the rock of this routine is an enemy of all creativity, It is also contrary and contrary to excellence, if we come to the employee or employee, we find their lives in most of the typical routine overloaded rigid systems that do not help creativity and push the progress and thinking of this employee or employee, so we say that in order to achieve the distinction must We cancel this routine If we come to the government or private sector, we find some employees working but they are in a convincing unemployment and their work here is to come and go at the end of the day but they are really able and in themselves talents but they have not been discovered and have not come out of existence and from here I call on our sector officials and employees to try to take out all their creative creations And to do all the possibilities to reach the goals and access to international and global competition, which requires more work and effort hard and full of strength and activity also in conclusion I do not forget here to whisper in their ears that if you receive routine you must find all the incentives and humiliated the Obstacles and increase the material and moral potential in order to get to the excellence and creativity. Through this study the author strives to identify the availability levels of Big Data Routinization and Firm performance, and to what extent big data routinization on firm performance.

II. LITERATURE REVIEW

Big data "This is an area that analyses the methods of analysing, removing system information, or otherwise dealing with data sets, which is too big or complex to cope with traditional data processing software(Abell, Felin, & Foss, n.d.; Alraja & Alomian, 2013a; Malkawi, Nazem M. M. Al-ahmad Alraja & Alkhayer, 2010; Rath & Pattanayak, 2018). Data with many issues (rows) offer maximum data. Power, while high complexity (more attributes or columns) with data can lead to a higher incorrect discovery rate. Data, data storage, data analysis, search, sharing, transfer, view, query, update, volume, varieties, and data in large data challenges the speed is. Other concepts that are later attributed to the larger data (in fact the data is noisy) and the privacy and data source information.

Based on the organizational theory, the organization's routines are "repetitive, acceptable patterns" of many actions performed by many actors(Alraja & Kashoob, 2019; Hilbert & López, 2011). Buckets are used in the evolutionary economy and generally in principle of evolution - as a social regulator - it is a mechanism that serves as biological genes, some specific behaviour and can move knowledge(Alraja & Malkawi, 2015; Science Staff, 2011). In addition, it is also used in research literature on literary learning, serving as "memory", especially inaccessible, token knowledge. In Strategic Management Research Literature, especially in organizations' resource-based approaches, the organization's routines are used as organizational and dynamic capacities. Despite extensive use of the conceptual concept in research literature, there is still a lot of discussion about the organization's routine routines. For example, the scholars consider both of them as the source of sustainability and a driver of organizational change. In an effort to better understand the "inside" of organization's routines and presented a difference between the common aspects and routines(Alraja, Faroug, Uddin, & Yousoof, 2016; Hilbert & López, 2011; Hussein, Ahmed, & Alraja, 2017).

Big data provides help to get the transformation of digital type to the organization, which is a positive

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impact. Moreover, it provides competitive advantage to the organisation regarding the transactional data processing and decision making as well as providing the services especially in innovative ways(Alraja & Alomian, 2013b; Rasheed & Alraja, 2015; Wamba et al., 2017). Moreover, it provides the visibility to the organisation for making root causes and analysing different kinds of situation likewise organisational performance(Alraja, 2016; Rizwan, Babu, Balamurugan, & Suresh, 2018). It also provides an idea regarding the assessment of the substitute coinciding with provision of quick recommendations regarding the next generation improvement. Financial and operational performances of the organizations are visible through the big data routinization(Loebbecke & Picot, 2015; Uddin, Ahmar, & Alraja, 2016).

The high data management can be used to enhance performance at all levels of the organization, to acquire rich information and transfer transit for operational management, change knowledge, and achieve principles and ideology or establish the highest strategy The better decision making executive section for the part of the middle management and wisdom sector(Alraja, 2015; Alraja & Chikhi, 2015; Mohanty, Soumendra Jagadeesh & Harsha, 2013; Rathore, Paul, Ahmad, Anisetti, & Jeon, 2017). However, implementing the case of large data usage combined with the current database application and mobile applications can be a future research trend in dealing with the digital structure and requires resources to improve internal firm performance.

III. RESEARCH MODEL

Based on the literature the suggested model is presented in figure (1). More, the research suggests the following hypotheses:

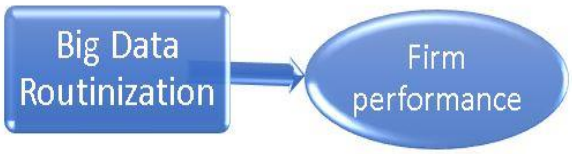

Figure (1): suggested Model

H1: Big Data Routinization will have a direct positive influence on firm performance.

IV. RESEARCH METHODOLOGY

To collect research primary data questionnaire has been distributed manually. Th item of the adopted variables in this study were prepared based on validated models (Alraja, Farooque, & Khashab, 2019; Hino, 2015). The researcher assures that the guiding instruction to get the questionnaire filled up were written in the first page and confirmed that collected data will be used for research purpose and their identity will not be released. This adopted study five–point Likert scale ranging from 1 strongly disagree to 5 strongly agree. The final version of the questionnaire was distributed to the targeted staff (110) randomly from SMEs sector in Oman, only 89 questionnaires were returned. A number of 7 questionnaires has been rejected because of some answering issues either many questions not answered or given the same. Thus, the number of valid questionnaires was 82 questionnaires with a rate of (75%), this considered as a good ratio in the field of information systems. More, as the research data was collected using a questionnaire therefore to check the validity of the collected data the reliability test (Cronbach's Alpha) was run. Whatever, the results of the above-mentioned test, as showed in table (1), confirmed the internal consistency of construct and measures validity. Moreover, for hypothesis testing the following test were used simple and multiple regression.

V. DATA ANALYSIS

The values of alpha Cronbach's as shown in table (1) big data routinization (0.691), and (0.794) for firm performance.

Table 1. Descriptive and Reliability Statistics

	N	Mean	Std. Deviation	Cronbach's Alpha
Big Data Routinization	82	4.1250	0.60253	0.691
Firm Performance	82	4.0443	0.73727	0.794

Based on the reliability test the research hypothesis will be tested using regression analysis with the big data routinization as predictor variable, and firm performance as a dependent variable.

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Table 2. Results of regression analysis [a]

Adjusted R^2	F	Sig.
0.336	42.078	.000[b]

a. Dependent Variable: firm performance
b. Predictors: (Constant), big data routinization

Table 3. the results of hypotheses test [a]

	Hypothesis B	Std. Error	Beta	t	Sig
H1	0.718	0.111	0.587	6.487	0.00

a. Dependent Variable: firm performance

In this study 82 questionnaire were valid for analysis. The adopted model in this study was statistically significant as presented in Table 2 {F = 42.078, P< 0.001} with value of adjusted R2 (0.336) this interprets (33.6 %) of the changes in the firm performance. More, big data routinization has a significate impact on firms' performance (β = 0.587; t = 6.487) see table (3).

VI. Discussion

This study aimed to determine the impacts of big data routinization on firms' performance. Most of respondents are males (67.1%) and their age ranging between 30 to less than 50 years, and the majority have a University education (73.2%). The availability level of big data routinization is high since the mean is (4.12) and the responses of the respondents are very close as the standard deviation is (0.6). More, the availability level of firms' performance is high (4.04).

The results of this study proved that big data routinization have a significant statistical effect on firms' performance and interprets (33.6%) of the variation in the independent variable (firms' performance). The study found that fair level of awareness about big data routinization and firms' performance among study sample.

Based on analysis results, firms should enhance their staff background about the importance of big data and how it could improve firm's performance i.e. develop and use big data technology may help firms in gaining competitive advantage and provide business solutions to enhance enterprise operations. For future studies, more variables should be investigated by implementing validated models such as TAM, UTAUT, TOE, ...etc.,

VII. Conclusion

The main objective of this study is identifying the impacts of big data routinization on firms' performance. Regression analysis was used to test the hypothesis, the findings show that big data routinization have a significant statistical effect on firms' performance. More efforts should be put for getting the benefits of big data to improve firms' performance.

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