

Managers As Autonomous Action Researchers: A Practice-Centric Framework

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ABSTRACT

Although action research (AR) has been extensively acknowledged in the literature as an exclusive work-based learning project majorly carried out through higher education, no studies -to our best knowledge- proposed AR to be applied as a typical role at the professional management practice level. Therefore, this study sheds light on that existing gap using the literature to support the argument that managers need to practice AR as a key managerial role for learning and change without being necessarily affiliated to an academic program. By reviewing evidence related to AR attributes, approach, application in different managerial roles and its early practice, the study offers a pragmatic and practice-centric framework of AR to support managers in undertaking the role of action researchers autonomously and within the scope of their work. Explicitly, this framework is composed of six building blocks; namely, AR cyclic process, data collection and analysis, experimentation activities, applied knowledge, evidence-based change/improvement and development of executive scholars. These blocks are significantly influenced by three dynamic forces: researching managerial behavior, participation and workgroup and research-driven management culture. The proposed framework implies designing effective organizational policies aimed at integrating AR into management practices and managerial human resource development strategies.

Keywords: Action research, Applied research, Managerial roles, Executive scholars, Managers.

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البحث الإجرائي كدور للمديرين: إطار عام مرتكز على واقع الممارسة المهنية

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ملخص

على الرغم من أن البحث الإجرائي (Action Research) قد تمت الإشارة إليه على نطاق واسع في الأدبيات كمشروع حصري للتعلم القائم على التطبيق ويتم تنفيذه بشكل أساسي من خلال التعليم العالي، فإنه - وفقاً لأفضل ما توصلنا إليه من معرفة- لم تقترح أي دراسات سابقة أن يتم تطبيق البحث الإجرائي كدور أصيل على مستوى الممارسات الإدارية. لذلك، تلقي هذه الدراسة الضوء على تلك الفجوة الراهنة بمراجعة الأدبيات لدعم الدليل بأهمية ممارسة المديرين البحث الإجرائي كدور إداري جوهري للتعلم والتغيير دون أن يكون ذلك بالضرورة ضمن ارتباطهم في برنامج أكاديمي. من خلال مراجعة الأدلة المتعلقة بخصائص البحث الإجرائي من حيثية النهج والتطبيق في الأدوار الإدارية المختلفة، وباكورة ممارسته، تقدم الدراسة إطاراً عملياً للبحث الإجرائي يتمحور حول الواقع المهني، وذلك لدعم المديرين في الاضطلاع بدور الباحث الإجرائي بشكل ذاتي وضمن نطاق عملهم. يتضمن هذا الإطار ستة محاور، وهي العملية الدورية للبحث الإجرائي، وجمع البيانات وتحليلها، وأنشطة التجارب، والمعرفة التطبيقية، والتغيير أو التحسين المستند على الأدلة، وإيجاد باحثين تنفيذيين. تتأثر هذه المحاور جذرياً بثلاثة مؤثرات هي: السلوك الإداري في البحث، والمشاركة ومجموعات العمل، وثقافة الإدارة القائمة على البحث. وينطوي هذا الإطار المقترح على ضرورة تصميم سياسات تنظيمية فاعلة تهدف إلى دمج البحث الإجرائي في الممارسات الإدارية واستراتيجيات تنمية الموارد البشرية الإدارية.

الكلمات الدالة: البحث الإجرائي، البحث التطبيقي، أدوار إدارية، باحث تنفيذي، مدير.

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1. INTRODUCTION

In the 21st century, the world of business has grown into a complex and dynamic process due to increasing globalization, the digital revolution and economic transformations (Lipsey, Carlaw & Bekar, 2012). Hence, different managerial practices are urged to be continuously improved to meet the emerging business challenges (Drucker, 2007). Research endeavors have been significantly developed across the business academia spectrum to cope with that business revolution and become ever more likely to potentiate business transformation. However, the extent of value and impact that different research approaches can have on the real world of business remains an area of literature debate (Carroll, 2016; Park, 2005). One of these approaches is action research (AR), which is believed to outperform traditional research paradigms in terms of relevance to business practice (Bareham, Bournier & Stevens, 2000; Mero, 2009). AR has gradually received an increasing amount of attention over the past few decades from many Western universities that have acknowledged it as a critical interface between the business and academic worlds.

AR has been argued as practice-centric research by many scholars in the management discipline (Coughlan & Coughlan, 2002; Greenwood & Levin, 2007; McNiff & Whitehead, 2002). It has also been underlined with the necessity of developing scholarly practitioners (Dent, 2002) who can apply AR methods to solve real-world challenges (Afify, 2008; Burns, 2007). Despite that growing emphasis, AR, to a large extent, is still neither assumed nor pursued as a key managerial role and it has remained as a freely floating choice of practice, particularly in the management discipline. Within this context, the main question that this study attempts to answer is: To what extent do managers need to practice AR as a managerial role grounded in the reality of their businesses and beyond the frontiers of

academia; and most importantly, how?

2. RATIONALE OF THE STUDY

Management research is a crucial catalyst for managers' quality decision-making and successful organizational performance or change (Stouten, Rousseau & De Cremer, 2018; Abubakar et al., 2019). However, embracing a skill set of researching practice as a critical competence for managers has not been argued sufficiently in extant literature. Hence, AR, a form of applied research with a great extent of relevance to rationally scrutinize and address a particular situation of managerial problems could potentially be proposed as an essential management competency to be professionally developed, mastered and applied in practice. Drawing on previous AR studies in management, such proposal has coherent grounds aimed to foster managers' holistic understanding, methodical thoughtfulness and innovative thinking when encountering complex managerial issues or pursuing a practice transformation (Marshall, Coleman & Reason, 2017; Lim et al., 2018; Canterino, Cirella & Shani, 2018; Salehi & Yaghtin, 2015). This example of current evidence implies the significance of engaging managers in AR. Therefore, through a blend of actionable and scientific underpinnings, the current study focuses on structuring a generic framework applicable for guiding executives towards pursuing field research.

3. DESCRIPTION OF AR THEORY

3.1 The History of AR Reinforces Its Position in Practice

The history of AR practice goes back as far as

1945. At that time, John Collier, attributed as one of the early initiators of AR practice, had conducted his research in relation to the American Indians and the community's needs (Collier, 1945). Another renowned scholar, acknowledged as the founder of AR by many AR authors (Eden & Huxham, 1996; Efron & Ravid, 2013), is Lewin (1946), who described the concept of AR in the context of social sciences as "a comparative research on the conditions and effects of various forms of social action and research leading to social action" (Lewin, 1946: 35), by means of "a spiral of steps, each of which is composed of a circle of planning, action and fact-finding about the result of the action" (Lewin, 1946:38). Since Lewin's research work provided the background on AR, literature concerning AR in social sciences has been rapidly growing with increasing popularity (Karlsen, 1991). In the field of education, AR was inaugurated by Stephen Corey; his emphasis is that practitioners should be involved in developing educational practices instead of relying only on the top-bottom approach (Corey, 1953). Nowadays, AR, with its various advantages over the traditional research approach, stands as an effective strategy for empowering educators/practitioners as real partners in improvement education (Efron & Ravid, 2013). Beyond the area of education or sociology, AR has become more apparent in business literature, particularly over the past decade, indicating its impact on the research community, public administration and enterprise management (Coughlan & Shani, 2016; French, 2009; Quinn, 2014). In short, the conclusion which can be reached out through that history review is that early AR activities in the social and educational fields had a significant influence in reshaping the management practices. One of the primary reasons is that action researchers cannot only introduce innovative solutions, but also be involved in the application and participation in the change process.

3.2 The Concept of AR Outperforms Traditional Research Concept

Generally, there is a lack of consensus, to some extent, in defining the concept of AR among scholars since its origin by Lewin (1946). However, through an examination of the literature, AR can be conceptualized based on three elements: process, method and impact. A process-centric definition, given by Perry and Sankaran (2002: 13), explicitly stated that "*action research necessarily focuses on a workgroup within an organization or community, all of whom are involved in the cycles of planning/acting/observing/reflecting.*" Coughlan and Coughlan (2002) described the concept of AR by asserting the viability of data-gathering methods used in traditional research, whether qualitative or quantitative, while the distinction between traditional research and AR is revealed clearly as: "*what is important in AR is that the planning and use of those tools are well thought out with the members of the organization and integrated into the AR process*" (Coughlan and Coughlan, 2002: 225). Hence, the process of AR needs to be characterized by participatory and collective efforts manifested by both the researcher and organization members at the level of making action and during the implementation of the inquiry or experimentation activities. Unquestionably, one of the critical influences of AR is to produce benefits to the organization or community within the scope of research and add value to the body of knowledge in general (Coughlan & Brannick, 2014; Eden & Huxham, 1996; Karlsen, 1991). Thus, AR can be distinguished from traditional research or positivist science by focusing on knowledge in action and not only as of the creation of theory. In that context, AR can be considered as a practical tool to enhance management practices

through performance-oriented assessment or evidence-based organizational change.

3.3 AR Bridges the Gap between Professional Practice and Education

In this study, two AR approaches were selected to be overviewed, as they imply how practical educational programs can be developed using AR to bridge the gap between professional practice and education. These two approaches are the combined AR/AL (Perry & Zuber-Skerritt, 1992) and the figure of eight (Perry & Sankaran, 2002). The former approach is based on the concept of combining action learning (AL) and AR which will strike a balance between satisfying the needs of the organization under AR and at the same time fulfilling the academic requirements of the University to which the researcher is affiliated. This approach includes three interrelated domains particularly, 'core AL projects' domain, including a reflective spiral of AR and aimed at resolving management-related issues or improving organizational performance and 'thesis AR' domain, which deals basically with AR design and a theory generation; 'thesis writing' which deals with AR documentation to meet academic requirements. On the other hand, the "the figure of eight" approach is derived from the combined AR/AL approach and it works in a two-cycle manner through a core AR project and a thesis project. This approach aims to help managers pursue a professional research program to focus on solving a problem at their workplace while writing a research thesis. It has the advantage of eliminating the complexity of conducting several core AR projects demonstrated by the combined AR/AL approach, thus simplifying the research work for busy executives. In general, the two approaches demonstrate how a manager can pursue an academic researcher's role to study a contemporary phenomenon in a real situation through a graduate management research program. In this context, it

becomes clear that previous researchers' approach has been constrained, because it has relied on education-centric AR frameworks to bridge the gap between professional practice and education. In this study, we debate the long-term effectiveness of such an approach simply because of its mechanism of embedding AR into a closed-ended project that finishes with achieving program graduation. Hence, we emphasize the necessity of establishing a practice-centric framework of AR which complements the education-centric frameworks and must be aimed at fostering a sustainable and evolving AR practice as part of management roles and not merely as an academic requirement.

3.4 The Attributes of AR Engage Autonomous Action Researchers

Due to the diversity of AR in terms of variation in its objectives, conceptual typology and researchers' role, it has been given special attention in the literature to distinguish it from traditional research and at the same time to validate its position in both practice and academic settings (Cassell & Johnson, 2006; Eden & Huxham, 1996). However, this study analyzes AR's essential characteristics to clarify its relevance to the practice of management and preeminence over conventional models of obtaining knowledge.

The characteristics of AR can be viewed through the following domains: approach, nature, outcomes and process. The first domain has been introduced previously in this study. The rest of the study develops an insight into the three remaining domains. According to Efron and Ravid (2013), AR's nature, which makes it different from other traditional educational research, depends on five characteristics: constructivist, situational, practical, systematic and

cyclical. It is constructivist as action researchers generate and apply (make informed decisions) on their own responsibility, rather than assuming knowledge by external experts. It is situational as the area of practice and its participants are relevant to the researcher with respect to both research and action. It is practical as the investigated issue forms an area of interest for the researcher to be resolved or improved. It is systematic as the research process is built on the application of scientific methods and can lead to managerial decision making based on technical knowledge. And finally, it is cyclical as the research conduct involves spiral steps central to the process as a dynamic project. Reasonably, these attributes are fundamental for considering a research project as AR. Further, Espinoza (2008) identified five elements characterizing AR: continuous questioning, problem-solving, intervention, iterative nature and adaptability (capability to change direction). Apparently, the success of any AR project would critically depend on these five characteristics, as they can back up the foreseen organizational change through evidence-based reasoning, a pluralistic orientation to inquiry tools and subsequent actions.

With respect to the characteristics of AR in terms of outcome and process, Eden and Huxham (1996) introduced and discussed twelve features under five themes as follows: generality and theory generation, type of theory development, the pragmatic focus of AR, designing AR and validity of AR. These AR features form a golden set of AR standards that can lead to worthy practical and theoretical implications if well assessed and implemented. However, it is difficult to achieve them all at once, as AR is not a matter of capturing information once, let alone acting once. The overall attributes of AR may reveal a situation of complexity; thus, a question may arise here: 'Would it be too much to expect managers to perform the role of action researchers?' Fairly, the answer to that question depends on

the AR practice-centric framework, which would form a part of the outcome of this study.

4. EVIDENCE RATIONALIZING AR PRACTICE IN MANAGEMENT

Henry Mintzberg, a prominent management theorist, identified and grouped managerial roles into three categories: decisional, interpersonal and informational (Mintzberg, 1975). These roles can be generally applied to the different hierarchical levels of management. The author also specified four significant roles for the decisional category: entrepreneur role, disturbance handler, resource allocator and negotiator. Even though AR has a long and distinguished history in literature, it seems that Mintzberg had not sufficiently acknowledged the significance of AR in management neither by merging it into his identified cluster roles nor by making it a standing-alone role. In other words, Mintzberg did not reflect the past experiences of AR practice into his management notions. As an early example of AR practice, one of these experiences had begun in the 1890s by the pioneering work and principles introduced by Frederick W. Taylor, known as the father of scientific management. This is before the term "action research" was coined by Kurt Lewin in 1946 and even before John Collier's AR practice. It is worth noting that Taylor's experience was encountered by criticism by Mintzberg from a social aspect (Mintzberg, 1989) and by leaving behind that experience uncredited from an AR side. Thus, before describing Taylor's experience as a case study in this paper, AR's importance in improving and promoting the different managerial roles of Mintzberg's cluster would be indicated by citing selective evidence relevant to each role.

4.1 Decisional Managerial Role

The use of research to establish an evidence-based decision-making process as well as to inform practice, policy and strategy is a widely accepted practice in management (Clyde, 2006; Tranfield, Denyer & Smart, 2003). This can be applied either through the use of traditional academic research or AR. However, AR, through its emphasis on quality of practice-based evidence, calls managers to become active users of research, particularly to embed themselves rigorously in the dynamics of the research process and undertake actions as means for change and enhancement. Thus, the use of that research paradigm for informing and refining decision-making role, to a great extent, is a pragmatic approach. For instance, in operation management (OM), Coughlan and Coughlan (2002), who conducted an in-depth-review to explore the legitimacy and value of AR in OM practices, had concluded that AR is relevant and valid in the field of OM through its advantage in addressing the operational realities experienced by practicing managers while concurrently contributing to knowledge. In organizational change and project management, Sankaran and Ranjan (2010), who used AR for their doctoral studies, found that AR is an effective and responsive methodology to implement organizational change in organizations. Their conclusion has been asserted with the inference that project managers need to be action researchers to enhance their decision making and deliver benefits to stakeholders. Further, in the discipline of organization innovation, Salehi and Yaghtin (2015) built an AR Innovation Cycle (ARIC) model based on Tangkar and Arditi's (2000) labyrinth of innovation. This has been projected as a means for achieving an innovative organization. Previous experiences provide a valid strategic direction that could resourcefully guide today's managers to tap into the most topical management issues through the application of AR and provide subsequent value to learning, improvement and

relevant evidence generation.

4.2 Interpersonal Managerial Role

According to Mintzberg, interpersonal roles make managers responsible for the direction and supervision of employees. These roles are fundamental to performance and human resource management and have received a lot of scholarly attention, frequently aimed at solving problems associated with traditional systems of performance on one side and reducing the related science-practice gap on the other side (Levy, Tseng, Rosen & Lueke, 2017). AR could be considered as a new strategy in the discipline of human resource management (HRM). In the recent past, some researchers have applied AR in such a discipline; e.g. Githens (2015) found that AR offers a mechanism through which critical human resource development research becomes grounded in the realities of real-world practice, thus excelling in improving organizational performance. Additionally, Cooke (2016), who adopted AR as a doctorate research paradigm in the field of personnel and development, found that AR is an effective tool to translate the results of training research into practice and to develop the professional practice of leadership and training with genuinely new insights relevant to the practical milieu itself. This development in AR application undoubtedly implies that there are significant learning and application potential to further improve interpersonal competencies in light of evidence-based AR approaches.

4.3 Informational Managerial Role

Mintzberg's informational activities are that of data collection, monitoring, transmission and marketing, both at the internal and the external

frontiers of an organization. Nowadays, managers' understanding and involvement in different informational activities through contemporary technologies and practices have become a necessity for sustainable development on the one hand (Mohamed, Murray & Mohamed, 2010) and organizational competitiveness on the other (Majors, 2010). Therefore, the role of research in improving the practices of managing information needs to be placed in a position of priority. In particular, the AR approach has proved to be critical in generating the value of knowledge in practice-based applications. Smith, Jamieson and Winchester (2007) applied an AR program to improve security compliance of information systems across government agencies, which has led to an improvement in related policies and business continuity plans. In fact, the use of AR is not limited to the internal environment of an organization; it can also provide tools and methodologies by which marketing managers can improve marketing strategy and create value for organizations (Maklan, Knox & Ryals, 2008).

5. AR AS A MANAGEMENT ROLE: TAYLOR'S EXPERIENCE

Frederick W. Taylor, one of the famous management experts, introduced a set of scientific management principles that considerably influenced applied sciences' evolution with a distinction between theoretical and practical studies. His practical methodologies were based on systematic observation and empirical tests aimed at improving industrial efficiency and productivity. As a fascinating case example of AR's early practice, we have considered Taylor's Schmidt experience revolving around his systematic experiments and subsequent introduction of scientific management theory. The case dated to the period between 1898 and 1901 at Bethlehem Steel Company and was revealed in Taylor's published book in 1911 under the title of "The Principles of Scientific Management".

The study identifies and analyzes the significant components of that experience as an authentic AR process practiced as a management role rather than an academic project. Taylor's Schmidt experience, related to the replacement of old-fashioned day-to-day work by scientific task, had coincided with the market opportunity of pig iron prices to increase in a situation of supply paucity at that time. Such a business situation had shaped Taylor's research problem that there was a gap between workforce quality and output rate of pig iron per workman. Apparently, the identification of that business problem formed Taylor's stimulus to engage in a research process consistent with his professional practice particularity. This had accordingly crystalized his research objective as a second step:

"trying to develop each individual man to his highest state of efficiency and prosperity" (Taylor, 2012: 34).

As a third step, Taylor had deployed a data collection method which was based on participants' observation:

"Our first step was to find the proper workman to begin with. We therefore carefully watched and studied these 75 men for three or four days" (Taylor, 2012: 34).

This was followed by data analysis as a fourth step:

"At the end of which time, we had picked out four men who appeared to be physically able to handle pig iron at the rate of 47 tons per day [benchmarked to the ordinary rate of 12 tons per day]" (Taylor, 2012: 34).

As his AR was cyclical, the investigation was again initiated through observation (fifth step) and accompanied with a new data collection method, mainly interviews (sixth step):

“A careful study was then made of each of these men [the four men picked out]. We looked up their history as far back as practicable and thorough inquiries were made as to the character, habits and the ambition of each of them”. (Taylor, 2012: 34).

Once more, based on his data analysis (seventh step), a new data collection method (eighth step) was determined and consisted of one participant’s observation inside and outside the business environment:

“Finally we selected one from among the four as the most likely man to start with...” (Taylor, 2012: 34-35).

Further, a new method of data collection (ninth step) was incorporated and involved, interviewing indirect participants to verify and augment the collected data:

“He also had the reputation of being exceedingly “close”; that is, of placing a very high value on a dollar. As one man whom we talked about said: “A penny looks about the size of a cart-wheel to him.” This man we will call Schmidt” (Taylor, 2012: 35).

Exclusively, the outcome of all previous steps led to new steps encompassing re-analysis, data interpretation and planning of a new action (experiment design). The experiment, as a core step, was directed and encompassed an empirical process based on observation and careful testing:

“The task before us, then, narrowed itself down to getting Schmidt to handle 47 tons of pig iron per day and making him glad to do it. This was done as follows. Schmidt was called out from among the gang of pig-iron handlers and talked to somewhat in this way [briefly, the experiment had involved increasing Schmidt’s wage by 60 percent and other specific techniques, like instruction, systematic work tasking and supervision/monitoring]...” (Taylor, 2012: 35).

Finally, but not an end of Taylor’s research cycle, the knowledge gained throughout the experiment had been implemented in his industrial setting:

“One man after another was picked out and trained to

handle pig iron at the rate of 47 and a half tons per day until all of the pig iron was handled at this rate and the men were receiving 60 percent more wages than other workmen around them” (Taylor, 2012: 38).

Based on overall research steps, Taylor sharply drew his conclusion by introducing four fundamental principles of scientific management related to the replacement of the old rule-of-thumb method at work by using scientific selection and training, monitoring and supervision and allocation of work among managers and workers.

As a result, the objective of Taylor’s research activity was addressed through the application of that knowledge in practice, thus attaining:

“prosperity for the employee, coupled with prosperity for the employer” (Taylor, 2012: 56).

Conclusively, through this experience analysis, Taylor’s management approach is consistent with AR’s core concept. His pursued framework involved integration between practice and theory and reflected AR practice’s significant attributes, particularly by being constructivist, situational, practical, systematic and cyclical. Further, the theory generated through Taylor’s inductive research approach is, even now, pertinent to the formulation of concepts and propositions required to conduct studies based on deductive reasoning; i.e., establishing empirically testable hypothesis statements. Taylor had demonstrated how researching managers could make informed decisions based on applied knowledge generated by their own investigation and analysis relevant to their area of practice. This gives a real lesson of how work-based learning can be autonomously encouraged through practice-based projects without necessarily being tied to academia.

6. A FRAMEWORK TO PRACTICE AR AS A MANAGEMENT ROLE

This study has fundamentally provided three contexts: the first one is related to the overall AR concept understanding; the second one is related to the evidence implying the need for integrating the application of AR concept with basic management practices (Mintzberg's managerial roles); the third one is related to Taylor's experience (case study) which reflects the early practice of AR in the management field. The analysis and interpretation of these three contexts and relevant AR knowledge were guided through Carter and Little's (2007) principles justifying epistemology, methodology and method. This has strengthened the rationale behind our philosophical view-point in the synthesis of the generic

executive AR; model. Further, this study's narrative review approach has given the advantage to capture a systematic understanding and draw pertinent conclusions of potential for leading an implementation process (Nilsen, 2015). Based on that, we suggested six building blocks for designing a practice-centric framework of AR; namely, AR cyclic process, data collection and analysis, experimentation activities, applied knowledge, evidence-based change and development of executive scholars. Further, as we have focused on the professional practice rather than academia, three dynamic forces influencing the framework blocks have been proposed: researching managerial behavior, participation and workgroup and research-driven management culture – refer to Figure 1.

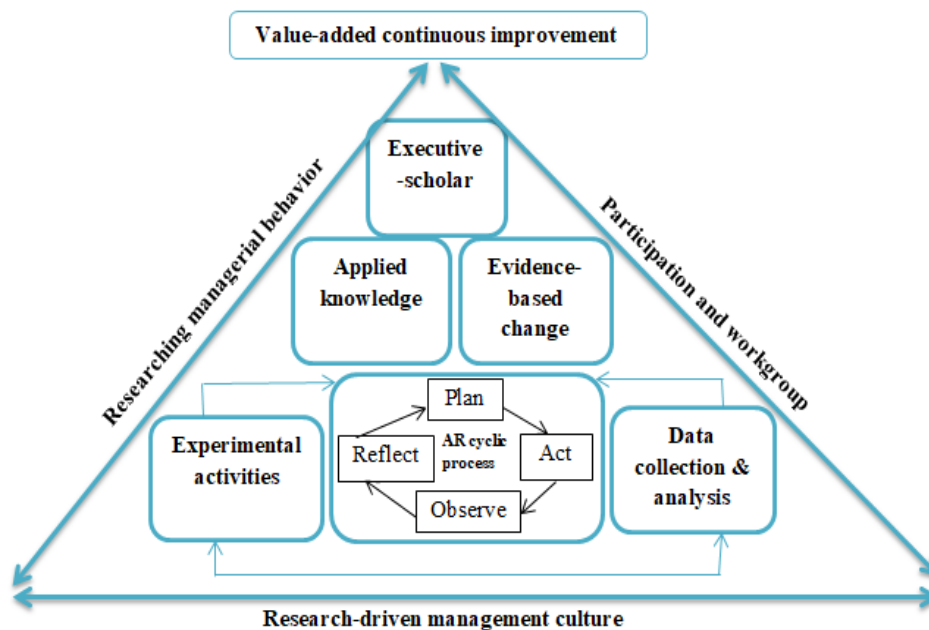


Figure (1)
Practice-centric framework of AR (developed by the authors)

6.1 AR Cyclic Process

The application of AR is fundamentally dependent on

its cyclic process, which may take various forms of theoretical frameworks. In practice, researching

professionals need to follow a practical and simple process of AR. Therefore, it is necessary to embrace the basic four steps: plan, act, observe and reflect. These steps are the key elements of the AR cyclic process that need to be fluid and responsive to actual practices and situations in which managers perform. It is too impractical to advocate adopting combined AR/AL approaches as a part of managers' job responsibilities. These approaches are likely to be more for educational purposes due to the activities of thesis writing and rigorous AL projects. Therefore, it would be more viable to implement the AR cyclic process in practice in accordance with the four basic steps and as per Kemmis and McTaggart's (2007: 277) success criterion:

"The criterion of success is not whether participants have followed the steps faithfully, but rather whether they have a strong and authentic sense of development and evolution in their practices".

6.2 Data Collection and Analysis

The activity of data collection and analysis may involve either qualitative or quantitative tools, or potentially both. This could include literature review, observations, interviews or surveys, which are commonly used in AR. This activity is crucial in AR, as it represents an assessment of the current situation for both theory and real-world application purposes. This activity needs to be well-integrated into the AR cyclic process as a first stage and simultaneously with the whole process. This integration would act as a lens through which explanation and proof of method appropriateness can occur before AR commencement and post-commencement to help establish real insights supporting the whole AR cyclic process conduct. Ordinarily, emphasis on integration is supported by understanding the conceptual approach of AR and Taylor's work. Even though there was no narration related to the step of gathering theoretical or empirical evidence in Taylor's experience case demonstrated previously in this

paper; this fundamental step of AR was indicated in his other related practical studies: *"Our first step was to employ a young college graduate to look up all that had been written on the subject in English, German and French"*. (Taylor, 2012: 43).

6.3 Experimental Activities

As a valid source of knowledge, field experiments provide means for actions to be translated into rationalized tasks leading toward desired change and improvement. Valuing the experiment activity pertains to the significance of estimating the causal impact of an action on its target process or population without random application. Thus, managers committed to change through AR need to be aware of experimental designs' principles in terms of reasoning, characteristics of a well-planned experiment and basic experimentation steps (Hinkelmann & Kempthorne, 2005). Further, AR experimentation activities infer the nature of AR as an extendable research approach. For instance, it was found that Taylor's experimentation principles with Schmidt's case had been extended and advanced in terms of investigation and application to other kinds of labor-intensive processes, such as shoveling. Thus, this indicates the dynamic nature of AR as an ongoing process of systematic and modifiable steps intended to lead to actions that promote not necessarily only one area of practice, but also inclusive organizational improvements.

In the field of management, experimental steps need to be methodically directed by keeping the subject in question focused and successively to develop it into a coherent project. This implies the need for appropriate linking of experiments with the other blocks of the AR process demonstrated in AR's practice-centric framework. Besides Taylor's

experiences, other famous action researchers had reflected, in one area or another, the role of AR experiments as an integral part of their managerial consultation projects; for instance, Lewin demonstrated this role by applying two different interventional approaches of training for 300 newly recruited workers divided into two groups (Adelman, 1993). The outcome of his experiment supported the process of making informed decisions on one hand and provided, on the other hand, effective solutions for improving employees' performance and morale.

6.4 Applied Knowledge

Action researchers commonly attempt at knowledge with action in mind. In doing so, those researchers expose their minds to questions relevant to practice and theory understanding. This attempt forms the essence of AR goals to solve real organizational problems and contribute to the body of knowledge. In other words, it is the process of marriage between expert knowledge and research knowledge, which should be driven towards producing quality applied knowledge. This means that applied knowledge should be attributed with systematically analyzed evidence along with problem-solving functionality and adaptability. This is logically dependent on the quality of previously mentioned related blocks in terms of data collection and analysis, AR cyclic process and experimentation activity. As for data collection and analysis, the activity is not merely dependent on the used tools of inquiry, but also on the researchers' breadth and depth of understanding for the complexity of their organizational systems, structures and operating dynamics, all of which form a determinant factor (Gummesson, 2000). Hence, the AR cyclic process needs to be grounded within the dual focus of both the inquiry and the implementation processes (Shani & Pasmore, 1985). And as mentioned in the previous sub-section, experimentation activity needs to target real problems based on experimental designs'

principles to reduce errors and uncertainties.

6.5 Evidence-based Change/Improvement

The success of change depends on the quality of generated knowledge, its aptness to particular situations and problems and the effectiveness of deploying that knowledge across practice, policy or strategy. It is apparent through this study that the capacity to change could not be viewed through the quality of generated evidence in isolation. The combination of the three dynamic forces associated with the AR framework plays a critical role in determining that capacity of change. Further, the AR experience exemplified through Taylor's case supports practicing AR as a management role and leads to the conclusion that managers could legitimately practice change management, attain practical and enduring solutions, stimulate learning and contribute simultaneously to the fund of knowledge. Thus, the blocks of applied knowledge and evidence-led change can open avenues for researching managers to validate their interpretations, diagnoses, actions and changes in scholarly theory as to whether the change process was successful or not. Beyond that, managers as action researchers could further legitimate, justify and foster intended change through using their position-associated authority of decision-making.

6.6 Development of Executive Scholars

This block, as an ultimate goal, supports the answer of this study question: 'To what extent do managers need to practice AR as a managerial role grounded in the reality of their businesses and beyond the frontiers of academia'? The answer is: to a great extent, as it is desirable to develop executive scholars capable of independently conducting research

relevant to their area of practice while not necessary being affiliated to an academic program. It has been noticed, for instance, that many organizations in Latin America have sent their high- and mid-level managers to pursue their professional doctorates (Bisoux, 2009). In our view, this approach is insufficient and the output of academic programs needs to be effectively reinforced by warranting a fertile ground for applied research activity in business organizations. Hence, practice-centric frameworks of research need to be inaugurated in organizational policies and strategies to facilitate the conduct of professional research as part of management practices. This approach can add value to their performance on a sustainable path, ideally, if that approach is positioned to create executive scholars who could make their knowledge contribution to the industry useful for academic purposes and journals of management scholarship, instead of the sole dependence on the existing trend of applications of research from academic study to industry. The development of AR could, in the long term, align managers' research competencies to their executive strategic insights and expertise, which, in turn, would create a wide pool of research- oriented managerial talent. Successively, these talents can lead to the application of management techniques through continuous improvement in practice, education and scholarship.

6.7 AR Dynamic Forces

The approach and standards of AR conduct may reveal a situation of complexity; thus, the question may arise as previously mentioned 'Would it be too much to expect managers to perform the role of action researchers?' In light of this study, the answer to that question depends on the dynamic forces associated with the practice-centric framework of AR; first: the force of research-driven management culture in which an organization's level of support and dedication for research conduct extends to fostering its application in practice and change process.

This culture implies sustainable management driven by tangible support that could include access to expedient research infrastructure, sufficient budget for AR conduct, rewards and incentives schemes and effective partnerships with relevant stakeholders. Second, as the question of 'What makes a manager effective?' remains largely unanswered (Vinkenburg, Koopman & Jansen, 2001), we underline the aspect of a manager's research behavior to reinforce the framework. Taylor's experience infers that AR needs to stretch far and wide beyond the educational field requirements towards the idea of creating researching managers who should recognize research activity as an integral part of their professional interest and as an autonomous process in their managerial performance. Third, participation and workgroup, as one of the keys to successful AR endeavor, "*it [AR] is an evolving process that is undertaken in a spirit of collaboration and co-inquiry*" (Shani & Pasmore, 1985: 439). This largely depends on the researching manager's ability to open lines of communication and interaction among different members involved in the AR inquiry or change process and to make those participants contribute to evolving solutions.

7. POTENTIAL CHALLENGES IN AR APPLICATION

While it is understandable that most organizations are complex structures involving myriad managerial practices, hierarchical structures and operations, the aspect of research still needs to be effectively incorporated into these complex systems. AR, a coherent and effective research paradigm for promoting evidence-based professional practice, needs not only to be limited with education-centric-based frameworks (like professional doctorate

programs), but needs to be incorporated within the management practices autonomously and systematically. However, there are different challenges encountered in the implementation of AR in practice, including -but not limited to- 1) compliance to the standards of AR conduct, which are already difficult to achieve (Cassell & Johnson, 2006; Eden & Huxham, 1996); 2) quality, practicality and value of intelligence that the research aims to produce and address the much-needed issues of concern for the organization (Reason, 2006); 3) fostering collaboration/participation by the subjects and supporting the learning cycles (Karlsen, 1991); and 4) control over research methods and cycles, theoretical and methodological connections and interventions/actions (Coghlan & Brannick, 2014; Phelps & Hase, 2005). Such complexities that might be encountered by researching professionals cannot possibly be controlled unilaterally and there is a need to be well tackled by concerted and mutually structured efforts through a well-designed framework like the one proposed in this study.

8. THEORETICAL AND PRACTICAL IMPLICATIONS

Previous studies highlighted the significance of adopting evidence-based management rather than focusing on mechanisms of generating applied knowledge (Rousseau & Olivas-Luján, 2015; Pfeffer and Sutton, 2006; Reay, Berta & Kohn, 2009). This study fills that gap and offers means to foster managers' researching capability. From another angle, recent studies emphasized the role of managers' research capability to promote managerial competencies and executive power (Kang et al., 2012) and that investing in knowledge management is associated with positive returns on organizational performance (Alharthy, 2018). Hence, this study complements such scholarly work by providing a practical AR model to support both aspects of managers'

research capability and applied knowledge creation. It is worth noting that there is a burgeoning research trend focusing on employee participation and creating a culture of teamwork for enhancing decision making (Abuzaid, 2018; Abuzaid & Al-Rawashdeh, 2020). AR as described in this study, as a potent participatory inquiry and practice change leading activity, could potentially promote the objectives of optimizing the decision-making processes.

Given this background, the theoretical contribution of this study to the literature on AR and research-based management is crucially threefold. This study contributes (1) to the philosophy and methodology of AR *via* introducing a practice-based model applicable for hypothetical testing and generating actionable knowledge; (2) to the scientific knowledge with regard to the role of managers to deploy applied research principles and methods; (3) to the approach of developing executive scholars *via* practice-centric research tactics in order to encourage the mindset of evidence-based management. In practice, this study has several implications on shifting management from an intuitive-based approach to a rationale-based approach. Hence, through the practical insights and AR framework of this study, there are many possibilities for policy-makers and organizations' decision-makers to revise their approaches for tackling and addressing the confronted complex business issues. Further, this study provides avenues for human resource experts to revise the competencies of managers' job descriptions and put into account the role of researching competency at the forefront of management practice requirements. This could also empower management candidates qualified with executive research degrees to reflect their academic knowledge on practice, hence promoting value-added contributions.

9. CONCLUSION

AR is not only about change; it is a great deal of learning and doing that must be taken as a dynamic project for aspiring organizations and as a fundamental competence for leading managers. The existing evidence indicates its positive payoffs when associated with different managerial activities, whether related to decision making, employees' performance or communication.

The concept of AR is easy to be understood as a means of integrating theory and practice, but is challenging to be translated into a managerial role or an organizational strategy, as this requires a radical shift from conventional thinking to integrative thinking; whether at the individual or at the organizational level. According to our perspective, this shift primarily needs a well-designed framework of AR relevant to practice and managers' roles. The six building blocks of the proposed framework encompass the AR cyclic process, data collection and analysis, experimentation activities, applied knowledge, evidence-

based change/improvement and the development of executive scholars.

Managers, irrespective of their hierarchical level or management field, can pursue the role of action researchers effectively when these building blocks are synchronized through a research-driven management culture, participatory and collaborative environment among involved organization members and research professionals and most importantly, managerial behavior of researching professionals driven by simultaneous research and action learning. Further, Taylor's different managerial experiments – including process, content and context of these experiments – give a reasonable scope to aspiring managers to leverage the practice of the role of action researcher while keeping in mind the current global trend and demand for competent executive scholars capable of leading evidence-based change and contributing simultaneously to workplace learning and basic knowledge.

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