



ACADEMIC RESEARCH – A DRIVER TO PUBLIC SECTOR PROGRAMMING: BARRIERS AND APPROACHES FOR IMPROVEMENTS

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Abstract:

Research is a systematic approach for creation and advancement of knowledge and practice. Universities in Uganda generate contemporary findings to facilitate advancement of knowledge and practice in the Public Sector in relation to policy, society, marketing, business, technology and management. However, evidence continued to highlight limited progress in the public sector programming as opposed to research. Despite the research in academic institutions, no specific study has examined uptake of research evidence in the Public Sector in Uganda. This study was commissioned for examining the barriers to utilization of academic research evidence in the Public Sector in Uganda with the Ministry of Agriculture as a case study. The case study research design was used for assessment of uptake of research findings. Qualitative data was collected using key informant interviews of Key technical Officers from Ministry of Agriculture in Uganda. Thematic and content data analysis was used for analyzing the qualitative data. The study established that utilisation of research findings was constrained by awareness, access and quality of research evidence. However, the barriers constraining utilisation of academic research included, poor linkage, lack of engagement, dissemination, access, low quality of research findings. The study therefore recommends systematic addressing barriers for improvement of research uptake and practice.

Keywords: academic research, evidence, barriers and utilization

1. Introduction

Utilization of Research Evidence is rooted in evidence-based practice (EBP), which traces back in the fourteenth century where it first manifested in the medical field as

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evidence-based medicine (Banks, 2009). Since then, the use of evidence to inform policy and management decisions has become widely accepted (Briner, N.D. & Swan et al., 2012), prompting the evolution of a much newer terminology “*evidence-based management*” (Barends et al., 2014) in the management discipline *generally*. The term “*research evidence*” is often used interchangeably with “*research*” or “*evidence*” which commonly refers to empirical findings derived from scientific methods involving the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge (Tseng, 2012).

This study explored uptake or utilization of academic research evidence in agricultural programming in the Ministry of Agriculture Animal Industry and Fisheries of Uganda. Focus was on the barriers and facilitators with an intention to identify appropriate strategies to fast-track utilization of enormous research evidence generated by scholars in academic institutions of Uganda. The study leverages on the general notion from literature on research utilization that despite the rapidly increasing volume of research evidence with a significant potential to contribute to development programming, research evidence is insignificantly used (Nelson, 2009; Squires et al., 2011; Swan et al., 2012; Doran et al., 2012; Nabyonga et al., 2012; Straus, et al., 2013; Estabrooks et al., 2015). For instance, it is estimated that only about 15% of management decisions are based on scientific evidence whilst the rest are made on basis of obsolete knowledge gained in school, traditions, experience, beliefs or other sources of information (Pfeffer & Sulton, 2006).

The concept of “*research uptake*” or “*research utilization*” often used synonymously is rooted in the literature of knowledge translation (KT), a relatively new, complex and multidisciplinary concept that encompasses all steps, right from the creation of new knowledge, to its application to yield beneficial outcomes (CIHR, 2004; 2005). Studies on research utilization date back in the 1970s and 1980s, a time Henry and Mark (2003) called the “*golden age*” for work on evaluation use and knowledge utilization. Carol Weiss, a leading figure in this field, was initially motivated to understand why government would support research but not use the findings. Whereas the concept of research utilization has evolved overtime (Caplan et al., 1975; Estabrooks, 1999; Estabrooks & Wallin, 2004), its understanding generally draws from the Weiss’ (1979) and definition “*a process of interaction between research inputs and decision outputs*”. Squires et al. (2011) defines research utilization as a process by which specific research based knowledge is implemented in practice. Leveraging on these classical definitions and considering the study context, research utilization was used to mean the process by which academic research evidence is translated and used to inform management decisions in agricultural programming i.e development of policies, strategies, plans, guidelines management systems for enhanced growth and performance of the Ministry of Agriculture Animal Industry and Fisheries.

Both the classical and operational definitions of research utilization draw insights from the “*knowledge-driven model*” and the “*problem solving model*” of research utilization (Weiss, 1979). The knowledge driven model is based upon the process of discovery typically used in the natural sciences which begins with basic research,

followed by applied research, development, and finally application. The idea is that basic research discloses some opportunity that may have relevance for public policy; applied research is conducted to define and test the findings of basic research from practical action; if all goes well, appropriate technologies are developed to implement the findings as a way of applying the evidence. On the other hand, the problem-solving model assumes that problems exist for which there is no solution or there is limited data to support a proposed solution. Consequently, research provides the missing knowledge to address a problem (Weiss, 1979). The models are relevant to analysis of utilization of academic research evidence which is often basic or applied in nature and mainly target to address development problems in specific contexts by informing decision making. This is what Estabrooks, (1999) regards as the instrumental dimension of research utilization.

1.2 Study rationale and context

Like elsewhere in the world, limited research utilization remain an issue of concern to national development stakeholders in Uganda (Nabyonga et al., 2012; Esaku, 2016; Ongolo-Zogo, et al. 2014; Uganda Cabinet Secretariat 2013). While substantive literature provide understanding of the barriers to and facilitators of utilization of research evidence, there is paucity of knowledge on research utilization in a specific context of academic research evidence and agricultural programming where limited research utilization has been reported to contribute to challenges of low production, productivity and declining contribution of the sector to the economy (NDP II, 2010; World Bank, 2016). This is brought forward in the National Development Plan II (NDP II, 2010; World Bank, 2016; National Agricultural Policy (NAP); Agricultural Sector Development Strategy Investment Plan (DSIP). Notably, this situation prevails amidst a wave of policies, strategies and programs towards enhancing performance of the sector. Overall, the sector bears a huge potential to contribute to national development given that it employs 72% of the workforce, contributes 25.3% to GDP and 40% to export earnings in FY 2012/13 and is therefore critical in increasing household incomes and promoting equity (IMF, 2014; MFPED, 2016). Arguably, addressing the challenges in the agricultural sector and improving its contribution to national development partly necessitates strategic approaches to develop and implement policies, strategies and programs which are based on scientific evidence partly generated by academic institutions.

Understanding the barriers to utilization of academic research evidence in agricultural programming in agricultural programming is paramount. This focus of the study leverages on a variety of literature from a theoretical and empirical orientation (Balfanz 2012; Nelson et al., 2009; Newman, 2012; Cameron et al., 2011; Burchett, et al., 2012; Campbell et al. 2011; Cherney and Head 2011; Brown, 2012; Ward, et al. 2009; Williams, 2012; Lightowler & Knight, 2013; Fazekas, 2012) has explored low utilization of research evidence in different contexts and associate low utilization of research evidence with the quality attributes of the evidence and its transfer, dissemination from researchers to policymakers or access by the latter. Similarly, in Uganda, limited

utilization of research evidence has been linked with quality and accessibility to the evidence though in the context of health care systems (Esaku, 2016). These factors are commonly referred to as “*barriers*” the opposite of which is referred to as “*facilitators*”. Freadway (2015) defines barriers to the use of research evidence defined as those circumstances, facts, or influences that interfere with or inhibit the use of such evidence. Facilitators are those circumstances, facts, or influences that contribute to the application of such evidence in the policymaking process. Broadly, the barriers or facilitators entail; quality (relevance, complexity, packaging, rigor) and access (ease, timeliness, cost). These issues inform the current study in exploring the potential barriers to utilization of academic research evidence in the context of agricultural programming. The research questions addressed are provided hereunder while a detailed understanding of the barriers to utilization of research evidence is provided in the literature presented in the subsequent chapter.

1.3 Research Questions

1. What is the level of utilization of academic research evidence in agricultural programming
2. What is the nature and source of research evidences often used by the ministry in development of policies, strategies and plans
3. How accessible is the research evidence and what are the underlying factors
4. How do the users perceive the quality of research evidence and what are underlying factors?

2. Literature Review

A variety of literature from a theoretical and empirical orientation has explored low utilization of research evidence in different contexts and associate low utilization of research evidence with the quality attributes of the evidence and its transfer, dissemination from researchers to policymakers or access by the latter. These factors are commonly referred to as “*barriers*” the opposite of which are “*facilitators*”. Treadway (2015) defines barriers to the use of research evidence defined as those circumstances, facts, or influences that interfere with or inhibit the use of such evidence. The opposite of the barriers are facilitators.

Regarding quality of research evidence, the literature generally identify that policymakers want information that is accurate, timely, easily understood, concise, and free from bias. However, there is a general contention that research evidence is severely limited in quality, potential applicability and usefulness which constrain its utilization. This contention is supported by numerous studies that have linked underutilization of research evidence with factors like; sheer volume and complexity of available research data Newman (2012); the limited capacity of many policymaking entities to analyze and interpret multiple types of data, concerns about applicability of research evidence in specific contexts (Cameron et al., 2011) as well as usefulness of the evidence (Burchett, et al., 2012). Campbell et al. (2011) identify attributes of research evidence that limit its

usefulness. They observe that research evidence may bear content which may preclude their utility to policymakers. It could be lengthy and not written in tandem with the needs of policymakers in mind. In addition, the evidence could be untimely.

The significance of quality of research evidence is further emphasized in studies by Albert et al. (2007) in Mali; Nanyonga et al. (2012) Esaku (2016) in Uganda. Quality was in these studies perceived in terms of relevance, rigor and practicability in making informed management decisions each of which bears a significant influence on utilizations of research evidence. In view of AFIDEP (2015) and DFID (2014), quality research should add to existing knowledge, should be timely/relevant, should be trustworthy/credible and should be based on rigorous methodological approach in terms of Design and conduct. In other words, this definition opens insights into what researchers need to consider in generating research evidence in order to enhance its credibility. Relevance pertains the ability of research evidence to address the real pressing local needs of the people while practicality concerns the ability of the users to apply the research in solving the problems at hand. Similarly, the significance of quality can be traced from studies by Estabrooks et al. (2015) and Squires et al. (2011) that associates utilization of research evidence with the attitudes of the users towards quality of research evidence.

Regarding dissemination and access to research evidence, several studies such as Harvey et al (2010) and Cherney and Head (2015); Brown (2012) and Nelson et al. (2009) underscore the significance of access or dissemination on utilization of research evidences and provide understanding of how research evidence can effectively flow to consumers. The significance of access is further emphasized by Esaku (2016) in the context of research utilization in Uganda's health system provides reveals evidence. The studies identify the need for a multi-level set of considerations including; a greater skill in communicating and distilling the implications of their research on relevant topics; a greater skill of government agency leaders and key policy staff set research priorities, access and understand research findings; guidelines, standards and benchmarks to foster best practice in methodologies and collaborations; institutionalization of exchange mechanisms between researchers and policymakers; and political support to open circulation of evidence as well as investment in rigorous research programs.

Nelson et al. (2009) recommend the need to enhance policymakers' access to research evidence through use of a variety of dissemination methods including; interactive meetings, websites, professional conferences, and seminars. The significance of relationships between researchers and users is further emphasized by Lightowler & Knight (2013) and Esaku (2016). The latter underscores the significance of social capital, formal and informal interactions to utilization of research evidence in Uganda's health care systems. The author defines social capital as the sharing of information with others in the team, unit or department which is associated with a possible positive change in attitude which significantly influences research utilization. However, social capital was observed to bear no significant influence on research utilization in Canada (Squires et al., 2013; Estabrooks et al., 2015).

Other facilitators to promoting utilization of research evidence identified in literature include; improving the perceived credibility of the researchers (Boaz & Gough, 2014) which Koon, et al., (2012) refer to as “*embedded researchers*” considered to be more influential within an organization and are often perceived by policymakers as having greater trustworthiness and reputation. On the other hand, there is strong support for rigour and quality in enhancing utilization research evidence. It is generally observed that rigorous research findings on key issues are quite often not available to users. Creating such a research base takes time and resources. Even where reliable evidence has been documented, there is often a poor ‘fit’ between how this information has been assembled by researchers and the practical needs of policy and program managers (Fazekas 2012).

Overall, the literature highlighted in this section have provided understanding of research utilization and identified the potential barriers mostly in the context of other countries. Specifically in Uganda, research uptake has been explored in the context of decision making in the health service sector in a Local Government setting. Amidst, the declining performance of the Agricultural sector, the prevailing challenges and the reported limited uptake of research evidence in this sector, no empirical evidence exist on the perceptions of stakeholders on the quality of academic research evidence and their readiness to take up or utilize the evidence. Hence, the low uptake of academic research evidence in the highly significant agriculture sector remains unexplained. This constitutes the knowledge gap which the study sought to fill by exploring utilization of academic research evidence in agricultural programming with focus on the barriers and possible strategies.

3. Methodology

The study adopted a case study design based on the need to explore the questions of “what” and ‘how’ embedded in the research questions and as recommended by Creswell (2008) and Ragin (2008). In terms of methodological approach, the study utilized qualitative methods in collection and analysis of the data. This approach was appropriate for exploring the vast heterogeneity of attitudes and perceptions on quality of research as well as efficacy and commitment of the users which are likely to affect utilizations of research evidence.

In line with the qualitative approach to the study, data was collected through face-to-face interviews on a sample of 9 staff at the MAAIF. Specifically, the key informants included; 3 Directors and 8 Heads of Departments of Animal Resources; Crop Resources; Planning, Finance and Administration were targeted. The departments targeted are; Agricultural Planning, Animal Production & Marketing, Entomology, Crop Production & Marketing, Crop Protection, Farm Development, Finance & Administration, Fisheries Resources and Development, Fisheries Regulation Control Aquaculture Management and Development as well as Livestock Health and Entomology and Quality Assurance. This staffs were considered since they take center stage in implementing MAAIF’s mandate to formulate review and implement national

policies, plans, strategies, regulations and standards along the value chain of crops, livestock and fisheries (MAAIF, 2016).

The staff was selected using purposive sampling and theoretical sampling respectively. Saunders et al. (2012) and Creswell (2008) observe that purposive sampling allows selection of sample that is most suitable to answer the research question. Further, the authors argue that it is associated with a smaller sample yielding non-statistical findings which are not generalizable to the entire population. Notably, the interest was not to represent the population size since the findings would not bear statistical implication. On the other hand, theoretical sampling allowed selection of key informants until no new information was obtained or until saturation (less and less new information emerges).

Data was analyzed qualitatively using thematic and content analysis. The handwritten notes were transcribed, recurrent themes segmented and coded. The different data segments which also formed the key emerging issues were summarized and qualitatively enumerated. Consequently, general trends which leverage the key findings and conclusions in this study were derived. Besides, captivating sentiments which anchored some key findings were noted to further validate the emerging issues.

4. Findings and Discussions

Based on the analysis of the views of key informants, this section presents the findings. The section first profiles the nature and source of research evidence used in the ministry. The second part elicits the barriers to utilization of academic research evidence before exploring the readiness of the Ministry to utilize research evidence. The section concludes with a conceptualization of the barriers to utilizing academic research evidence

4.1 Profiling the nature and source of research evidence used in the ministry

The Ministry of Agriculture Animal Industry and Fisheries (MAAIF), deriving from the Constitution of the Republic of Uganda (1995), the Local Government Act (1997) and the Public Service Reform Programme is mandated to create an enabling environment in the Agricultural Sector. Consequently, the ministry, among the major functions, formulates, review and implement the national policies, plans, strategies, regulations and standards along the value chain of crops, Livestock and Fisheries. In line with this function, the ministry has overtime developed a variety of policies, plans, plans, regulations and standards. Among these include; the National Agricultural Policy, 2015; the National Agriculture Extension Policy 2016; the National Fertilizer Policy, the National Fertilizer Strategy and Investment Plan, the Agricultural Sector Development Strategy and Investment Plan 2010-2015; the National Seed Strategy 2014/15, the Agriculture Sector Strategic Plan, the Uganda Food and Nutritional Policy, the Plan for Modernization of Agriculture (PMA), the National Agriculture Advisory Services (NAADS), Codes of Ethics and Procedures for Registration and Accreditation of Agricultural Service Providers.

Such an institutional and regulatory framework has been developed based on research evidence but mainly research reports and policy briefs. Notably these are generated from non-academic research projects undertaken by its partner research organization. Such Organizations include; the National Agricultural Research Organization (NARO), the National Crop Resources Institute (NACRI); the National Livestock Research Institute (NALIRI), the National Fisheries Research Institute (NAFIRI) and the Economic Policy Research Center. Characteristically, research evidences from such organizations are more policy-oriented, of wide scope, rigorous and in-depth. In addition, the projects which generate such evidences are collaborative, jointly funded and implemented by the Ministry donor agencies. In addition, the ministry and other relevant stakeholders such as beneficiaries are often involved from project conceptualization, initiation, implementation and validation of the emerging evidences. This ensures relevance and credibility of the evidences which in view of the research users interviewed, is paramount to enhancing utilization of the evidences in the policy process. In attest of this the ministry shared a case and copy of the National Fertilizer Policy featuring how research conducted by the Economic Policy Research Centre (EPRC) leveraged development of the policy. To a minimal extent, the ministry utilizes internal Monitoring and Evaluation (M&E) reports generated from analysis of M&E data obtained from periodic monitoring of its projects within the Central and Local Government structures.

“The National Fertilizer Policy is one of MAAIF’s policies considered to have leveraged on scientific evidence. The policy was instituted to regulate fertilizer production, distribution and use by farmers in Uganda. This policy derived from EPRC’s research findings under a research project titled “Towards Uganda’s fertilizer Policy Regulations and Strategy funded” financed with a three-year grant from the Alliance for a Green Revolution in Africa (AGRA). The fundamental finding was that though significant efforts had over the years, been taken to regulate and control the use of Agricultural chemicals in Uganda through the Agriculture Chemical Act of 2006, there was no clearly articulated and documented policy framework to guide manufacture, distribution, sale and use of fertilizers. Findings of the study were used to develop and package message and materials that were used to raise awareness and influence various policy actors and the need for the fertilizer policy for Uganda. EPRC did not only supply such relevant and user friendly evidence but also took an extra mile to widely disseminate the evidences and consult with all relevant stakeholders about the policy proposal.”

In contrast, academic research evidences are hardly used in agricultural programming. The fundamental question was fate of how such research evidences can realize the much needed impact since they too, leverage to address development problems in context. The need for strategic measures to fast-track utilization of academic research evidences was further anchored as earlier set out to achieve in the study. Views pointed to a general concern that research evidences generated by academic institutions in form of research project reports, theses and dissertations

remain unexploited though they bear huge potential to inform agricultural development programming. In fact some views considered utilization of academic research evidences as a means of fostering efficiency in government operations.

“Talking about universities and other degree awarding institutions like UMI, they produce he volumes of data. Infact, many are public institutions which should be working to support ministries and other Government agencies with the much needed research evidence. If they played this role effectively, it could save us the huge amount of billions paid to consultants to conduct research studies to inform the ministries”

“If academic research evidence would be put to use, the ministry would surely reduce on consultancy costs. The ministry is compelled to incur huge costs of research consultancy because of the missing evidence which the academia can potentially provide. Surprisingly, in addition to consultancies Government further spends on financing students’ researches through scholarships. Part of the rationale is that when supported, students can undertake researches around the pertinent sector-specific development problems and provide practical, evidence-based solutions which would save on the cost of consultancies. Unfortunately this never happens issues. From another perspective, consider universities which are subsidized through budget support, but use funds to undertake research and generate evidences which hardly support government in turn. This is true for MAAIF which has overtime invested in supporting staff for graduate studies”

4.2 Barrier to utilization of academic research evidence

The question of limited utilization of academic research evidence was further explored from a dimension of identifying the barriers to utilization of academic research. Emerging issues pointed to limited awareness of, accessibility to and low quality of academic research evidences as the overarching barriers. These have been explored further in the subsequent subsection.

4.2.1 Awareness of academic research evidence

The entry point to this was a general theoretical notion that awareness is paramount to subsequent access and utilization of research evidence. The viewed share generally echoed limited awareness of the research evidences generated by academic institutions. The problem stems from limited involvement of the ministries right from; setting of the research agenda to strategic planning of the research function as well as development and implementation of specific research projects. Most informants observed that they are not aware of the research agenda which academic institutions are pursuing and the extent to which the themes are aligned with the ministry’s and sectors strategic objectives. In their view, such alignment is paramount to ensure that academic institutions undertake research and provide appropriate evidences to guide the ministry and sector interventions towards realizing the national development aspirations. They generally regard ministry stakeholders as inactive participants in

setting the research agenda of academic institutions. At project level, they could not tell whether academic researches respond to the ministry and sectors' challenges since they have minimal touch with such researches.

Overall, the ministry recognize that academic institutions undertake research which can potentially guide their programming but they remain unaware of because they are detached from the research process and products. Taking a case of research generated by Uganda Management Institute, most key informants seemed unaware of the research function of the institute but rather they considered it as a training Institute. They could not tell any institute's research product they have previously used in agricultural programming. Notably however, the institute has overtime, conducted researches developed policy briefs around land tenure systems, agrarian reforms and agricultural transformation among other areas. To affirm limited awareness of the researches undertake and evidences produced by academic institutions, key informants shared some sentiments.

"When you tell me that UMI undertakes research, it's a surprise. I have known the traditional UMI as a management training institution. As a ministry we can collaborate with UMI if we are aware of the research agenda and what evidence the institute can potentially contribute. We work closely with Makerere University through the relevant departments in the College of Agriculture and Environment Sciences".

"The issue of limited awareness of what academic institutions are doing in as far as research is concerned in real. Even when we talk about the public universities and institutions like UMI, I don't think the ministry is aware of what researches are being undertaken. Perhaps you would think that such information would be obtained from National Council for Science and Technology but I don't believe most researches are registered there. So the ever pending question is "what specific researches have academic institutions undertaken and what evidences are available?"

Further scan into the limited awareness of researches and research products of academic institutions revealed challenges of limited research engagement, networking and partnerships between academic research institutions and the ministry. Stakeholders observed that most academic institutions including UMI have no representation in their Sector Working Group and rarely are they consulted during the planning process. The key staff in the planning process at the ministry rarely gets to know or participate in research seminars and conferences which would offer an opportunity for networking and potential research partnerships. A few who rarely participate, or informally access useful research information hardly share such to feed into the decision making process. Overall, the ministry considered academic institutions to have not done enough to market their research agenda and research products. Consequently, *"a lot is done but little is known by the policy makers"* as one of the informants put it.

4.2.2 Accessibility to academic research evidence

Despite its significance, to promoting utilization of research evidence, findings pointed to limited accessibility to research evidence from academic institutions. This turned out fundamental constrain to utilization of research evidence from academic is institutions. While academic institutions are credited for generating substantive research evidence, a lot ends up in the shelves or repositories which are never accessed by the potential users in the ministry. Many academic institutions have minimal focus on publishing students' researches findings beyond submitting a thesis or dissertation. Even when such research outputs are posted websites of academic institutions, there is no linkage with the websites of ministries, the potential users in the context of this study. Research evidences published in journals repositories or academic institutions' websites are therefore hardly utilized. Even the little evidence published is hardly accessed due to technicalities involved in searching, unstable internet and the monetary cost attached to accessing some high quality publications.

The story is different with research evidences generated by non-academic research institutions like EPRC, NARO, NACRI, NALIRI which provides a good comparison factor. Essentially, such institutions undertake action and policy research with a strong focus on publication. As alluded in the previous sub-section, the potential users in the ministries are highly engaged from inception to validation which provides an opportunity for dissemination. And this partly explains why the ministry continues to rely on such institutions for research evidence to inform agricultural programming. In attest of the limited access to research evidence in academic institutions and the barriers at hand, some key informants had this to share;

"A lot of research is conducted in academic institutions but purposively for academic purposes with no focus on having the evidence reach the users. And to me this is a critical barrier. It is obvious that research in academic institutions is mainly undertaken by students whose primary interest is to fulfil the requirements for award of the degree. Publishing is a culture which is yet to take route in many academic institutions". I take a case on my own research which I conducted while a student. I came up with very interesting findings which I wrote in my dissertation and I believe no one in the ministry will ever have access to"

While in the context of academic institutions like Uganda Management Institute which trains working students, sharing research evidence by students at their institutions of work would be a possible way of reaching the evidences to the users, this is not happening. It is rear that a student will talk about their research findings or share their thesis, dissertation or research abstract with the key stakeholders in the ministry. This is one of the opportunities which interventions to promote utilization of research evidence from academic institutions are yet to exploit.

4.2.3 Quality of research evidence

Besides, awareness and access, the study explored quality of research evidence from a respondents' perspective. Generally, the quality of research evidence generated in academic institutions was perceived to be wanting in terms of relevance, scope, analysis rigor and packaging. The evidence packaged in voluminous reports and in a more scientific language since it is generated for academic purpose. For example you find PhD theses of 500 pages each lying on the shelves.

Characteristically, the problems investigated in academic researchers are not analysed comprehensively and the data obtained is shallow. This is partly because of the time and resource constraints. The shallowness of data implies that emerging findings can apply to smaller contexts such as individual organizations rather than policy and strategic programming nationwide. Besides, the methodologies employed sometimes do not conform with the acceptable standard procedures and ethical demands in data collection, analysis and management which puts to doubt the validity and credibility of the evidences generated. Regarding the reporting, findings are documented in a more scientific language which many of the potential users in the ministry cannot easily interpret. Minimal effort is taken to synthesize the issues and interpret them to the understanding of the practitioners. In addition, the evidences are embedded in highly voluminous academic reports which bore to read.

5. Conclusion

Overall, utilization of research evidence was reported to be constrained by limited awareness, access to and quality of research evidence. There is a huge potential for utilization of research evidence particularly from the perspective of the prevailing readiness to use academic research evidence. The barriers to utilization of academic research evidence can be conceptually summarized in figure below.

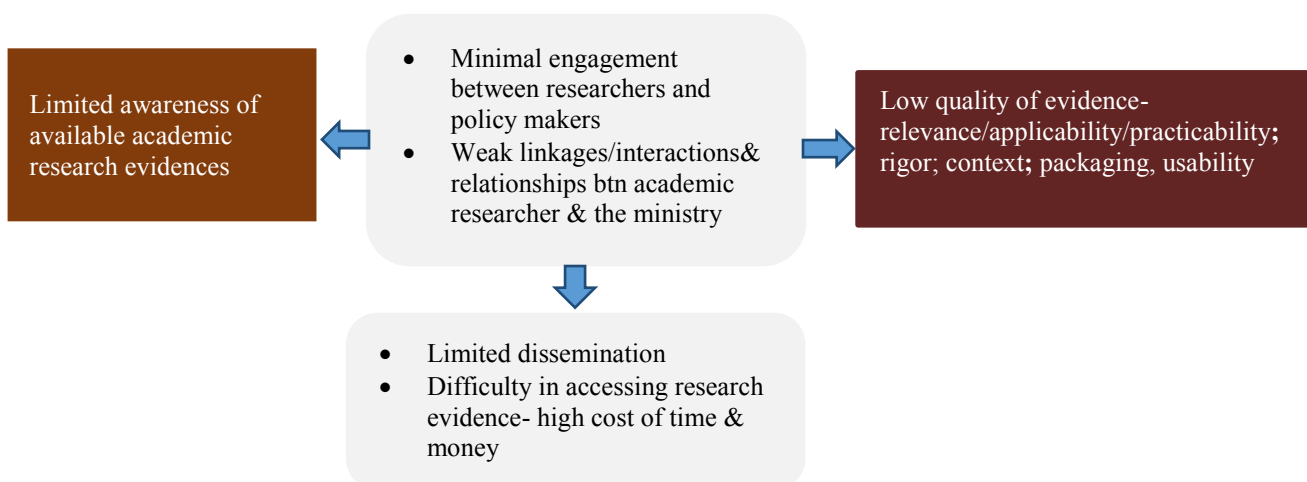


Figure 1: Conceptualizing the barriers to utilizing academic research evidence
(Source: Developed from analysis o qualitative views of key informants)

It emerged that the policy makers are not aware of the research agenda and research evidences available with academic institutions. This is mainly due to limited research engagements, networking and collaborations between academic institutions and ministries. Besides, academic institutions have not done enough to market their research agenda and products.

Arising from the limited research engagements, networks and collaboration with the ministries is the low quality of research evidence, observed in two dimensions. First, the relevance of academic research evidences to the real challenges in the ministry is questionable. Secondly, the researches lack rigor and most studies cover a narrow scope. Consequently, the evidence generated is quite often insufficient to guide agricultural programming.

On the other hand, limited research engagements, networks and collaboration with the ministries were associated with limited access to academic research evidences. Limited research engagements make it hard to share research evidences with the potential users. On the other hand, academic institutions are considered to pay more attention to generation of research evidence than dissemination to the potential users particularly the ministries and organizations in the scope and context of the studies. Notably, the publications in journals are highly scientific to use and difficult to access due to associated technicalities and cost involved particularly for the high quality research papers.

6. Recommendations

6.1 Build sustainable research linkages or networks between academic institutions and ministries

Academic institutions and other research organizations need to engage policy makers in setting the research agenda and initiating research projects. Building such linkages will necessitate MoUs between research institutions as the generator of evidences and the ministries as the consumers. Potential areas of collaboration include resource mobilization for mega research projects, undertaking collaborative researches, support towards research dissemination and utilization of findings. This would ensure that the research agenda particularly in academic institutions responds to the specific development issues and needs in context. Involving them at all stages right from development of the research agenda to design and implementation of specific research projects would not only enhance research relevance but also foster credibility acceptability, and uptake of research evidence. This draws from the finding that; quite often, the staff in the ministries who directly engage in designing implementation and monitoring of policies, strategies, programs and projects to the benefit of the country are left out in identifying the research problems that shape the research agenda and specific research projects. Consequently, the researchers conducted do not address the pertinent issues or development needs. The evidences remain too academic and suited to satisfy academic requirements.

6.2 Academic institutions need to strengthen research engagements with the ministries

The research networks alluded earlier will offer an opportunity for engagement. This study reveals that academic institutions can obtain membership in the Sector Working Groups and participate in the periodic Forum for Permanent Secretaries. The engagements should focus mainly identifying the pertinent research problems, tailoring research projects to the specific knowledge gaps in the ministries, disseminating research evidence and supporting adoption of research recommendations or utilization of the evidences in agricultural programming. The engagements can also be perceived an opportunity for marketing the research agenda and research products. This is much needed since the ministries report low awareness and appreciation of the research function of academic institutions.

6.3 Improve on the quality of research evidences

The ministry exhibited readiness to utilize research evidence which provides solutions to the challenges at hand. Specifically, quality improvement was found wanting in aspects of relevance of evidence in addressing the pertinent challenges, rigor, clarity and practicability. Besides, the evidences should be packaged as small and simple, and clear messages to the reading convenience and understanding of the potential users. Addressing these issues will be paramount to enhancing credibility and utility of academic research evidence. Research partnership and collaboration with the ministry and more reputable researchers was considered a potential strategy to improve quality of the research process and the end products which are finally disseminated. The ministries who are the potential users of the evidence should be central in setting the research agenda. On the other hand, managers of the research function academic institutions should ensure that that research projects respond to clearly identified and adequately contextualized problems.

6.4 Focus beyond the convectional research outputs

Academic institutions need to focus beyond the usual research products such as dissertations/thesis and research reports which end up in the shelves within the institutions' libraries and repositories. Beyond publishing the findings in academic journals, policy briefs should be appropriately packaged and shared with the relevant stakeholders for utilization in development programming. Experience indicates that those who would utilize the evidence are not ready to go through the difficulty and cost of searching evidences in universities or journals. Besides, even when accessed, it is quite often more scientific and difficult to work with. Providing easy access to well packaged research messages inform of policy briefs was identified as a viable strategy. Linking the websites of academic institutions to the ministries' and regular update of the websites with abstracts of available evidences was recommended to would keep the users abreast with the available research evidences.

6.5 Tailor the research evidences to the quality demands of the ministries

The ministry exhibit readiness to utilize research evidence which are; adequately contextualized, provide practical solutions, based on rigorous analysis, not too scientific and not too length. Besides, the evidence should cover a substantive scope and adequately provide practical solutions to the challenges at hand. Notably, academic institutions are disadvantages in terms of resources and time to generate high-quality evidence with such desirable attributes. Going forward, academic institutions will have to invest in research collaboration with research institutions which are better resourced and boost reputation not only in generating quality evidences but influencing ministries' programming. Research organizations like EPRC, NARO, ACODE and academic institutions like Makerere University are potential collaborators in this.

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