Identifying Key Driving Forces and Techniques: A Review on the Emerging Evidence-Based Entrepreneurship

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Abstract—Still divisive arguments which is going on the topic of evidence-based entrepreneurship(EBE) demands a more focused review that would enable to foster the field of nascent ideas like evidence-based management(EBMgt) as a whole. As we know evidenced-based management is a science-defined platform and EBE being a part of greater EBMgt, we can't rule out the massive scientific rigour that will exist intact with EBE. Entrepreneurship theory consider novelty as a de facto element must be existing but the practice in evidence-based modeling needs to establish standards by existing best experiences. To provide a guideline for researchers interested in the mentioned area, this paper would like to discuss the key important factors in the further development of EBE along with major attributes already explained by prior researchers to design EBE as a broader research topic.

The present paper has categorized how systematic examination of a phenomenon puts a major barrier to the advancement of evidencebased practice in entrepreneurship. Here we tried to suggest ways on how the researcher can provide with minute details and EBE that comes with academic guidance can be far more resilient in the utilization by practitioners.

The paper would contain a review of previous literatures in the theme of EBE and EBMgt. In this attempt we would like to focus on how public policy institutions may use EBE as a tool to design programs for new venture and small business.

Keywords: Evidence-Based Entrepreneurship, Entrepreneurship Process, Evidence-Based Management.

1. INTRODUCTION

The beginning of Schumpeterian [16] defined era entrepreneurial spirits wild and termed it as "Unternehmergeist" he divulged a new way of economic development and to describe it he borrowed the phrase " creative destruction" and elaborated it as...the doing of new things or the doing of things that are already being done in a new way. After hundred years of his seminal work, entrepreneurship is in a strong footing in academic and research arena and exploring new dimension to engage itself in a greater way to foster its pivotal position in the field of economics, management and social science at large. Evidencebased entrepreneurship (EBE) builds on the insight from related practice of evidence-based management [22].

But when we dive deep inside, it gives us quite a clear view that the practice of evidence-based management historically started as long back as the innovation of germ theory which is mostly propounded by Ignaz Semmelweis, 1847 and later on fostered by the work of Lister and Pasteur forty years later...when Ignaz Semmelweis discovered the role that doctors are the main culprits for infecting new born babes and their mothers by carrying germs in-between babes and dead bodies (Wikipedia, 2014). Evidence-based medicine is already a success story as the first domain to institutionalize evidenced-based practice [24].

But when we are going to integrate all the positives of evidence-based practice derived from the success stories mainly from medicine, criminology and other fields, we find it quite tough to manipulate because unlike medicine or nursing, management or entrepreneurship is not a profession [24]. The principle lacuna that emerges here unlike core professions as medical neither in management nor in entrepreneurship we can establish benchmark based on the best available evidence. The basic understanding regarding entrepreneurship in a greater and revolutionary aspect comes with a notion like "Romance of Leadership Theory" where we see an entrepreneur as a change agent, revolutionist someone who transform things in a new way...the most urgent elements here is he comes with novelty. This aspect of entrepreneurial is partially when definition true we focus on "Transformational Entrepreneurship" but mostly untrue when our focus diverted towards "Subsistence Entrepreneurship", [29]. When it's transformational entrepreneurship, the uniqueness in deliberation both in the thought process and the demonstration becomes truly valid. The very heuristics [5] nature that comes with entrepreneurship makes new born entrepreneur mostly depend on guts and being swift to find opportunities and accept it. Thus it is plausible that evidencebased recommendations concerning entrepreneurship may be appropriately made only at higher levels of abstraction than found in other evidence-based fields [12].

Implementation of evidence-based practice in the field like entrepreneurship comes with a drawback that entrepreneurship unlike other profession doesn't need any typical schooling or degrees and there is a huge discomfort zone that never let scholars to put all the heterogeneity among all sort of entrepreneurs to put them in a single group and divulge one single evidence-based practice that will best suit for a single problem. As each successful entrepreneur arrive to sort out and bring solution to a different kind of problem or even for the same problem but in a different manner so promoting solutions based on best available evidences hardly match the intimate need. Inspite of all these lacuna still there is ample space for evidence-based entrepreneurship to grow. Most importantly if we see the implementation of EBE from the perspectives of public policy makers, shareholders, bankers, seed-fund managers....EBE has a huge scope to get flowered. Unlike most developed nations the emergence of EBE is not so vibrant in newly emerging economic powers, here designing EBE as a technique to articulate programs for entrepreneurship development mostly by public policy institutions can thrive both new ventures and already existing small business. Designing programs based on already existing evidences, that will train, guide, award fund for effective entrepreneur will be nonpareil form both government perspective and will make sure EBE as a dependable mechanics to disseminate knowledge earned on existing proven exercise.

2. CONCEPTUAL BACKGROUND

It is already accepted truth and which is existing for quite a long time that the kind of knowledge generated in academic arena in the field of both entrepreneurship [35] and management [25, 33] are quite different from the kind of knowledge that is expected in real life practice. This notion is partially true because it is already validated that very few managers regularly read academic journals [26] but are running their business successfully. So the question arrives here is really entrepreneurial training or management education help to run a business successfully? Or why all those good findings in academic field mostly remain untouchable to the practitioner? The reason for evidence-based management and entrepreneurship still being non-existent in real life practice is mostly because the way all those business studies curricula is designed has never excited new manager to deeply focus on scientific research evidence rather it persuade them to spend most of their course-time on extensive case studies. The strong argument most of the time put in, management is not a profession where practitioners are required to pass examinations to obtain license to practice, or undertake continuing education [23, 27]. Still there is a need for entrepreneurial training and development to arouse entrepreneurial intentions among students, entrepreneurial education mostly denoted as education for entrepreneurial attitudes and skills and entrepreneurial intentions are desires to own or start a business [1]. Primarily entrepreneurial education unlike formal education need to design programs which will enhance students attitude towards opportunity search and creating high levels of involvement with the information search task and with informational resources [31]. Practitioner audience who may be either manager or an entrepreneur always look for compact information but most of the times scholars prefer to put their findings in highly academic jargons which most of the times are very much inaccessible and unappealing to them [6, 32]. While evidencebased entrepreneurship still being a controversial field of discussion earns comments whether science-based practice in EBE can be used to mediate it as a technique to fabricate, analyze, & interpret entrepreneurial opportunity findings and to a greater extent designing a framework for promoting EBE and to make it more relevant in fulfilling practitioner and research gap.

3. FINDINGS

Going through the previous literature in the field of evidencebased approach it's quite enlightening that even at this age of scientific development still in the field of management and entrepreneurship except few bright-spots like medicine, criminology and few other the practice of science-informed decision making is mostly invisible because still practitioners mostly depend on heuristic-based decision making and giving ultimate reliance on earned experience through their professional career. If modern days manager put little effort to forget their advocacy on heuristic and use research evidences from past to derive principles and translates them into sound organizational practices, they can avoid investing their precious resources in a bad decision making.

4. DISCUSSION

We always prefer to see entrepreneur a bit angel-like or demonic...in first instance he/she simply arrive almost unknowingly, and bring beautiful changes in the way we live or think till date, and we just love to accept the newness he/she bring to our life but for the second option, he/she comes with a whirling wind just to destroy the status-quo, he/she is impatient, create new approaches to live life by ensuing "Creative Destruction". Seeing entrepreneurship through the above structured lenses make it almost impossible for research community to draw systematic observations of the practices of entrepreneurs and the outcomes of their actions have been rare [10].

To develop a science-informed practice in entrepreneurship, much expensive meta-analysis as a tool we found is used extensively by scholars because good evidence is given when empirical relationships are based on several studies and several observations, rather than on just one study and one observation [11]. Inside meta-analytic studies on EBE we found most of the studies is done in the arena of quantitative research because when look for evidence-based practice we somehow shipped into randomized controlled trails that are generally accepted as the most valid source of evidence [9]. The field of entrepreneurship is increasingly accepting quantitative meta-analyses as a way of establishing evidence in this domain [21]. However field of entrepreneurship is diversified, which is reflected by contributions from multiple disciplines, different theoretical perspectives, different and partially incompatible methodologies, and various units of analysis [8].

To sort this out scholars can take help of systematic synthesize of qualitative case-studies which is new in EBE but already have been conducted in areas such as healthcare, nursing research, psychotherapy [2]. The main focus of scholars' always remain on the fact so that their theories become grounded and robust when other researcher verify their findings by looking at the same phenomenon from different angles using different data collection strategies and data source [34]. Without generalizing evidence based approach neither in medicine nor in entrepreneurship is hardly acceptable for implementation because generalization in evidence based approaches will enhance decisions and steps accomplished through the synthesis should be shared, and thus should be replicable [21]. It's urgent because the landscape of entrepreneurship research is still to a large extent multiparadigmatic in nature, including fundamentally different prospective on what entrepreneurship is, how entrepreneurial opportunities are formed, what determines the performance of new ventures [15, 17 & 35]. This very nature always troubled scholar in this filed to find out a single paradigm, this type of divergent ontological and epistemological views not only hurt to bring all entrepreneurial research contexts in single paradigmatic topic to advance it as a scholarly discipline and professional practice [4]. Here evidence-based practice may arrive as a savior with its science based practice to synthesize a dispersed body of existing research evidence in the field of entrepreneurship as it is orchestrated quite nicely in the field of medicine for example we can take a review of Cochrane Collaboration which works as a community to give online access to doctors to get information about clinical practice with proven evidence generated by health care expert [24].

The most benefit receptor of this kind of evidence-based practice in entrepreneurial research will be the entrepreneurship policy makers, provider of fund for new comer in the field of entrepreneurship, and from the perspective of a developing nation, its government at large. Entrepreneur Intent (EI) and Entrepreneurship Orientation (EO) will be two most interesting area of evidence-based entrepreneurial research from a government perspective and it will result in designing best entrepreneurial education, training and development program, even such studies will help those policy makers who are responsible for architecting government grant awarding rules and regulations. EI scholars always tried to draw a model that encompass how beliefs, attitudes, perceptions make few individuals more sensitive to perceive feasibility of a new opportunity and feel confident that they are personally able to start their own business [30]. Perhaps the most compelling objective of any entrepreneurial program is to create an environment that is positive towards engendering entrepreneurial intention among its fellow student. Though EI till date, with large counts of alternative models can be tagged as the most divergent field of research with multiple emerging models which most of the time conflicting with each other and resulted in a fragmented outlook that will highly appreciate an evidence-based approach to integrate it in a more precise model build-up. The studies on EI is fragmented into two parts either methodological or contextual constructs, to inculcate a more systematic overview of the empirical evidence on the determinants of EI we need to identify the points of uncertainty in those competing theories and their respective constructs [28].

On the other hand EO is so solely connected with national culture and philosophy that for any nation precisely for a developing country, EO is indispensable while forming a national agenda for entrepreneurial upsurge, EO has a close bonding with informal institutions like culture and formal institutions like economic, political, and regulatory environments determine the context in which strategic postures are implemented [3, 13]. Strategic-choice theory [7], introduced us with EO for the first time, later on its close bonding with culture is more cemented in Miller's [18] pioneering work when he partitioned EO in innovativeness, productiveness, and risk taking. Culture as an informal institution in national front has always been influenced by cross-cultural psychological dimensions like uncertainty avoidance, power distance, in-group collectivism, and assertiveness along with formal institutions like economic, regulatory, and political environment that always been used to determine the "rules of the game" in strategy implementation at the national level [14, 19 & 20]. Similar to EI, the field of EO is much fragmented with so many heterogeneous, selfconflicting ideas that put urgency for an evidence-based approach in the field of EO which will arrive not on the basis of a single study but from a rigorous observation.

5. LIMITATIONS OF THE STUDY AND FUTURE RESEARCH SCOPE

The primary ingredient to put much of restraining order for us is the scarcity of related literature in the field of evidencebased practice in entrepreneurship and many times due to our inability to access necessary articles. Another obvious limitations of this paper is it's conceptual nature. Evidencebased practice is a broad concept has few bright spots with practical application in area like medicine but due to lack of empirically proven data base that confirms its application in multi-dimensional-field like entrepreneurship, many times discourage both scholars and practitioners.

Evidence-based practice comes with lot of new hopes, firstly it will truly help practitioner to make decisions based on scientific evidence. If future research can include more related variables effecting entrepreneur's decision making with empirically tested data we can get a more cohesive picture of EBE and can develop a more comprehensive framework that will help firstly entrepreneurship as a literature and secondly we can highlight the scenario of current Indian entrepreneurial activities from entrepreneur himself to venture capitalist, from educationist to policy makers.

6. CONCLUSION

As we mentioned evidence-based practice in the field of management or precisely entrepreneurship has the burden of its newness. So being controversial in nature with conflicting ideas is purely acceptable. But the way scholars approaching in this field with meta-analysis both in quantitative and qualitative field of research, we could aspire to see EBE or EBMgt as a field of practical implications not only from the scholar's point of view but from those who either divulge new regulations from the public institution's perspectives for awarding grants to new venture formation and design educational & developmental program for new entrepreneurs or existing practitioners who normally avoid to read all those scholarly new findings. Connecting science with management practice in a constructive way has always been an area of concern but the approach to build a evidence-based model to understand the natural science of organization and it's unanticipated problems associated with authority and consent goes back as early as Chester Barnard (1938). Perhaps the most important infix will come with evidence-based management is blurring the boundaries between practitioner, researcher, educators and policy-makers.

REFERENCES

- Bae, T. J., Qian, S., Miao, C., & Fiet, J. O., (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. *Entrepreneurship Theory and Practice*, Vol. 38, No. 2 (March., 2014), pp. 217-254.
- [2] Briner, R. B. & Denyer, D. (2012). Systematic review and evidence synthesis as a practice and scholarship tool. In D.M. Rousseau (Ed.), *The Oxford handbook of evidence based management* (pp. 112-129). New York: Oxford University Press.
- [3] Bruton, G., Ahlstrom, D., & Li, H. (2010). Institutional theory and entrepreneurship : Where are we now and where do we need to move in the future? *Entrepreneurship Theory and Practice*, Vol. 34, No. 3, pp-421-440.
- [4] Burg, E., & Romme, A. G. L., (2014). Creating the future together: Toward a framework for research synthesis in entrepreneurship. *Entrepreneurship Theory and Practice*, Vol. 38, No. 2 (March., 2014), pp-369-398.

- [5] Busenitz, L. & Alvarez, S. (2007). Cognition and capabilities in entrepreneurial venture. In J. R. Baum, M. Frese, & R.A. Baron (Eds.), *The psychology of entrepreneurship* (pp. 131-150). Mahwah, NJ: Lawrence Erlbaum Publisher.
- [6] Cascio, W. F., (2007). Evidence-based management and the marketplace for ideas. Academy of Management Journal, 50(5), 1009-1012.
- [7] Child, J. (1972). Organisational structure, environment and performance: The role of strategic choice. *Sociology*, Vol. 6, No-1, pp-1-22.
- [8] Davidsson, P., Low, M., & Wright, M. (2001). Editor's introduction: Low and McMillan ten years on: Achievements and future directions for entrepreneurship research. *Entrepreneurship Theory & Practice*, 25(4), 5-15.
- [9] Davies, H.T.O. & Nutley, S. N. (1999). The rise and rise of evidence in health care. *Public Money & Management*, 19(1), 9-16.
- [10] Dimov, D., (2011). Grappling with the unbearable elusiveness of entrepreneurial opportunities. *Entrepreneurship Theory and Practice*, Vol. 35, pp. 57-81.
- [11] Frese, M., Bausch, A., Schmidt, P., Rauch, A., & Kabst, R. (2012). Evidence-based entrepreneurship (EBE): Cumulative science, action principles, and bridging the gap between science and practice. *Foundations and Trends in Entrepreneurship*, 8, 1-62.
- [12] Frese, M., Rousseau, D. M., & Wiklund, J. (2014). The emergence of evidence-based Entrepreneurship, *Entrepreneurship Theory and Practice*, Vol. 38, No. 2 (March., 2014), pp. 209-216.
- [13] Hoskisson, R., Eden, L., Lau, C., & Wright, M. (2000). Strategy in emerging economics. *Academy of Management Journal*, Vol. 43, No. 2, pp-249-267.
- [14] House, R. J., Javidan, M., & Dorfman, P.W. (2001). Project GLOBE: An introduction. *Applied Psychology: An International Review*, Vol. 50, No-4, pp- 489-505.
- [15] Ireland, R. D., Webb, J.W., & Coombs, J. E. (2005). Theory and methodology in entrepreneurship research. In D. J. Ketchen, Jr., & D. D. Bergh (Eds.), *Research Methodology in Strategy and Management* (pp. 111-141). Oxford: Elsevier.
- [16] Joseph Schumpeter. Retrieved February 2, 2015, from http://en.wikipedia.org/wiki/Joseph_Schumpeter.
- [17] Leitch, C. M., Hill, F. M., & Harrison, R. T. (2010). The philosophy and practice of interpretivist research in entrepreneurship. *Organisational Research Methods*, 13(1), 67-84.
- [18] Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, Vol. 29, No-7, pp-770-791.
- [19] North, D. (1991). Institutions. *Journal of Economic Perspectives*, Vol. 5, No-1, pp-97-112.
- [20] Peng, M., Wang, D., & Jiang, Y. (2008). An institution-based view of international business strategy: A focus on emerging economies. *Journal of International Business Studies*, Vol. 39, pp- 920-936.
- [21] Rauch, A., Doorn, R. V., & Hulsink, W., (2014). A qualitative approach to evidence-based entrepreneurship: Theoretical considerations and an example involving business clusters. *Entrepreneurship Theory and Practice*, Vol. 38, No. 2 (March., 2014), pp. 333-368.
- [22] Rousseau, D. M., (2012). Envisioning evidence-based management. In D. M. Rousseau (Ed.), *The Oxford handbook of evidence-based management* (pp. 3-24). Oxford, UK.: Oxford University Press.
- [23] Rousseau, D. M. & McCarthy, S. (2007). Educating managers from an evidence-based perspective. *Academy of Management Learning and Education*, 6(1), 84-101.

- [24] Rousseau, D. M., (2005). Is there such a thing as "Evidence-Based Management"? *The Academy of Management Review*, Vol. 31, No. 2 (Apr., 2006), pp. 256-269.
- [25] Rynes, S. L., Bartunek, J. M., & Daft, R. L. (2001). Across the great divide: Knowledge creation and transfer between practitioners and academics. *Academy of Management Journal*, 44(2), 340-355.
- [26] Rynes, S. L., Colbert, A.E., & Brown, K. G. (2002). HR professionals' beliefs about effective human resource practices: Correspondence between research and practice. *Human Resource Management*, 41(2), 149-174.
- [27] Rynes, S. L., Giluk, T., & Brown, K. (2007). The very separate worlds of academic and practitioner periodicals in human resource management: Implications for evidence-based management. Academy of Management Journal, 50(5), 987-1008.
- [28] Schlaegel, C., & Koenig, M., (2014). Determinants of entrepreneurial intent: A meta-analytic Test and integration of competing models. *Entrepreneurship Theory and Practice*, Vol. 38, No. 2 (March., 2014), pp-291-332.
- [29] Schoar, A., (2009). The divide between subsistence and transformational entrepreneurship. *NBER Innovation Policy and the Economy*, Vol. 10 (February 2010), pp- 57-81. http://www.nber.org/chapters//c11765.pdf.
- [30] Shapero, A., & Sokol, L., (1982). Social dimensions of entrepreneurship. In C. A. Kent, D. L. Sexton, & K. H. Vesper (Eds.), *The encyclopedia of entrepreneurship* (pp. 72-90). Englewood Cliffs, NJ: Prentice-Hall.
- [31] Steffens, P. R., Weeks, C. S., Davidsson, & P., Isaak, L., (2014). Shouting from the ivory tower: A marketing approach to improve communication of academic research to entrepreneurs. *Entrepreneurship Theory and Practice*, Vol. 38, No. 2 (March., 2014), pp. 399-426.
- [32] Terpstra, D. E. & Rozell, E. J. (1998). Human resource executives' perceptions of academic research. *Journal of Business and Psychology*, 13(1), 19-29.
- [33] Thomas, K. W. & Tymon, W.G. (1982). Necessary properties of relevant research: Lessons from recent criticisms of the organisational sciences. *Academy of Management Review*, 7, 345-352.
- [34] Yin, R. K. (2003). *Case study research, design and methods* (3rd ed.). London: Sage.
- [35] Zahra, S. A. & Wright, M. (2011). Entrepreneurship's next act. *Academy of Management Perspectives*, 25(4), 67-83.