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DECISION MAKING AFFORDANCES AND SENSE MAKING IN HUMAN RESOURCE ANALYTICS IN HIGH RELIABILITY ORGANIZATIONS (FAST FOOD COMPANIES) IN PORT HARCOURT, NIGERIA

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ABSTRACT

The interest, understanding, and application of Human Resource (HR) Analytics continue to increase as it affords businesses with research and practical potentials that enable them effectively support their decision-making such that they are able to make plausible and efficient decisions regarding the people side of the business. Not many studies have, however, been able to decipher the mechanism through which Human Resource Analytics has been able to support strategic decision-making as well as business performance. Using the purview of hi-tech capability, data mining tools, and supportive work culture as dimensions of decision-making affordances, this paper aims at examining the relationship between decision-making affordances and sense-making in the application of Human Resource Analytics in Fast Food Companies in Port Harcourt, Nigeria. It is a correlational study that adopted a quantitative approach. Data was gathered through the use of a structured five-scale Likert-style questionnaire distributed to twenty employees of ten major fast food companies representing highly reliable organizations in Port Harcourt. The validity of the instrument was ascertained from a pilot survey carried out on 5 employees of major fast food companies. With the aid of the Statistical Package for Social Sciences (SPSS) 23.0, the data went through two levels of analysis namely the univariate analysis, which measured the mean score of the variables as manifested in the companies, and the bivariate analysis which measured the Pearson Moment Correlation Coefficient between the three dimensions of decision making affordances and sense-making in Human Resource Analytics. On one part, the result of the analyses showed a substantive manifestation of the three dimensions of decision-making affordances and sense-making in HR analytics in companies. In the second part, it showed that with data mining tools having the strongest relationship among others, the three dimensions of decision-making affordances all related positively to sense-making in Human Resource Analytics. In addition, the analyses revealed that all three positive relationships were significant. The paper concludes that the more companies build on their Hi-tech capability, use data mining tools, and maintain supportive work culture, the more effective their sense-making and use of HR analytics and ultimately, the better their decision outcomes. It, therefore, recommends that organizations need to continue to leverage on the potential of hi-tech and data mining tools, and supportive work culture to benefit from the sense-making process of HR analytics. It contributes to improving the decisions on the people side of business and tools used for identifying and developing sense-making.

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Keywords: Data Mining Tools, Decision-Making Affordances, Hi-Tech Capability, High-Reliability Organizations, Human Resource Analytics, Sense-making, Supportive Work Culture

1.0 INTRODUCTION

Surviving in the world of business, which is constantly evolving has become a major challenge to most organizations, as these evolutions bring about disruptions to work processes (Ulrich, 2010). High-reliability organizations (HROs) have, however, continued to thrive even in the midst of these disruptions. Similarly, Werner (2012) has established that high-reliability organizations are generally, organizations that consciously focus on controlling the risks of their technical operations and thrive to maintain high levels of performance reliability and safety. These HROs operate within the principles of high-reliability organizations theory which is generally associated with highly hazardous operating environments in which records of errors could cause disastrous harm (Weick and Sutcliffe, 2007). Consequently, being reliable, to these organizations means being sensitive to their operations such that a methodical system is maintained to help them be exceptionally consistent in accomplishing their set objectives and avoid possible damaging slips. This means that such systems must have the capability of offering them insights into their operational occurrences. Following this, studies have shown that analytics is a major driver of insights into business operations (Levenson, 2018; Pierre and Trimblay, 2011; Sonja, 2015; Ulrich 2010).

With this general aegis called business analytics, the analytics concept has been examined in several business contexts as related to the objective of the examiner or study. For this paper, the objective is to understand the sense-making process and the decision-making quality and effort as regards the people side of the business (human resources). Hence, it focuses on sense-making in Human Resource (HR) Analytics, which is interchangeably used with People Analytics, Talent Analytics, and Workforce Analytics. Although with a deeper investigation of their actual meaning, these concepts may appear similar, however, a thin layer of differences, which may not be of much importance in this discourse, may be found amongst them. HR Analytics seems to be the most frequently used among the similar terms used with an eminent emergence of a universally acceptable term (Marler and Boudreau, 2017), hence the term HR Analytics will be used for this study.

The concept of HR analytics has gained so much research attention in recent times due to its much-enumerated benefits to effective decision-making for organizations that find themselves in technological and data-driven work environments (Dhanpat, Modau, Lugisani, Mabojane, and Phiri, 2018; Okwakpam, Bagshaw and Biriowu, 2020; Sonja, 2015). HR analytics aims to create business value using people or HRM-related work practices and policies in areas like recruitment, workforce engagement, workforce planning, and retention. Contrary to its undisputed values, the application and success of HR analytics seem not to have made much progress in practice, as only highly reliable organizations like Google seem to have been able to successfully leverage its benefits (Sonja, 2015). In addition, research and evidence on HR analytics have drawn empirical attention to some remote moderating reasons for the minimal attention given to HR analytics in practice (Levenson, 2011; Okwakpam, 2020; Rasmussen and Ulrich, 2015).

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Nevertheless, not many research efforts have focused on the direct impact of these remote factors responsible for the successful application of HR analytics in organizations, particularly highly reliable organizations. The absence of such an understanding undoubtedly limits the potential of organizations to fully realize the benefits of their investments in HR analytics. More so, identifying the potential of HR analytics and the enabling sense-making mechanisms for making HR decisions in high reliability organizations, can shed further light on the impact of applying HR analytics to business processes and can also inform other businesses on how to leverage analytics technologies, tools, skills and supporting culture to improve Human Resource Management outcomes. Against this background, this particular study endeavors to examine how the decision-making affordances of high-reliability organizations (HROs) have related to their sense-making efforts in HR analytics. This is to say that, the study goes a step further in HR analytics study by basically looking at the outcome of the cue detection capability of the HR analytics process in relation to the decision-making affordances available to the organization.

The sense-making lens in HR analytics is adopted because it offers a useful standpoint on the operationalization processes or mechanisms of insight generation and decision-making in the course of applying data analytics as opined by Lycett & Marshan (2016). Decision-making affordances in this regard are those enabling mechanisms that drive decision-making in a data-driven environment, and our attention is on the technical capability of the organization, data mining tools, and work culture.

2.0 STATEMENT OF THE PROBLEM

Although, a series of related studies have been able to shed light on the potentials that analytics affords organizations in terms of effective decision-making (Cao, 2015); little research, however, exists regarding the affordances offered by the mechanisms required by organizations' leaders to make data-driven decisions in the face of business and human resource uncertainty in order to continually improve performance. On another hand, there is an increasing emergence of studies on IT affordance studies that basically explore the relationships between IT affordances and organizational performance (Strong, Johnson, Tulu, Trudel, Volkoff, Pelletier, Bar-On and Garber, 2014; Volkoff and Strong 2013), there is no readily available study on the process of sense-making in HR Analytics as related to the decision making affordance constraints. Therefore, in taking a step away from these IT affordance researches which have largely been limited to understanding IT affordances at both individual and group levels, this study takes a critical step in blowing up the understanding of the potentials offered by analytics to business performance by focusing on the relationship between decision making affordances and sense-making in HR Analytics.

Drawing from these, the study specifically aims to:

i) Understand how the Hi-Tech Capability of the High-Reliability Organizations in Port Harcourt relate to their Sense-making Effort in HR analytics the decision-making affordances.
ii) Understand how Data Mining Tools of High-Reliability Organizations in Port Harcourt relate to their Sense-making Effort in HR Analytics in Port Harcourt.
iii) Understand how Supportive Work Culture in High-Reliability Organizations in Port Harcourt relates to their Sense-making Effort in HR Analytics.

2.1 Research Questions

To achieve its purpose, the study seeks to address the following research questions:

i. How does the Hi-Tech Capability of the High-Reliability Organizations in Port Harcourt relate to their Sense-making Effort in HR analytics?
ii. How do the Data Mining Tools of High-Reliability Organizations in Port Harcourt relate to their Sense-making Effort in HR Analytics?
iii. How does the Supportive Work Culture in High-Reliability Organizations in Port Harcourt relate to their Sense-making Effort in HR Analytics?

2.2 Hypotheses Statement

In consistency with its purpose and objectives, the study seeks to assess the following hypotheses:

H01: There is no significant relationship between Hi-Tech Capability of High Reliability Organizations in Port Harcourt and their Sense-making Effort in HR analytics.

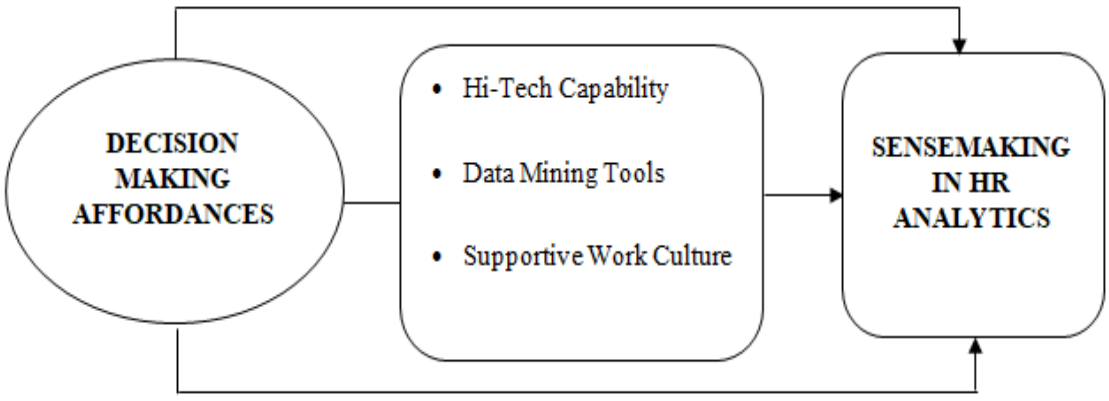
H02: There is no significant relationship between Data Mining Tools of High-Reliability Organizations in Port Harcourt and their Sense-making Effort in HR analytics.

H03: There is no significant relationship between the Supportive Work Culture in High Reliability Organizations in Port Harcourt and their Sense-making Effort in HR analytics.

2.3 Conceptual Framework

To further guide the aim of this study, a conceptual framework depicting the key variables for the study which are: Decision-Making Affordances (Hi-Tech Capability, Data Mining Tools and Supportive Work Culture) and Sense-making Effort in HR Analytics. This framework, in a nutshell, is all that the study thematically covers.

Fig. 1: Conceptual Framework depicting the relationship between Decision-Making Affordances and sense-making in HR Analytics.



Source: Researcher (2021)

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3.0 THEORETICAL FOUNDATION

Understanding the relatedness of the key variables of this paper will be informed by in-depth knowledge of the Affordance Theory. Therefore, the study is based on the Affordance theory as would be explained subsequently.

3.1 The Affordance Theory

The affordance theory was proposed by Gibson in 1977 in an attempt to understand the behavior of humans in their environment. It originated from ecological psychology (Leonardi, 2013). As the name implies, the theory was coined from the verb 'to afford', which means 'to offer. The term affordances refers to the possibilities provided by an object to an animal within an environment (Gibson, 1986). According to Leonardi (2011), affordances just like constraints, are found between humans and material agencies. In the context of an organization as an entity, it implies that as the organization attempts to align its goals with the measurability of technology (material agency), it would most likely be able to understand the possibilities the technology offers it.

In addition to this, Volkoff & Strong (2013) opine that, though affordances may mean the possibilities offered by an object, the value of the theory to individuals and organizations is that, it aids in analyzing how and why things happen, therefore, going beyond understanding what happened (Wang, Wang, and Tang, 2018). Similarly, in the information technology (IT) field, the affordance theory attempts to explain the synergy between information technology and an organization (Wang et al., 2018; Zammuto, Griffith, Majchrzak, Dougherty, & Faraj, 2007). Similarly, Zammuto et al. (2007), argue that affordances from the perspective of the organization do not only depend on the functionalities and characteristics of the technological artifact but also on the experiences, processes, routines, and other social aspects of the organization. Therefore, the affordance theory is adopted in this paper to analyze the constraints found in the interface between the decision-making systems in the organizations as the "object" and the decision makers in the organizations as the "animal".

Explicitly, it means that considering conditions or social settings in which technology is enabled is an important part of understanding the process of decision-making in a data-driven environment and its subsequent outcome. Therefore, the use of affordance theory to assess the relatedness of the variables of this paper facilitates an assessment of the possible constraints in the relationship between both technical and social characteristics in an organizational setting, and the decision maker in relation to the process of sense-making in human resource analytics.

3.2 Decision Making Affordances

In Gibson's (1979) argument on the concept of affordances, the environment is not described in physical terms but rather in terms applicable to the performer's action capabilities just like a hammer affords to nail and a brain affords thinking. Having a clear understanding of the concept of affordance stimulates opportunities for determining the possibilities of actions and indecisions (Turvey, 1992). This, therefore, offers the organization or decision maker an appropriate structure for understanding decision-making possibilities and behavior, and subsequently uncovers diverse possible actions in a constantly changing environment.

Defining decision-making affordances has not gained much attention in the literature and as such would require a relation to a similar concept. Perhaps, the closest to describing decision-making affordances is in the assertion of Marti, Morice, and Montagne (2015) that, it is likely possible to understand the decision-making process in terms of making choice between two or more co-existing possibilities. Subsequently, the definition of decision-making affordances for this paper is generally adopted from the definition of functional affordances, which according to Markus & Silver (2008), are the outcomes of the interaction between a technical entity and a goal-oriented actor, and according to them, this technical entity or artifacts can either be tangible or abstract things such as the outcomes of any information systems. Relating this definition to decision-making simply means that decision-making affordances are the outcomes of the interaction between a technical object and a decision maker in the course of decision-making. Similarly, Markus & Silver (2008) further emphasized that the technical objects offer the possibilities for data-driven decision-making. In addition, Strong et al. (2014) suggest that decision-making affordances involve series of actions including identifying problems and opportunities, defining strategic objectives and criteria for success, developing and evaluating alternatives, and prioritizing and selecting one or more alternatives.

The scope of decision-making affordances examined in this paper is on the possible hindrances and catalysts to the interaction between the technical objects and the decision maker. This is in line with Hutchby's (2001) clarification that affordances are both possibilities and constraints that a technology foists on the decision maker as regards how they can be interpreted or perceived. The implication, in this case, is that, these constraints and catalytic agents lead to differences in the outcomes of using technologies or technical objects for decision making, as well as different possibilities for the same object (Leonardi, 2011). The nature of this variability in relation to the sense-making process in Human Resource Analytics is the key focus of this present paper. In other words, the paper examines those technical objects whether tangible or abstract, that may likely alter decision-making capability, and consequently mitigate its efficiency. Subsequently, we examined the high-tech capability of the organization, the availability of data mining tools in the organization, and the existence of supportive work culture as likely constraints or catalytic agents to sense-making in HR analytics in high-reliability organizations scenarios.

3.3 Hi-Tech Capability

The technological capability has started gaining research attention in recent times, particularly as regards its impact on organizational change and mindfulness (Ekiyor and Nwaeke, 2020). For instance, Cirjevskis (2019) examined the role of dynamic technical capabilities of organizations in their business model innovation. The outcome of that study established that highly technologically innovative companies like the HROs such as the telecommunication companies, construction firms, medical, IT companies like Linkedln, Samsung, and Microsoft, and foods & beverages constantly pay attention to their dynamic capabilities in order to maintain high flying performance results. More specifically, developing high-tech capabilities has become a necessity in the process of social and economic development. This is so because, the core technological capabilities of high-tech companies have helped in boosting their market competitiveness (Feng, Sun, Chen, and Gao, 2020). According to these authors, organizations with Hi-tech capabilities often rely on the power of innovations to boost their processes and performance.

Specifically, Hi-tech capabilities are the series of complementary expertise and knowledge that organizations could use to enhance their work processes, such that they are able to gain a formidable competitive advantage (Boadu, Xie, Du, and Dwomo-Fokuo, 2018). Furthermore, Feng, Sun, Chen, and Gao (2020) constructively identified the Hi-tech capabilities of organizations to be the uniqueness, firmness, and criticality of the technology they utilize. In order words, it means focusing on doing things systematically in a different way that gives them an edge over their competitors. In a similar study, Sutopo, Astuti, and Suryandari, (2019) argued that it is only the organizations with hi-tech capabilities that can proactively leverage on the possibilities of advanced technology, and opportunities, and realign their workforce management system while continuously engaging in innovation research. Another critical reason why understanding hi-tech capability is key for this study is the point that it can deepen our understanding of the relationship between decision-making and sense-making, which is enabled by technology in a dynamic world of work, and by so doing enrich and also improve on existing management theories of high-tech companies such as the HROs.

3.4 Data Mining Tools

There is no doubt that technological advancement has brought with it lots of complications to the world of work, leaving organizations with a voluminous amount of data to deal with. Working with the volume of data in the modern work place, in itself, has become a challenge to many organizations as they strive to keep their heads above water in the highly competitive business arena, today. Part of the challenge according to Tan, Steinbach, and Kumar (2004), is the concern that the traditional techniques used in managing data have become somewhat inappropriate due to the size, variability, speed, heterogeneity, and dispersal nature of the data that these organizations deal with in the course of doing business. These authors emphasized that the danger in dealing with data of such nature is in the fact that most of such end up not being analyzed at all or inappropriately analyzed. They further suggested that there is a critical need for proper data mining to be an integral part of doing business for modern-day businesses. More so, data mining in business processes equally requires an understanding of the data mining process.

Subsequently, Beerry and Linoff (2000) define data mining as a process of analyzing and probing an array of data in order to detect patterns, and trends and of course, give more informed meaning to data through an automatic or semi-automatic method. In addition, Gheware, Kejkar, and Tondare (2014) argue that the data mining process involves data summarization, clustering, classification, regression, and association analysis. With the knowledge of what data mining is all about, there is no gain in saying that every organization desiring to have an edge in the technology-based business processes today, would need to have in place effective data mining techniques. This is in accordance with the recommendation of Gheware, Kejkar, and Tondare (2014) that organizations need to implement data mining methods that will offer them the possibility of effectively retrieving meaningful information from the data they deal with on daily basis.

These techniques provide a variety of applications for industries like retail, telecommunication, Bio-medical, etc. These tools predict future trends and behaviors, allowing businesses to make proactive and present knowledge in a form easily understood by humans (Gheware et al., 2014). They further emphasized that data mining adopts its

technique from many research areas, including statistics, machine learning, database systems, rough sets, visualization, and neural networks.

3.5 Supportive Work Culture

Examining the impact of supportive work culture cannot be over-emphasized in understanding organizational performance. This is due to its critical role in boosting both employees' and organizational performances (Asiedu, 2015; Beth, 2020; Schneider and Reicher, 1983). According to the assertion of Schneider and Reicher (1983), organizational or work culture is seen as the values and assumption held in an organization that guides the way it runs its business. Consequently, supportive work culture is one in which the organization does not just look out for the employee's job performance but also pays attention to and values their emotional, physical, and mental well-being. This implies that these values and norms shared by people and groups in an organization make them who they are and how they see things.

In addition, supportive work culture is viewed by several scholars as a set of clear values, beliefs, assumptions, and practices within an organization that promotes healthy work relationships and environments (Beth, 2020; Perrow, 1978). These authors further conceptualized the elements of supportive work culture to include reward and compensation, recognition, opportunities for growth, communication, and supervisory or managerial support. Beth (2020) specifically argued that a supportive work environment can be measured by the organization's level of sensitivity (to sensitive matters), teamwork approach, feedback on work performance, mentoring, and other high-performance work practices. This author emphasized that creating and maintaining a supportive work culture means giving employees a high level of job autonomy in which they have the freedom and flexibility over some of their job tasks and responsibility. For managers particularly, a supportive work culture offers the opportunity to make decisions that help employees grow both personally and professionally while stimulating loyalty and a healthy working relationship (Beth,2020). This scholar suggested that a supportive work culture breeds a supportive work environment that promotes an atmosphere that brings out the best in employees and the organization. Invariably, Beth (2020) is asserting that there is a direct relationship between a supportive work culture and the possibility of a worker making decisions in the workplace. The argument of Beth (2020) is more relevant to this study because it succinctly captures the perspective from which decision-making affordance is viewed in this case, which is that, supportive work culture is a catalyst to productive decision-making.

3.6 Sense-making in HR Analytics

The sense-making concept was developed by Karl Weick in 1995 to explain how cues can be detected from an array of data or circumstances which remotely contain cues in order to transform the same to a situation explicitly comprehensible in actionable words. Its major assumption is that systematically introducing a stimulus into an unclear circumstance can transform the such circumstance into an explicitly understandable situation that can also serve as a catalyst for further or other actions. In relation to sense-making, studies have shown that the core of managerial tasks is decision-making (Wazis, Imam, and Kashim, 2016) which is rooted in uncertainty. Hence, it suffices to say that, the major challenge for managers most times, is how to make sense of their work processes and circumstances and subsequently

make effective decisions. This, therefore, makes sense-making enactment a necessary tool for managers. Likewise, the ability of managers to make effective decisions under uncertain work circumstances would practically call for a constant effort to make sense of their work environment by engaging in a reliably constructed and coordinated system of action (Taylor and Van Every, 2000). This, however, does not mean that sense-making comes from decision making or that decision-making comes from sensemaking but rather, they both act as complementary mutable.

The concern for this paper, however, is understanding the hindrances and catalysts to decision-making in high-reliability organizations while they engage in sensemaking in human resource analytics. This calls for an understanding of not just the concept but most particularly, the process of sensemaking. Karl Weick, the "father of sensemaking," suggests that the term means simply "the making of sense" (Weick, 1995, p. 4). It is the process of "structuring the unknown" (Waterman, 1990, p. 41) by "placing stimuli into some kind of framework" that enables us "to comprehend, understand, explain, attribute, extrapolate, and predict" (Starbuck & Milliken, 1988, p. 51). Sensemaking is the activity that enables us to turn the ongoing complexity of the world into a "situation that is comprehended explicitly in words and that serves as a springboard into action" (Weick, Sutcliffe, & Obstfeld, 2005, p. 409). In order to show how much, one understands the unknown, which is sometimes difficult to explain, there is the need for articulation or presentation. This in its totality is what sensemaking is all about. Thus, sensemaking entails and most times require an expression or presentation of the unknown.

According to Weick (1995), sensemaking happens in a sequential manner comprising of: (1) the identification phase, (2) the extraction phase, (3) the selection phase, (4) the interpretation phase, and (5) the retention phase. Accordingly, the process starts at the point the actor (sense maker) identifies cues about a circumstance (environment), then extracts these cues and converts them to words or categories. The cue extraction part of the sensemaking process is also called the enactment phase and is characterized by detecting and relating events. This phase is, however, influenced by the mental models of the actor acquired from previous experience. After the extraction phase comes to the selection phase in which the various categories of data backed by reviewed actions, are listed out and narrowed down to a single plausible explanation. Finally, plausible sense (image or framework) is made retrospectively and enactment of what is needed to bring order to the ongoing circumstance occurs. This phase is called the retention phase and it is characterized by connecting past experience and salient organizational identities. Therefore, sensemaking is explained as a process focused on the interplay between action and interpretation of context in which action is taken instead of the traditional method in which the sole focus is on the action of an individual decision-maker, otherwise known as the 'rule of the thumb'.

To further understand the direction of this study requires an explanation of the concept of HR analytics as it relates to sensemaking. According to Ejo and Okwakpam (2019), HR analytics is the statistical process of collecting, analyzing, and understanding human resource (HR) data in order to improve the workforce performance of an organization. In line with the argument of Grillo (2015), this definition of HR analytics simply indicates that HR analytics entails turning HR data into information through the use of advanced forecasting techniques to model future results or occurrences. If this is what HR analytics is all about, it will therefore be theoretically correct to assert that sensemaking is embedded in the HR analytics

process, given that the former entails the articulation or expression of a given data to represent information. This means that the process of sensemaking and HR analytics are interlocked in one process which involves gathering data, presenting the data, grouping the data, analyzing the data, and interpreting the analyzed data to make sense or give insights for further actions.

Therefore, a better understanding of the process of generating insights (or making sense) is important for understanding and identifying the action potential of HR analytics and its enabling sensemaking mechanisms. In addition, it can shed light on the potential of HR analytics and how to leverage the potential of HR analytics in practices to improve HRM practices and policies (Sharma and Sharma, 2017).

4.0 METHODOLOGY

This is a correlational study that adopted a quantitative method of analysis to gain inquiry into the relationship that exists between decision-making affordances and sensemaking in HR analytics. While understanding that it is the individual employee's sensemaking efforts that contribute to organizational sensemaking efforts, the study takes the sensemaking in HR analytics inquiry to an organizational level in which the focus is on the sensemaking capabilities of the high-reliability organizations in Port Harcourt. To test the hypotheses empirically, data was collected from a total of 10 popular fast food restaurants in Port Harcourt which were taken as the target population of the study. These restaurants were selected to represent the high-reliability organizations because of the complexities and sensitivity of the nature of their business in which errors can be highly damaging to both clients and the business. The 10 Fast Food Restaurants comprise Chicken Republic, Genesis Fast Food, Happy Bite, Kilimanjaro Restaurant, The Promise, Relish Kitchen, Skippers Fast Food, Tantalizer Restaurant, Sweet Tooth Confectioneries, and Dacota Restaurant. These restaurants were specifically chosen because they have been in the business for more than a decade amidst the peculiar challenges and risks of the business. Due to the small size of the population, a census was adopted in which the entire population of the 10 Fast Food Restaurants was chosen as the study sample. A Quality Assurance/Control Manager and Sales Manager were chosen to represent each restaurant, therefore, bringing the total number of participants to 20 Managers.

A questionnaire survey using a five-point Likert scale was used to provide responses to the model dimensions and measurements of all variables. The survey instruments were developed thematically based on the dimensions and constructs of decision-making affordances (Hi-Tech Capability, Data Mining Tools, and Supportive Work Culture) and sensemaking in HR Analytics. The constructs relating to the definitions of the variables were validated by human resource experts, quantitative analytics experts, scholars, and of course, Fast Food Restaurant Managers. After these revisions, a pilot survey was carried out on 5 participants to ensure that the respondents understood the questions and there were no problems with the wording or measurements of use for the instrument. Subsequently, the pilot survey showed that the instrument was reliable at 0.79 Cronbach Alpha. The gathered data were analyzed with the aid of the SPSS 23.0 version and presented in tables.

Two levels of analyses comprising the univariate and the bivariate were carried out on the data gathered. The univariate analysis specifically measured the descriptive statistics or level

of manifestations of the variables in the restaurants through the mean and standard deviation scores while the bivariate analysis, based on the Pearson Correlation Coefficient, measured the nature and direction of relationships that exist between the components of decision making affordances and sensemaking in HR analytics in the restaurants. There was a 100 % retrieval rate as the 20 copies of a questionnaire that were self-administered were all completely filled, retrieved, and used

4.1 Descriptive Statistics Results

The first level of analysis carried out gave the descriptive statistics on the study variables as shown in Table 2.

Table 2: Descriptive Statistics of Variables

	Mean	Std. Deviation	N
Hi-Tech Capability	2.00	.302	20
Data Mining Tools	2.81	.200	20
Supportive Work Culture	2.95	.330	20
Sensemaking in HR Analytics	1.59	.421	20

Source: SPSS 23.0 Output (2021)

Table 2 shows the result of the descriptive statistics for the study variables. Accordingly, the result shows Hi-Tech Capability (m=2.00, SD= .302), Data Mining Tools (m=2.81), Supportive Work Culture (m-2.95), and Sensemaking in HR analytics (m-1.59, SD=.421). With a mean score of 3.00, 2.81, and 2.95, Hi-Tech Capability, Data Mining Tools, and Supportive Work Culture are said to have manifested moderately in major restaurants in Port Harcourt. This means that these restaurants moderately engage in the use of high technology and data mining tools to proactively manage employees while having average supportive policies and practices for the use of these technologies and data mining tools. With the score (m=1.95, SD= .421), the process of sensemaking in HR analytics for these restaurants seems to be below average. The standard deviation ranging from .200 to .421 which is less than 1 shows an acceptable variability in the responses of the respondents.

4.2 Empirical Result and Discussion

The Pearson Correlation Coefficient was used to test the study hypotheses and give concrete meaning to the conceptual framework. Figure 2 shows the result of the correlation test carried out on the variables of the study. Subsequently, with a correlation (r) value of 0.622, Hi-Tech Capability is strongly and positively related to Sensemaking in HR Analytics and with a significance (p-value) of 0.000 which is < 0.05, the relationship is said to be significant. Secondly, with a correlation (r) value of 0.708, Data Mining Tool has a very strong and positive relationship with Sensemaking in HR Analytics and with a significance (p-value) of 0.000, the relationship is said to be significant. Thirdly, with a correlation (r) value of 0.422, Supportive Work Culture has a moderate positive relationship with Sensemaking in HR Analytics and with a significance (p-value) of 0.003 which is < 0.05, the relationship is said to be significant. These relationships imply that as the highly reliable organizations, in this case, the major fast food restaurants in Port Harcourt continually engage in the use of high-tech solutions, and data mining tools and maintain supportive work culture in their human resource management processes, they will continue to effectively make sense of their human

resource dynamics while they gain insights that will improve their HR decisions, and ultimately improve their people side of the business.

These findings are somehow in tandem with some other studies, even though they did not use the exact same dimensions of decision-making affordances (Barton and Court, 2012; Cao, 2015; Marchand and Peppard 2013).

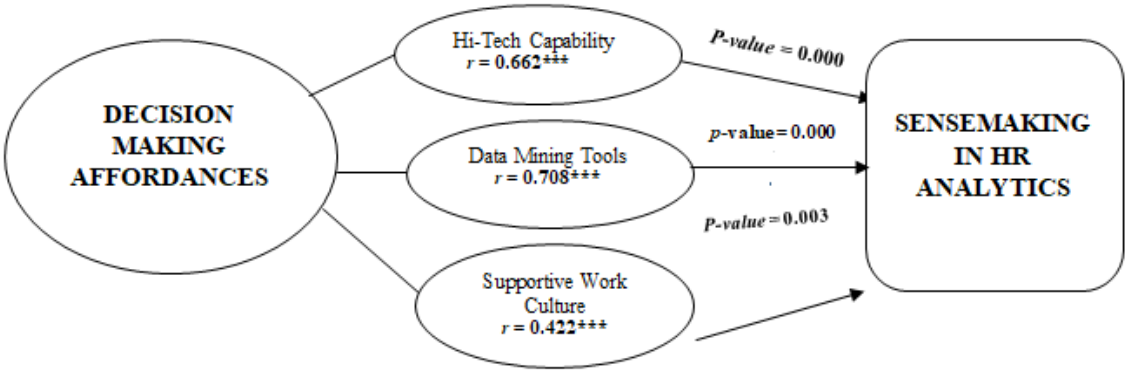

Figure 2: Empirical Result (2021)

*** Significant at $p < 0.05$

5.0 CONCLUSION

In this paper, we have discussed in detail the various dimensions of decision-making affordances adopted by highly reliable organizations and how they have an impact on their sensemaking and HR analytics outcomes. The paper has established that high-tech capability and data mining tools both have a strong positive relationship with sensemaking effort in HR analytics while supportive work culture has a moderate positive relationship with sensemaking analytics. To encapsulate the insights drawn from this work in relation to the global ongoing debate on the potential of sensemaking in analytics and its alignments with business performance (Akter et al., 2016; Ghasemaghaei, Hassanein, and Turel 2017; Wamba et al., 2017), the study contributes to the understanding that there are potentials in having a supportive work culture, hi-tech inclinations as well as engaging in the use of data mining tools in the process of sensemaking in HR analytics. The discovery extends to establishing that these constructs represent affordances or possibilities for the decision maker as regards the mechanism of sensemaking which involves the integration of the object (affordances) and actor (the decision maker).

In summary, having established the high manifestation of the dimensions of decision making as used in this study, it concludes that highly reliable organizations actualize their sensemaking process and HR analytics objectives by capitalizing on the affordances offered by supportive work culture, hi-tech capability, and data mining tools. Most importantly, the study is able to establish that these organizations have overcome the series of uncertainties encountered in managing their employees over the years due to the sensemaking ability that has made them make data-driven HR decisions that emanate from the application of HR analytics. One major implication of the findings of this study to HR practitioners and experts is that, understanding the prevailing effect of decision-making affordances on the

sensemaking process is critical to the effective application of HR analytics. For instance, one of its findings recommends that the potential offered by a supportive work culture or hi-tech capability in making sense of HR processes, helps organizations to make data-driven and effective decisions. In other words, without the potentials offered by decision-making affordances, the possibilities that HR analytics affords to organizations for decision-making becomes practically tactless.

6.0 RECOMMENDATIONS

Going by the findings of this study, it recommends that:

1. Organizations need to continue to leverage the potential of hi-technological tools to continue to improve their resilience and alertness to process changes for effective human resource management.
2. The use of data mining tools should be considered in organizations as a critical facilitator of an effective HR process and policy development since it has been proven to contribute to the sense-making capability of the highly reliable organizations.
3. Organizations should ensure to maintain a supportive and data-driven work culture such that they are able to glean from the associated potentials it offers in sense-making while leveraging on the benefits of HR analytics.

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