

Full Length Research Paper

Professional competence and extension service delivery in Thulamela Municipality, Limpopo Province, South Africa

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The purpose of this study was to assess the extension practitioners' demonstration of professional competencies in extension service delivery to small-holder farmers in the Thulamela municipality. The study employed a cross-sectional survey design. The assessment was conducted by soliciting the views of 80 crop and animal farmers in the municipality who were serviced by extension practitioners that had undergone professional capacity training since the implementation of the extension recovery plan (ERP). These farmers were purposely selected for this assessment. The findings showed that extension practitioners improved in their demonstration of professionalism in the eight key areas of service delivery investigated following the capacity training they had received. Extension practitioners' professionalism in extension service delivery significantly improved following capacity training in selected competency areas since the implementation of the extension recovery plan. The training provided since the implementation of the ERP appears to be making a positive contribution to improving the professionalism of extension practitioners' delivery of extension services to small-holder farmers in the area where the study was conducted and, therefore, in Limpopo province. The significance of the findings in this study is that it adds to the existing literature on the positive influence of training on performance in the job situation.

Key words: Capacity training, competence, competency demonstration, extension recovery plan, professionalism, norms and standards.

INTRODUCTION

Professionalism in the field of agricultural extension has garnered significant research attention worldwide since the early 1960s. This focus stems from the recognition of

the vital role played by the professional competence of field-level Extension practitioners in shaping the effectiveness of the Extension organizations they

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represent. The recent Scoping Study of 15 Extension Professional Competencies in the United States underscores the importance of Extension professionalism in delivering effective customer service (Donaldson and Vaughan, 2022).

Professionalism in Extension practice necessitates that the extension agent is proficient in their work. To be competent—to achieve competency, which is one's actual performance in a given situation—one requires competence, the potential ability and/or capability to function in each situation (Schroeder, 2008). The relationship between competence and job performance has been studied across various disciplines, including Public Health (Hasson and Arnetz, 2008), Consumer companies (Song, 2008), Education (Cavallo and Brienza, 2001), and Agricultural extension (Irani et al., 2004). Parry's (1996) definition of competence appears to be the most widely accepted, viewing it as a cluster of related knowledge, skills, and attitudes that significantly impact one's job, correlates with on-the-job performance, can be measured against well-accepted standards, and can be improved through training and development.

The professionalism and competency of Extension practitioners in the job situation became crucial issues in South Africa in the new, integrated national extension service after 1994 when the country emerged from its apartheid past.

The onset of the new political dispensation in South Africa also brought heightened demands for quality agricultural extension services. The South African government responded to these competency and quality challenges by implementing measures to professionalize the extension service. One such initiative was the introduction of the Extension Recovery Plan (ERP) in 2008/2009 (DAFF, 2011) to revitalize public extension services and provide quality services to clients. To achieve the goals of the ERP, five strategies, or pillars, were implemented, including the promotion of professionalism, improvement of the image of extension, and reskilling and reorientation of extension.

Notwithstanding the ERP strategies, the effectiveness of extension services ultimately hinges on the professional qualities of the practitioners on the ground who deliver services to farmers. A Google Scholar search for peer-reviewed papers published in the South African Journal of Agricultural Extension between 2009 and 2016 and in the Proceedings of the South African Society for Agricultural Extension for the same period on the influence of the ERP in enhancing Extension practitioners' service delivery performance based on their professional competencies in the field, as perceived by the farmers they serve, yielded no results. This absence of empirical studies on the issue creates a knowledge gap, making it challenging for policymakers to assess the impact of the investment in the ERP on improving Extension practitioners' professional qualities and service delivery. This study was motivated by and aimed at addressing this knowledge gap.

Research question and hypothesis

The following research question and hypothesis were addressed to assess the influence of the ERP on Extension practitioners' professional competencies in extension service delivery in the Thulamela municipality:

How have farmers' views on public extension practitioners' demonstration of professionalism in the delivery of extension service improved following capacity training received in selected competence areas in the implementation of ERP (2008/2009)? Agents' professionalism in extension service delivery has not significantly improved following capacity training received in selected competence areas in the implementation of ERP (2008/2009).

METHODOLOGY

The study was conducted within selected wards in the Thulamela Local Municipality, where all the respondents needed for the study were located. The municipality is situated in the easternmost part of the Limpopo Province, under the Vhembe District, South Africa. The wards include Tshiombo, Matangari, Mukula, Tshidimbini, Muangawandodzi, Mukondeneni, Makwarela, Phiphidi, Vhudimbilu, Lwamondo, Khumbe, and Tshikonelo.

Study population, design, sampling, and sample size

The study population consisted of all 135 crop and livestock farmers in Thulamela Municipality who were serviced by public extension practitioners. A cross-sectional survey design was employed. According to Isaac and Michael (1981) and Smith (1983), for populations of 125 and 150, the recommended sample sizes are 96 and 110, respectively, at 5% precision. The average population of 137 provides an average sample size of 103. Since our study population of 135 falls between 125 and 150, the researchers opted for an average sample size of 103. However, due to logistical problems and the non-availability of farmers, 80 farmers were registered for the study. All 80 crop and livestock farmers in Thulamela Municipality who were serviced by public extension practitioners were, therefore, purposefully selected for the survey.

Data collection

The data were collected from April 26, 2017, to May 11, 2017, through face-to-face interviews using a semi-structured questionnaire. The information gathered from the 80 farmers included their perspectives on Extension practitioners' performance in farmers' project management, client/farmer orientation, communication with farmers, and commitment to the delivery of service to farmers. Respondents were asked to express their views on the issues mentioned in the previous paragraph, specifically whether extension practitioners providing services to them demonstrated any change in professionalism in service delivery before 2009 and during the period of 2009-2016. The latter timeframe corresponds to when practitioners received capacity training in selected competence areas as part of the implementation of the ERP (2008/2009).

Reliability of the measuring instrument

The reliability of the survey measuring instrument used in this study

was assessed using the Cronbach alpha coefficient, a widely used indicator of internal consistency (Pallant, 2007). An alpha coefficient value of 0.7 is generally considered acceptable, while values exceeding 0.7 indicate high reliability (DeVellis, 2003 in Pallant, 2007). However, Pallant (2007: 98) notes that scale items fewer than 10 may fail to produce decent values; in such cases, the mean inter-item correlation value is reported, and values as low as 0.6 still suggest strong relationships among items.

In this study, although the Cronbach's alpha for the improvement in agents' professionalism regarding service delivery was low (0.448), the inter-item correlation matrix showed positive values. This suggests that all eight scale items are measuring the same underlying characteristic, which is the essence of reliability measurement.

Measurement of variables

Professional qualities were used in this study to include field-level extension practitioners' competencies in selected areas specified in the Norms and Standards (DoA, 2005) acquired through capacity training on the job for application in the work environment. Key variables in the study were measured as follows:

Professionalism in extension service delivery and professionalism index calculation

The variable "capacity training" in the research hypothesis was operationalized as follows: (1 = received training between 2009-2016 in one or more areas of competence as prescribed in the Norms and Standards (DoA, 2005); 0 = has not received training (2009-2016) in any of the areas of competence as prescribed by Norms and Standards (DoA, 2005) during this period. Professionalism (1 = high professionalism; 0 = low professionalism) and following Kerr et al. (1977) and Bartol (1979), was conceptualized as a multidimensional construct on an index based on eight variables of selected competency areas prescribed by the Norms and Standards (DoA, 2005). These areas include project management (planning: three sub variables: Extension practitioner always helps me write a plan showing when farm activities will be started and be completed; Extension practitioner always helps to write my planned expenditure (costs) required to achieve objectives; Extension practitioner always helps me to identify people who will help achieve my set objectives); client/farmer orientation (one sub-variable: Extension practitioner always asks how my family and I are doing when he/she visits my farm), interpersonal communication (two sub-variables: in our meetings, the Extension practitioner always summarizes what I say to show that he/she is listening to what I am saying; Extension practitioner always nods his/her head to approve of what I am saying and to show he/she listening to me); commitment to service delivery: (two sub-variables: Extension practitioner always delivers on promises about my farm management issues; when the Extension practitioner does not have the information or solution to my farm management problem, he/she tells me he/she will find out and come back to you when we meet again. A respondent's mean score for the Extension practitioner on all eight variables was compared with the total mean score (professionalism index) and standard deviation for all respondents on these eight variables. Any respondent mean score equal to or higher than the total mean score judges the Extension practitioner as having high professional qualities regarding service delivery (high professionalism). Any respondent mean score less than the total mean score for all respondents judges the Extension practitioner as having low professional qualities regarding service delivery (low professionalism).

Data analysis

The data were analyzed using the Statistical Package for the Social Sciences (SPSS) program. Both descriptive and inferential analyses were applied to the collected data. Descriptive analysis, including percentages and charts, was utilized to address the research question and depict respondents' views on practitioners' improvement in demonstrating professionalism in extension service delivery. For testing the research hypothesis, the Z test was employed. The application of the Z test is described subsequently.

Hypothesis

The hypothesis for this study posited that practitioners' professionalism in extension service delivery has not significantly improved following capacity training received in selected competency areas. The researcher aimed to compare and analyze differences in two populations of extension practitioners, those who received capacity training and those who did not, concerning a categorical characteristic. Specifically, the focus was on whether capacity training leads to improvement in professionalism in extension service delivery.

The objective was to determine whether there is any difference in the proportions of successes in the two groups, utilizing a two-tailed test. In this context, "success" refers to the improvement in professionalism for practitioners who received capacity training compared to those who did not. The assessment of differences in knowledge between the two proportions was based on independent samples. The test procedure used a test statistic Z, which is approximated by a standard normal distribution, as recommended by Bereson and Levine (1979).

The Z statistic is given by:

$$Z = \frac{P_1 - P_2}{\sqrt{P_1(1-P_1)/n_1 + P_2(1-P_2)/n_2}} \quad (1)$$

With

$$P_1 = X_1/n_1$$

$$P_2 = X_2/n_2$$

Where, P_1 = Sample proportion of successes (that is, serviced by practitioners who received capacity training in population 1, X_1 = Number of successes in sample 1 (received capacity training and judged by respondents as professional) (= 52), n_1 = Number of respondents taken from population 1 (received capacity training) (= 54), P_2 = Sample proportion of successes (that is, serviced by practitioners who did not receive capacity training in population 2, X_2 = Number of successes in sample 2 (did not receive capacity training and judged by respondents as professional) (= 0), n_2 = Number of respondents taken from population 2 (serviced by practitioners who did not receive capacity training) (= 25), To test whether the null hypothesis of no difference in the proportions of the two independent populations (that is, received capacity training and did not receive capacity training) are the same with regard to demonstration of professionalism in extension service delivery at the level of significance .05 with a critical value of ± 1.96 :

$$H_0: p_1 = p_2$$

The alternative hypothesis is that the two population proportions are not the same:

$$H_1: p_1 \neq p_2$$

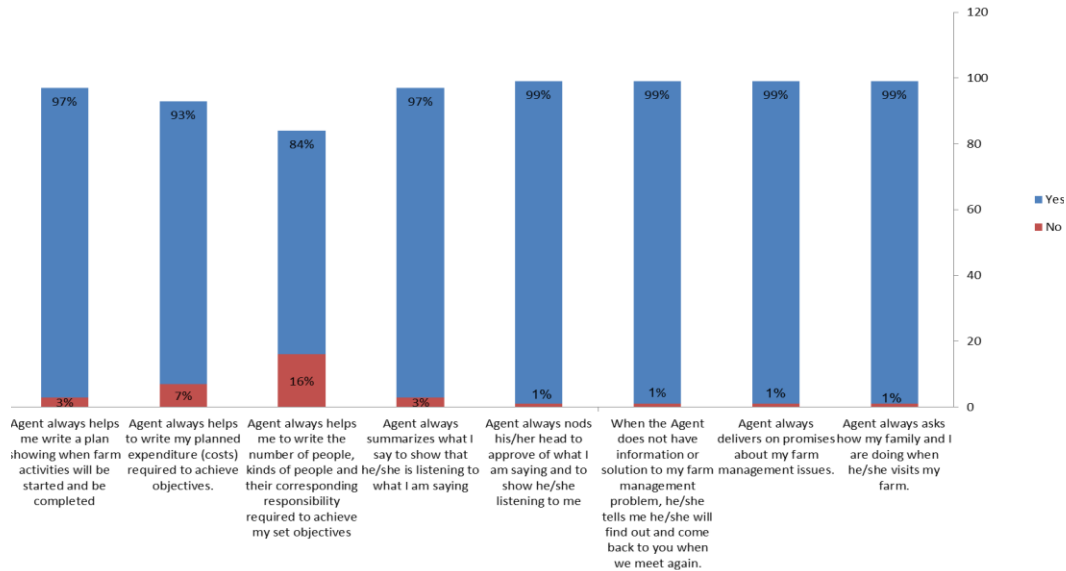


Figure 1. Extension practitioners’ demonstration of professionalism in service delivery.

RESULTS

Extension practitioners’ demonstration of professionalism in service delivery

The study measured the practitioners’ professionalism based on eight skill items listed in the Norms and Standards (DoA, 2005). Respondents were required to evaluate their Extension practitioners based on their demonstration of professional conduct in delivering extension services to them. In this study, professionalism was measured based on the capacity training Extension practitioners received in the period 2009-2016. The findings, based on the opinions of respondents regarding Extension practitioners’ demonstration of professionalism, are presented in Figure 1. The results indicate that all Extension practitioners were reported to demonstrate professionalism by most respondents (93-99%) in all areas investigated.

The results of the hypothesis test set up to assess the influence of Extension practitioners’ capacity training on their demonstration of professionalism in extension service delivery is presented in this part of the study.

Capacity training received in selected competency areas and influence on extension practitioners’ professionalism in extension service delivery

The hypothesis tested in this study posited that Extension practitioners’ professionalism in extension service delivery has not significantly improved following capacity training in selected competency areas. To test the null hypothesis, which assumes no difference in the

proportions of the two independent populations (that is, those receiving capacity training and those not receiving capacity training) regarding the demonstration of professionalism in extension service delivery, a test procedure with a test statistic Z, approximated by a standard normal distribution, was employed, as recommended by Bereson and Levine (1979).

The level of significance chosen was 0.05, with a critical value of ±1.96. The test result yielded a Z value of 36.9. Since the Z value is larger than 1.96 at a 0.05 level of probability, the null hypothesis was rejected, and the alternative hypothesis was accepted. This finding implies that Extension practitioners who received capacity training in areas such as project management, client/farmer orientation, interpersonal communication, and commitment to service delivery demonstrated higher levels of professionalism in interacting with farmers during the course of their extension work compared to those who did not receive such training. The results of the study are discussed in the following paragraphs.

DISCUSSION

It is acknowledged among human resource practitioners that one of the most frequently encountered human capital development interventions is training (Truitt, 2011, citing Campbell and Kuncel, 2001). The National Department of Agriculture in South Africa (DoA, 2005) has, therefore, identified a range of competencies, which could be considered soft skills, requiring Extension practitioners to be proficient in them for extension service delivery to demonstrate professionalism. Extension practitioners are required to undergo capacity training in

these soft skills.

There appears to be no empirical assessments of the issue of capacity training received by Extension practitioners in the selected competency areas investigated in our study and its influence on Extension practitioners' professionalism in extension service delivery since the introduction of the Extension Recovery Plan (ERP). The lack of empirical evidence to inform Extension managers on the effect of the training received since the implementation of the ERP on improving Extension practitioners' professional conduct in agricultural extension service delivery motivated this study.

The study question discussed here is whether farmers' views on public extension practitioners' demonstration of professionalism in the delivery of extension service have improved following capacity training received in selected competence areas in the implementation of the ERP (2008/2009).

Respondents' opinions on improvements in extension practitioners' demonstration of professionalism in the delivery of extension service

The variables on which respondents were asked to provide their views about extension practitioners who provide extension services to them, and whether they had demonstrated any improvement in professionalism in service delivery before 2009 and after 2009-2016, include project management (planning), client/farmer orientation, interpersonal communication, and commitment to service delivery. The period 2009-2016 was when practitioners received capacity training in selected competence areas since the implementation of the Extension Recovery Plan (ERP) in 2008/2009.

Project management (planning)

Conventional wisdom suggests that planning increases a project's likelihood of success, while a lack of it raises the risk of failure. Similar to managing any project, farming activities require planning. The literature on the subject indicates a strong link between planning and project success (Serrador, 2013). It is, therefore, appropriate for public extension practitioners to provide project management support to farmers.

According to the Project Management Institute (PMI) (2008), various planning activities are essential in different segments of project management. These include plan development in project integration management, scope planning in scope management, activity definition and sequencing in project time management, resource planning in cost management, quality planning in quality management, organizational planning in human resource management, communication planning in communication

management, and procurement planning in procurement management. A farm project must have a definite plan of work as an outline of procedures arranged to enable the efficient implementation of the entire project.

The farm project activities consist of specific tasks performed by combining farm resources, including human and material resources necessary for carrying out project activities such as finance, land, equipment, personnel, etc.

The first of the three planning sub-variables addressed in this study is "Extension practitioner always helps me write a plan showing when farm activities will be started and completed." This sub-variable can be situated under the activity definition and sequencing of project time management. Activity definition involves listing the activities the farmer performs, while the start and finish dates of activities, known as activity sequencing, contribute to the project schedule in project management (PMI, 2008). Activity sequencing forms a network diagram that provides a schematic display of activities and logical relationships (dependencies) among the activities and project critical paths to inform the farmer of activities that may cause delays, such as harvesting time. The start and finish dates of activities and their durations in the plan can be shown schematically on a Gantt chart.

The second of the three planning sub-variables addressed in this study is "extension practitioner always helps to write my planned expenditure (costs) required to achieve objectives." This sub-variable falls under resource planning in project cost management. At this stage, the farmer makes cost estimates for each activity based on the types and quantities of resources needed, such as the number of labourers required for tasks like weeding or harvesting.

The third planning sub-variable discussed in this study is "Extension practitioner always helps me to identify people who will help achieve my set objectives." This sub-variable also falls under the activity definition of project time management. During this stage, when activities falling within the project scope are identified, the required personnel, such as laborers to be hired for specific activities like weeding or harvesting, are also identified.

Khalil et al. (2009) reported that program planning is one of the key competencies, among others, significantly predicting Extension agents' performance in Yemen. The findings in our study (Figure 1) on the extension practitioners' support for farmers' farm/project planning activities align with the literature, emphasizing its essential role in the development of farmers.

Client/farmer orientation

The sub-variable of client/farmer orientation addressed in our study focused on whether the Extension practitioner, as a professional, always asks how the farmer and his

family are doing when visiting the farmer's farm. The findings in our study (Figure 1) indicate that almost all respondents (99%) had positive feedback about the extension practitioner on this issue.

Field-level public extension practitioners typically work in communities with farmers over an extended period, fostering personal relationships with the farmers they serve. Establishing a client or farmer orientation becomes crucial to be perceived as individuals genuinely interested in the well-being of the farmers and dedicated to helping farming families improve their enterprises. Inquiring about how the farmer and his/her family are doing goes beyond delivering farming management support; it signifies a genuine interest in the welfare of the farmers and their families as human beings.

In the Norms and Standards for Extension and Advisory Services, the South African Department of Agriculture (DoA) (2005) specifies that the clients of agricultural extension and advisory services include subsistence and household food producers, small-scale farmers, land and agrarian reform beneficiaries, and large-scale commercial farmers. The DoA (2005:7) further emphasizes that one of the areas in which a provider of extension and advisory services in South Africa must be competent is client orientation and customer focus. This competency is elaborated as follows: "They must be willing and able to deliver services effectively and efficiently in order to put the spirit of customer service (Batho-Pele) into practice (good interpersonal relations are a requirement)." Batho-Pele, a Sesotho word meaning 'people first,' was launched by the South African government in 1997 to transform the public service, and one of its values is "caring for the public we serve - our customers" (Department of Public Service and Administration, 1997). The concepts of caring for people and having good interpersonal relations are interconnected, prompting our investigation into the Extension practitioners' emotional relationship with farming families beyond technical support in farm management. The terms "clients," "customers," and phrases like "client orientation" and "customer focus" are prominent in the delivery of public services to the public in South Africa who use these services. The question arises: How does the use of these concepts and phrases inspire the delivery of professional public extension services to farmers?

In discussing who is a professional, Hurd (1967) argued that the farmer is neither a customer nor a client of the Extension agent, specifically referring to the field-level Extension practitioner working for a public extension organization that provides free extension services to farmers. Hurd (1967) provided the following reasons for this assertion: a customer determines his/her own needs and shops around to satisfy those needs, and a client is an individual who should or must accede to professional judgment or advice.

The question arises: Do the so-called 'customers' and

'clients,' aside from the commercial farmers, who avail themselves of the free public extension service, have the means to shop around for an extension service that truly serves their needs, or are they confined to the free public extension service that may not be meeting their needs? Based on historical evidence, the writer's response to the first question is 'no,' and the response to the second statement is 'yes.'

In the private sector, consumers are generally defined as individuals or businesses that use goods and services, while customers buy goods and services (Kenton, 2023; Indeed Editorial, 2022). Furthermore, the term "client" is typically used for people who buy professional services from a business or company to satisfy a need or solve a problem. Clients may maintain long-term relationships with the businesses they buy from, in contrast to customers whose engagements with sellers conclude once they receive the goods or services they want to buy. The term 'customer orientation' refers to the degree to which salespeople practice marketing concepts by helping customers make purchase decisions that satisfy their needs (Saxe and Weitz, 1982). These concepts and phrases are more fitting in the private sector than in the public sector.

At best, farmers can be labelled as consumers of free public extension services. Hurd's (1967) comments and criticism of the use of these concepts and phrases in the public, free extension scenario, in the writer's view, are justified. These concepts and phrases do not inspire the delivery of professional, public extension services to farmers as they might in the private sector.

To practice customer orientation, businesses aim to understand their customers (Gil et al., 2005). Research in the private sector demonstrates that the level of customer orientation among sales employees positively correlates with customers' perception of the authenticity of sales employees, thereby enhancing customer loyalty (Yi et al., 2022).

Additionally, literature indicates that customers' emotional reactions to a salesperson's perceived kindness, friendliness, or passion for service excellence signify authenticity and contribute to profit generation and organizational survival (Southworth and Ha-Brookshire, 2016).

The public extension organization can draw insights from these findings in the private sector to recognize that farmers, as consumers (rather than customers or clients) of free public extension services, value the friendliness and caring attitude of the Extension practitioner. This fosters trust in the Extension practitioner, leading farmers to adopt the recommended farm management practices. As the Extension organization embraces and exhibits 'customer orientation' and 'customer focus,' it encourages Extension practitioners to adhere to high ethical and professional standards by consistently displaying a courteous and helpful attitude when interacting with farmers. This aligns with key elements of customer focus

in the business sector for 2023 and beyond (Mutabazi, 2023), and the researcher believes that this finding can benefit public extension.

The literature further indicates that 'customer orientation' is among the core competencies positively related to extension practitioners' performance in Korea (Chae et al., 2014). These current findings in both the private and public sectors demonstrate the positive influence of client orientation and professional conduct on service delivery. The findings on these issues suggest that the professional conduct of the Extension practitioners in our study aligns with expectations based on international standards.

Interpersonal communication

The study investigated respondents' views on the Extension practitioners' interpersonal communication with farmers concerning their demonstration of professional conduct. This examination was based on two sub-variables: in our meetings, the Extension practitioner always summarizes what was said to show that he/she is listening to what I am saying; Extension practitioner always nods his/her head to approve of what I am saying and to show he/she is listening to me. Interpersonal communication, which involves person-to-person exchange in face-to-face interaction, encompasses both verbal and non-verbal communication skills. The two sub-variables explored in this study relate to the interpersonal skill of active listening, a critical component of interpersonal communication (Srivastava and Yadav, 2017).

Individual contacts, where the Extension practitioner interacts with a farmer in a face-to-face situation during farm or home visits, represent a common teaching method in Extension work. Interpersonal communication is crucial in every aspect of human life and endeavour, including the relationship between Extension practitioners and the farmers they assist with farm management innovations. Face-to-face communication enables both parties to send and receive messages, establish mutual relationships, understand each other, and coordinate their goals.

The literature documents a positive relationship between interpersonal communication and professionalism (Dart et al., 2019). The importance of the customer's impression of the sales agent is a key factor in the success or failure of both service and manufacturing firms (Garavan, 1997). These findings support the Extension practitioners' practice of verbal, non-verbal communication, as well as listening skills in their professional interactions with farmers. The study's results indicate that almost all respondents (97-99%) perceived that the Extension practitioners demonstrated professional conduct in interpersonal communications by using verbal, non-verbal, and active listening skills.

Interpersonal communication has been identified as a key element among four themes in conceptualizing a definition of professionalism in the field of nutrition and dietetics (Dart et al., 2019). Furthermore, the finding in a study among Korean agricultural extension agents by Chae et al. (2014) that interpersonal skills were among the core competencies positively related to agents' performance reinforces the importance of the finding that Extension practitioners use interpersonal communication and demonstrate professionalism in their work with farmers. This aligns well with the high standard of Extension practice provided to the farmers in the study.

Commitment to service delivery

To address the criticism regarding the perceived lack of professionalism in the conduct of Extension practitioners, pillar two of the ERP was implemented to promote professionalism and improve the image of Extension practice. This pillar focused on the affiliation of Extension practitioners with Agricultural Extension professional bodies, their active participation in these bodies, and the hosting of extension conferences by provinces (DoA, 2005). This study, however, took the position that, while the above-mentioned initiatives contribute to a professional image, the true test lies in the Extension practitioners' commitment to demonstrating professionalism in their service delivery to farmers.

A definition of the concept "professionalism" from the 1960s, fitting this discussion, emphasizes the extent to which one is committed to their profession, with elements including dedication and social obligation (Frow, 2007 citing Hall, 1968). A professional tends to be highly committed to performing an excellent job for clients (Frow, 2007 citing Nelson, 1988). "Commitment" is defined as the willingness to give time and energy to something believed in or a promise to do something, representing an intellectual or emotional binding to a course of action (Wehmeir, 1999). In this study, the concept of service delivery, defined by Fox and Meyer (1995) as the provision of public activities, benefits, or satisfactions, was considered in relation to the commitment of Extension practitioners to professional agricultural extension service delivery.

Given the significant relationship between commitment and performance, (Akintayo, 2010; Tumwesigye, 2010) and the focus on commitment to professional service delivery in this study, farmer respondents were asked to indicate their views on two sub-variables as indicators of the Extension practitioner's commitment to professional agricultural extension service delivery: Extension practitioner always delivers on promises about my farm management issues; when the Extension practitioner does not have the information or solution to my farm management problem, he/she tells me he/she will find out and come back to me when we meet again. The

responses in our study indicated that almost all respondents (99%) believed that the Extension practitioners who serve them are committed to demonstrating professionalism in delivering agricultural extension service. These findings align with expected behaviors of professionally committed individuals across various fields (Frow, 2007 citing Nelson, 1988; Emami and Darabi, 2013; Mahajan and Kauts, 2022; Zhao, 2023).

Therefore, based on the existing literature, our study's examination and findings on the Extension practitioners' commitment to professional service delivery suggest that they are working according to international standards and are contributing to the development of farmers.

Conclusion

Overall, the literature generally acknowledges that training has a positive impact on employee proficiency and the demonstration of professionalism in the work situation. In an effort to enhance the effectiveness of the amalgamated public extension service in South Africa after 1994, the National Department of Agriculture implemented the Extension Recovery Plan (ERP). One of the aims of introducing the ERP was to improve the low professional conduct of Extension practitioners regarding service delivery to farmers, many of whom were absorbed into the new Extension service from the former homeland areas of South Africa.

The findings from this study suggest that there is evidence to indicate that farmers believe Extension practitioners now demonstrate more professional conduct in agricultural extension service delivery since receiving capacity training. The research question for the study is thus answered in this regard. Furthermore, the hypothesis test for the study also showed that Extension practitioners who underwent capacity training demonstrate significantly improved levels of professionalism in interacting with farmers in the conduct of their extension work compared to those who did not.

Based on the study findings, it can be concluded that the training provided since the implementation of the ERP appears to be making a positive contribution to improving the professionalism with which Extension practitioners deliver public agricultural extension to small-holder farmers in the area where the study was conducted and, therefore, in Limpopo province.

Recommendations

Based on the evidence from the findings in this study, it is recommended that the Department of Agriculture, Forestry, and Fisheries (DAFF) should allocate additional funds for capacity training in the areas identified in the Norms and Standards. It is suggested that attendance at such training sessions be made mandatory for field-level

extension practitioners, and this requirement could potentially be linked to promotions to incentivize practitioners to attend. The establishment of an empirical link between professional competency and job performance suggests that employers should prioritize the training of extension practitioners to enhance professionalism in service delivery to farmers.

Given the widespread issue of poor quality and ineffective public agricultural extension services, especially in developing countries, similar to the situation in South Africa, extension managers elsewhere could enhance the professionalism of their field-level extension practitioners through training in identified soft skills necessary to achieve the objectives of their extension organizations.

Further research

There is consistency in the literature indicating that planning contributes 33 and 35% to a project's efficiency and success, respectively. However, the literature does not seem to provide a definitive indication of the level of planning effort that correlates with a project's success (Serrador, 2013). It may be worthwhile for future studies to investigate this issue regarding Extension practitioners' level of planning effort in farmers' projects for the efficiency and success of farming enterprises.

In this study, commitment to professional agricultural extension service delivery was assessed from the perspective of the farmer respondents. It may be useful to assess Extension practitioners' commitment to the extension organization so that strategies can be put in place to improve their commitment and, consequently, their performance.

The positive report from farmers in this study regarding improved professional service delivery by Extension practitioners may be further corroborated by setting up a future experimental approach that seeks to relate it to farmers' improved crop production knowledge, for example, and even their crop yields, using counterfactual analysis.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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REFERENCES

Akintayo D (2010). Work-family role conflict and organizational

- commitment among industrial workers in Nigeria. *Journal of Counselling Psychology* 2(1):1-8. https://www.researchgate.net/publication/268427843_Work-family_role_conflict_and_organizational_commitment_among_industrial_workers_in_Nigeria.
- Bartol KM (1979). Professionalism as a predictor of organizational commitment, role stress, and turnover: A multidimensional approach. *Academy of Management Journal* 22(4):815-821. <https://journals.aom.org/doi/abs/10.5465/255817>
- Bereson ML, Levine DM (1979). *Basic Business Statistics, Concepts and Applications*, 6th edition. New Jersey: Prentice-Hall International, Inc.
- Cavallo C, Brienza M (2001). Emotional competence and leadership excellence at Johnson and Johnson: The emotional intelligence and leadership study. *Consortium for Research on Emotional Intelligence in Organizations* 1:12. https://www.eiconsortium.org/reports/jj_ei_study.html
- Chae SH, Kim YD, Lim HJ (2014). Analysis of the association between competence and performance-focusing on farmers and extension workers. *American Journal of Agricultural and Biological Science* 9(1):101-108.
- Department of Agriculture, Forestry and Fisheries (DAFF) (2011). *National Framework for Extension Recovery Plan*. Department of Agriculture, Forestry and Fisheries, Communication Services, Pretoria. chrome-extension://efaidnbmnnnibpcajpcglclefndmkaj/https://www.nda.agric.za/daoDev/sideMenu/educationAndTraining/framework_recovery%20plan_web.pdf
- Dart J, McCall L, Ash S, Blair M (2019). Toward a Global Definition of Professionalism for Nutrition and Dietetics Education: A Systematic Review of the Literature. *Journal of the Academy of Nutrition and Dietetics* 119(6):957-971.
- Department of Agriculture (DoA) (2005). *Norms and Standards for Extension and Advisory Services in Agriculture*. Pretoria: Scientific Research and Development.
- Department of Public Service and Administration (1997). *Batho Pele- "People First: White paper on transforming public service delivery*. Chrome [extension://efaidnbmnnnibpcajpcglclefndmkaj/https://www.dpsa.gov.za/dpsa2g/documents/acts®ulations/frameworks/white-papers/transform.pdf](chrome-extension://efaidnbmnnnibpcajpcglclefndmkaj/https://www.dpsa.gov.za/dpsa2g/documents/acts®ulations/frameworks/white-papers/transform.pdf).
- Donaldson JL, Vaughan R (2022). A Scoping Study of United States Extension Professional Competencies. *Journal of Human Sciences and Extension* 10(1):1-17.
- Emami M, Darabi M (2013). *Antecedents of Professional Commitment*. Working Paper.
- Fox W, Meyer IH (1995). *Public Administration Dictionary*. Eppindust: Juta.
- Frow P (2007). The meaning of commitment in professional service relationships: a study of the meaning of commitment used by lawyers and their clients. *Journal of Marketing Management* 23(3-4):243-265.
- Garavan T (1997). *Interpersonal Skills Training for Quality Service Interactions*. *Industrial and Commercial Training* 29(3):70-77.
- Gil SI, Berenguer CG, Cervera TA, Moliner VB (2005). Relationships among customer orientation, service orientation and job satisfaction in financial services. *International Journal of Service Industry and Management* 16(5):497-525.
- Hasson H, Arnetz JE (2008). Nursing staff competence, work strain, stress and satisfaction in elderly care: a comparison of home-based care and nursing homes. *Journal of Clinical Nursing* 17(4):468-481.
- Hurd HG (1967). What is a professional. *Journal of Cooperative Extension* 5(2):77-84. <https://archives.joe.org/joe/1967summer/1967-2-a1.pdf>
- Irani TA, Gregg JA, Telg R (2004). Choosing to use the web: Comparing early and late respondents to an online web-based survey designed to assess IT computer skills perceptions of county extension agents. *Journal of Southern Agricultural Education Research* 54(1):168-179.
- Isaac S, Michael WB (1981). *Handbook in Research and Evaluation*. San Diego: EdITS Publishers.
- Kenton W (2023). *Customer: Definition and How to Study Their Behavior for Marketing*. <https://www.investopedia.com/terms/c/customer.asp>
- Kerr S, Von Glinow MA, Schriesheim J (1977). Issues in the study of "professionals" in organizations: The case of scientists and engineers. *Organizational Behaviour and Human Performance* 18(2):329-345.
- Khalil AHO, Ismail M, Suandi T, Silong AD (2009). Human resource development competencies as predictors of agricultural extension agents' performance in Yemen. *Human Resource Development International* 12(4):429-447.
- Mahajan P, Kauts A (2022). Study of professional commitment among secondary school teachers of Punjab with respect to type of schools. *Journal of School Psychology* 6(6):9587-9597. <http://journalppw.com>
- Mutabazi P (2023). *Customer Service: What It Is and Its Importance*. <https://www.linkedin.com/pulse/customer-service-what-its-importance-patrick-mutabazi/>
- Pallant J (2007). *SPSS Survival Manual: A Step-by-Step Guide to Data Analysis Using SPSS Version 17 (3rd edition)*. Berkshire: McGraw-Hill.
- Parry SB (1996). The quest for competencies. *Training* 33(7):48-56.
- Project Management Institute (PMI) (2008). *A guide to the project management body of knowledge (4th edition)*. Newtown Square, PA: Project Management Institute.
- Saxe R, Weitz BA (1982). The SOCO scale: A measure of the customer orientation of salespeople. *Journal of Marketing Research* 19(3):343-351.
- Schroeder K (2008). *Competence Literature Review*. https://www.innovationlabs.com/research/pre/reading_materials/competence_lit_review.pdf
- Serrador P (2013). *The Impact of Planning on Project Success – A Literature Review*. https://www.researchgate.net/publication/280930386_The_Impact_of_Planning_on_Project_Success-Literature_Review
- Song S (2008). Efficiency and Technology gap in China's agricultural, a regional meta- frontier analysis. *China Economic Review* 19(2):287-296.
- Southworth SS, Ha-Brookshire J (2016). The impact of cultural authenticity on brand uniqueness and willingness to try: The case of Chinese brands and US consumers. *Asia Pacific Journal Marketing and Logistics* 28(4):724-742.
- Srivastava R, Yadav S (2017). A Research Study on the effect of Emotional Intelligence on the Ability to Handle the Conflict and Team Building. *Splint International Journal of Professionals* 4(5):86-93. <http://search.proquest.com/openview/aa87d247d04f2fdc3fb24c73cc9db11/1?pq-origsite=gscholar&cbl=2044944>
- Smith MF (1983). *Sampling considerations in evaluating cooperative extension programs*. Gainesville, Florida: Florida Cooperative Extension Service. <https://original-ufdc.ufflib.ufl.edu/IR00011319/00001>
- Truitt DL (2011). The Effect of Training and Development on Employee Attitude as it Relates to Training and Work Proficiency. *SAGE Open* 1(3):2158244011433338.
- Tumwesigye G (2010). The relationship between perceived organizational support and turnover intentions in a developing country: The mediating role of organizational commitment. *African Journal of Business Management* 4(6):942-952.
- Wehmeir S (1999). *Oxford Advanced Learner's Dictionary of current English/A.S. Hornby*. (Seventh edition) 7:850.
- Yi HT, Lee M, Park K (2022). Service Orientation and Customer Performance: Triad Perspectives of Sales Managers, Sales Employees, and Customers. *Behavioural Science (Basel)* 12(10):1-22.
- Zhao FF (2023). Teaching behaviours of clinical teachers and professional commitment among nursing students: A moderated mediation model of optimism and psychological well-being. *Nurse Education Today* 2023 Jun; 125:105774.