



# The impact and challenges of a public policy implemented in the South African Police Service, Northern Cape

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**Background:** South Africa has evolved new policies and legislations to renew the governance and administrative systems of the country in the wake of multiparty democracy. However, public institutions, including the South African Police Service (SAPS), are still criticised for poor service delivery. The SAPS has often blamed its perceived poor performance on inadequate resources despite the existence of a supply chain management (SCM) policy that seeks to bring efficiency in the acquisition and deployment of resources for service delivery. Therefore, using the framework of public policy theory, this study sought to assess the perceptions of personnel at SAPS in Northern Cape province on the SCM policy's impact on service delivery and the challenges thereof.

**Aim:** The aim is to contribute to the understanding of how SCM policies enhance the service delivery capabilities of government departments.

**Setting:** The setting is SAPS in the Northern Cape province of South Africa.

**Methods:** The study adopted a cross-sectional survey design with a main survey and a follow-up survey being conducted. The main survey involved data collection from 174 staff members while the follow-up survey involved 70 respondents.

**Results:** Statistical analysis of the two sets of data revealed that the SCM policy has had some positive on service delivery. Staffing inadequacy was found to be the biggest challenge. In fact, 12 out of the 15 challenges are attributable to the human factor.

**Conclusion:** The SCM policy has had some positive impact on service delivery in SAPS NC, but there is room for improvement.

**Keywords:** goods; public; service concept; service delivery; supply chain management.

## Introduction

To solve societal problems, support governmental institutions and encourage active citizenship, public policies are required (Hill & Varone 2017:16). Public policy is the principled guide to action taken by administrative executive branches of the state with regard to a class of issues, in a manner consistent with law and institutional customs (Smith & Larimer 2017:3). Public policies have certain key features, such as: (1) the approaches used to arrive at them, (2) the goal or purpose for which they are formulated, (3) the focus or content of the particular policy and (4) the tools or instruments contained in the policy. The approaches are the methods used to formulate and implement the policy, and there are several approaches to policymaking (see e.g. Adler & Seligman 2016; Almeida & Gomes 2018; Considine 2012; Head & Alford 2015; Weible & Cairney 2018:186). The goal or purpose is what the policy is intended to achieve, which invariably involves solving a societal problem. Problem-solving in this regard may mean: (1) correcting a certain undesirable situation, (2) pre-empting a potentially negative situation or (3) improving an existing positive but suboptimal situation. The focus of a public policy is the sphere of society in which the problem is being addressed (e.g. health, education, economic). As a result, the focus of the policy influences its content. Lastly, the tools or instruments of a policy are the weapons that are used to target and solve the problem (Haselswerdt & Bartels 2015; Howlett & Mukerjee 2017; Philips & Green 2015). Examples of policy tools are taxes, regulation, grants, services, budgets, information and rights (Fischer et al. 2017:82). Sometimes the tools of public policy are viewed as policies in their own right (see e.g. Simmons et al. 2018; Zhu, Sarkis & Lai 2018; Zwick & Mahon 2017), where the government's approach to taxation, for instance, may be referred to as a 'tax policy' or its mechanism for regulating activities in a sector of the economy as 'regulatory policy'. Other times, the approach of extracting taxes and government spending on societal problems is referred to as

'fiscal policy' (see e.g. Rendahl 2016). In this regard, public policies may be viewed as broad policies with the specific tools embodied in them viewed as micro-policies.

The expenditure part of public budgets allocates financial resources for solving problems that government has prioritised (Park, Park & Maher 2018). Because resources are scarce, the aim of every government should be to make efficient use of resources in order to satisfy as many of the unlimited wants and needs of society as possible (Blecher et al. 2013:7). A mechanism that is often used to achieve this aim is a supply chain management (SCM) policy. An SCM policy is a system put in place to efficiently manage the procurement and deployment of goods and services in the process of solving problems (Ambe 2016:20). As a result, an SCM policy is useful in enhancing the performance of government spending as a tool of public policy. It is in this light that the government of South Africa has instituted the SCM policy to enhance service delivery in the public sector.

The concept of SCM was introduced within the public sector as a series of budgetary and financial reforms that were initiated by the government of South Africa in 2003 in its attempt to modernise the management of the public sector (Bizana, Naude & Ambe 2015:668). The majority of public sector institutions have commenced with phased implementation of the SCM policy, focused on addressing the inefficiencies in procurement, contract management, inventory and asset control, and obsolescence planning in the public sector. It is, however, not clear to what extent this policy has improved service delivery.

Although a number of studies have been conducted on the concept of SCM in both the private and public sectors, there does not seem to be any work done on the impact and challenges of implementing an SCM policy in the public sector, much less within the context of law enforcement. For instance, some researchers (e.g. Casadesus & Castro 2005; Jerbi et al. 2012; Klemencic 2006; Naude 2009) have studied and reported on SCM in the private sector. Amongst them, only Jerbi et al. (2012) looked at it from a policy perspective; the remaining works addressed the generic concept of SCM. Researchers who have done some work on SCM in the public sector (e.g. Ambe 2016; Ambe & Badenhorst-Weiss 2012; Bizana et al. 2015; Chimusoro et al. 2017; Fourie & Chimusoro 2018) have also not been able to assess the impact and challenges of the SCM policy concurrently. For instance, whereas Chimusoro et al. (2017) assessed the impact of the SCM policy on the operations of a government-owned passenger rail transport organisation, Ambe and Badenhorst-Weiss (2012) studied and reported on only the challenges of implementing the SCM policy in the South African public sector. Furthermore, none of these studies seems to have related SCM to service delivery, less so to service delivery in the police service. Similarly, studies that have been conducted on service delivery in the police service (e.g. Daniels & Hendrickse 2017; Kleyn, Rothmann & Jackson 2004; Legget 2002; Mason, Ngobese & Maharaj 2019; Ngobese, Mason &

Maharaj 2017; Rothmann 2006) do not seem to have been done with SCM in mind. The foregoing constitutes a microcosm of the work done in SCM and the gap that remains with respect to the impact and challenges of implementing SCM policies in public sector organisations.

Because organisations differ in terms of culture and context (Chang & Lin 2015; Longman et al. 2018), it is reasonable to surmise that implementing the same SCM policy in different organisational settings may yield varying challenges, leading to different end results, such as service delivery consequences. It is thus necessary to investigate how the SCM policy has impacted service delivery in the police service and the challenges experienced in implementing it. This is because South Africa seems to be in a state where public trust in the police has deteriorated because of perceived poor service delivery by the South African Police Service (SAPS) (Olutola & Bello 2016:221). Therefore, understanding whether the SCM policy is helping provide resources to enhance police service delivery is useful in determining if public trust in the police will improve any time soon. For this reason, this study is being undertaken using the SAPS in the Northern Cape province (SAPS NC) as a case study.

The aim of this article is to contribute to the understanding of how SCM policies enhance the service delivery capabilities of government departments. The main objective is to assess SAPS NC officials' perceptions of the impact and challenges of implementing the SCM policy with respect to police service delivery to the public. After this introduction, the theoretical framework is discussed. This is followed by the 'Methods' and 'Results' sections, after which the implications for policy and research are discussed. The article then ends with a conclusion.

## Theoretical framework

This study considers public policy in general and SCM policy in particular as an instrument of development. This is because public policy is essentially a course of action adopted or created by government in response to public problems (Hill & Varone 2017:16). As governmental solutions to societal problems invariably mean development (Mcloughlin 2015:343), public policy, as the mechanism government uses to identify and formulate solutions to the problems, can in that regard be viewed as an instrument of development. Therefore, the theories underpinning this work are public policy theory, supply chain theory and service delivery theory. Service delivery is used as a proxy for development in this study because it entails the goods and services that government institutions deliver to the populace to solve public problems.

Supply chain management is the identification, acquisition, access, positioning and management of the resources and related capabilities an organisation needs or potentially needs to attain its strategic objectives (Kruger, Ramphal & Maritz 2015:41). It integrates all activities and processes across functional and organisational boundaries in order to

optimise customer value and sharing of benefits by all participants in the chain (Irvine 2015:143). Therefore, it can be concluded that SCM is directly linked to service delivery and has an influence on service delivery by public institutions.

Service delivery can be viewed from either a private sector perspective or a public sector perspective. From a private sector perspective, service delivery is the actual delivery of a service and/or a product to a customer (Chen & Tsou 2015), whereas public sector service delivery is the provision of public activities, benefits or satisfactions to the citizens (Batley & Mcloughlin 2015; Rasul & Rogger 2018). Thus, public service delivery also invariably involves the provision of services or products by the government to the citizens as mandated by acts of parliament (Mcloughlin 2015:343). Therefore, service delivery can either be tangible (products) or intangible (services). Service delivery can also be internal or external, depending on whether the beneficiaries are internal or external stakeholders. Internal service delivery occurs when goods and services are delivered to internal stakeholders, whereas external service delivery is when goods and services are delivered to external stakeholders. Internal service delivery is a prerequisite for the achievement of external service delivery (Schoute, Budding & Gradus 2018; Yu et al. 2019).

Service delivery has three elements, namely, target market, service concept and service delivery systems design (Ponsignon, Smart & Maull 2011:325). 'Target market' refers to who the right customer is, whilst 'service concept' can be described as the mix of tangible and intangible aspects of what is being delivered to the customer. Finally, the 'service system' is concerned with how the service concept is provided to the customers. It encompasses the structure (e.g. facilities and equipment) and infrastructure (e.g. skills and policies) to deliver the service concept. According to Ponsignon et al. (2011:324), the interactions of these three elements must lead to the successful deployment of business strategy so that value is created for both the customer and the organisation. This value can be determined in terms of customer satisfaction, retention and overall profitability. Value is therefore co-created by the customer and the firm (Lusch 2011:15).

In this study, the service concept is the mandate (i.e. prevent, combat and investigate crime) that the Constitution and the White Paper on Policing expect of the police service; the service system is the policies and infrastructure that aid in the execution of the mandate, and the target market is the general public.

The primary objective of the SCM policy is to create an environment that enables government departments to manage the supply of goods, services and works in a manner that is fair, equitable, transparent, competitive and cost-effective, by (1) adherence to relevant legislative and regulatory requirements within the framework of broader

contemporary government priorities and (2) implementing enhanced SCM functions to improve the role of SCM in improving service delivery (Department of Public Works 2008:6). To achieve this objective, the policy categorises SCM into a number of components; key components include demand management (DM), acquisition management (AM), logistics management (LM) and performance management (National Treasury 2015:28). Demand management involves understanding what the needs of the end user are, whereas AM entails accessing the inputs to address the needs of the end user. Logistics management addresses the physical flow of goods and services in the entire supply chain, whilst performance management deals essentially with controlling the processes of the supply chain to achieve its objectives.

In this framework, the following research questions are posed:

- What is the impact of the SCM policy on service delivery in SAPS NC?
- What are the challenges encountered in implementing the SCM policy in SAPS NC?

To test if the SCM policy has had an impact on service delivery within this theoretical framework, this study measures the regression relationships between AM, DM and LM and service delivery. If positive relationships are found to exist, then SCM policy can be deemed to have impacted positively on service delivery.

Prior to that, service delivery is objectively assessed by comparing the mean scores of items under 'Service Concept' with those under 'Value' to check if there is self-reporting bias. The items under these two components of service delivery are the same, except that those under 'Service Concept' measure the expected situation, whereas those under 'Value' measure the realised situation. Therefore, a significantly lower mean score for 'Value' items compared to that for 'Service Concept' items will indicate that realised service delivery falls short of expected service delivery. If so, then self-reporting bias has been minimised in the sense that the structuring of the 'Service Concept' and 'Value' variables has unconsciously limited respondents' ability to unduly overstate their organisation's level of service delivery to the public. This approach to minimising self-reporting is based on the revealed preference theory, which is a way to infer the preferences of individuals given the observed choices. The revealed preference theory, which is a theory from micro-economics, essentially states that individuals' actions reveal more about their preferences than their words (Echenique et al. 2013; Samuelson 1948). In other words, '[i]t is not what you say, it is what you do that reveals what you want'. Therefore, when respondents unconsciously indicate that the level of service delivery achieved does not measure up to the level of service delivery expected, they may be revealing their true position compared to if a more direct method is used. It is for this reason that this article uses this theory to attempt to minimise self-reporting bias in respect of service delivery.

## Methods

The first part of the research, which was about finding an answer for the first research question, was made possible by cross-sectional survey data collected from personnel of SAPS NC. The second research question, which was about the challenges encountered in implementing the SCM policy, was answered by analysing data collected from a follow-up survey. This was because, in the first survey instrument, the item eliciting views on the implementation challenges was left open-ended to allow respondents the flexibility to list as many as possible. Therefore, after identifying the top 15 challenges from the first survey data, it became necessary to take them back to the respondents for further discussion to gain a deeper understanding on them and the remedial measures necessary to contain them. Through a follow-up measuring instrument distributed to participants, it also became possible to rank the top 15 challenges using statistical means.

## Population and sample

### Main survey

The staff strength of SAPS NC is 7307, which was also the population size of this study. With a highly formalised organisational structure, identifying individuals in the population was fairly easy, as the nominal roll (staff list) came in handy as a very reliable sampling frame. A multistage sampling technique was used to ensure that: (1) the majority of respondents of the survey had been in the organisation for a long enough period to understand the phenomenon that was being measured and (2) the various categories of staff were sufficiently represented in the sample (see Table 1). As a result, a total of 176 questionnaires were distributed to the relevant categories of personnel of SAPS NC. Of this number, 174 questionnaires were returned, with all being found useful for analysis.

Although selecting 176 persons out of a total population of 7307 might seem inadequate (i.e. only 2.4% of the population), the homogeneity of the population made it possible to extract useful information from the barest minimum of the entire population. According to Bryman et al. (2017:177),

**TABLE 1:** Demographics frequency.

Variable	Category	Frequency	%
Tenure	1–5 years	19	10.9
	6–10 years	45	25.9
	11–20 years	58	33.3
	21–30 years	38	21.8
	Over 30 years	14	8.0
Section	Operational service	54	31.0
	Support services	120	69.0
Gender	Male	87	50.0
	Female	87	50.0
Age	19–25 years	3	1.7
	26–30 years	12	6.9
	31–40 years	75	43.1
	41–50 years	63	36.2
	Over 50 years	21	12.1

high sample sizes only become necessary when there is the need to measure the variations associated with the different segments of a very large and heterogeneous population (e.g. a national population), but where the population is homogeneous (as in the case of an organisation), a minimum sample size is enough to reveal the patterns in the phenomenon that the researcher is investigating.

### Follow-up survey

The follow-up survey for this study was conducted according to the geographical demarcations of the SAPS NC. These geographical demarcations are known as 'clusters', of which there are five, namely: (1) Pixley Ka Seme, (2) Frances Baard, (3) ZF Mgcawu, (4) Namakwa and (5) John Taolo Gaetsewe (JTG). In each cluster, 14 participants who were respondents in the main survey part of this study and were viewed as being very useful in providing information on the challenges faced in implementing the SCM policy were purposefully selected to constitute the sample. This gave a total number of 70 respondents for the follow-up survey. These individuals cut across rank, gender and the departmental divides of the organisation, as quota sampling was used at this stage of the research. Although it is a non-probability sampling technique, quota sampling enables the researcher to purposefully select a sample that reflects the attributes of a population such as gender, age group and length of service (Bryman et al. 2017:180).

## Instrumentation and assurance of credibility

### The main survey

The questionnaire for the main survey had seven sections to collect data on demographics, service system, service concept, value, supply chain components, the SCM policy and the challenges experienced in implementing the policy. The section on the supply chain components was subdivided into DM, AM, LM, and performance management. Each section is described in more detail below.

**Section 1, Demographics data:** This section contained four items that asked respondents to provide their personal details in relation to the SAPS.

**Section 2, Service system:** This section contained seven items, Questions 1–7 (Q1–Q7), and respondents were asked to indicate the extent to which the service delivery of SAPS NC met the needs of clients. The question was on a five-point interval scale ranging from 'not at all' (1) to 'to a great extent' (5).

**Section 3, Service concept:** The six items in this section (Q8a–Q8f) sought to measure the extent to which the responsibilities of the SAPS as defined by statutes were considered relevant by respondents. Again, respondents were asked to answer on a five-point interval scale ranging from 'not at all' (1) to 'to a great extent' (5).

**Section 4, Value:** The six items in this section (Q9a–Q9f) were a follow-up to those in Section 3. The items sought responses concerning the extent to which respondents were satisfied with the way SAPS carried out the responsibilities described in Section 3. The questions were posed on a five-point interval scale ranging from ‘not at all’ (1) to ‘to a great extent’ (5).

**Section 5, Supply chain management elements:** There were 27 items in this section. The first four (Q10a–Q10d) asked respondents to indicate the extent to which they understood the elements or components of SCM. The remaining 23 items (Q11a–Q24g) then sought to know the extent to which the various components of the SCM policy (i.e. DM, AM, LM and performance management) had been implemented in the SAPS NC. The questions were posed on the five-point scale ranging from ‘not at all’ (1) to ‘to a great deal’ (5).

**Section 6, Supply chain management policy:** Using three items, this section asked respondents to indicate the extent to which they found the SCM policy relevant to current circumstances in the procurement of goods and services in SAPS NC. Again, the same five-point scale was employed.

**Section 7, Challenges:** This was the last section in the questionnaire, and the only item here was left open to give respondents the flexibility to come up with as many challenges as possible. The only question posed in this section was, ‘What have been the challenges in implementing the supply chain management policy in SAPS NC?’

To assure the credibility of the measuring instrument, rigorous literature reviews were conducted on the broad variables (i.e. SCM and service delivery) to identify items that help measure them. In addition, the instrument was pretested in the SAPS of the Free State and North West provinces, which share borders with the NC and have similar socio-cultural characteristics. These measures ensured the validity of the measuring instrument. The instrument’s reliability was assured by computing Cronbach’s alpha coefficients for the seven sections of the questionnaire. Six of the sections had Cronbach’s alpha coefficients ranging from

0.849 to 0.977. The only section that fell out of this range had a Cronbach’s alpha of 0.667. A Cronbach’s alpha coefficient that is above 0.60 indicates a reliable variable – although these guidelines do differ from researcher to researcher (De Smedt et al. 2013:2295; Field 2012:675).

### Follow-up survey

The follow-up instrument was designed to allow for the easy quantification of the responses of individual participants in order to rank the top 15 challenges identified in the survey part of the study. As a result, close-ended questions on a five-point interval scale were used. The instrument was structured, as shown in Table 2.

### Ethical consideration

This article followed all ethical standards for a research without direct contact with human or animal subjects.

## Results and discussion

### Demographics

Table 1 shows the descriptive statistics of the demographic data collected in the study. The statistics are in the form of frequency counts and frequency percentages on the four variables measured under the demographic data section of the survey instrument (i.e. tenure, section, gender and age).

Table 1 shows that 155 out of the 174 respondents had been in the organisation for 6 or more years, with only 19 having a tenure of less than 6 years. This is derived from the frequency counts under ‘Tenure’. This translates into a frequency percentage of 89.08% of respondents having a tenure of 6 or more years with the remaining 10.92% having a tenure of less than 6 years. This means that the overwhelming majority of respondents of the survey had been in the organisation for a long enough period to understand the phenomenon that was being measured (i.e. the impact of the SCM policy on service delivery), given that the implementation of the SCM policy began in 2003 (Bizana et al. 2015:668; National Treasury 2004:2).

**TABLE 2:** Instrument measuring the extent to which challenges affected the implementation of the supply chain management policy.

Number	Challenge	Not at all	Low	Neutral	High	A great deal
1	Lack of resources	1	2	3	4	5
2	Inadequate skills or training	1	2	3	4	5
3	Inadequate staffing or personnel	1	2	3	4	5
4	Slow response time of suppliers	1	2	3	4	5
5	Interpretation/understanding of policies	1	2	3	4	5
6	Inconsistency in planning & budget alignment	1	2	3	4	5
7	Inadequate monitoring & evaluation	1	2	3	4	5
8	Incorrect (top-down) SCM structure	1	2	3	4	5
9	Lack of support	1	2	3	4	5
10	Inadequate communication/information on policies	1	2	3	4	5
11	Lack of commitment by managers	1	2	3	4	5
12	Poor quality of supplies/specifications not met	1	2	3	4	5
13	Non-compliance with policies and regulations	1	2	3	4	5
14	Irregular update of policies	1	2	3	4	5
15	Unethical conduct	1	2	3	4	5

SCM, supply chain management.

## Impact of supply chain management on service delivery

The impact of the SCM policy on service delivery was assessed at two levels: (1) comparing employees' perceptions of expected service delivery (categorised as 'Service Concept') against their perceptions of realised service delivery (categorised as 'Value'), which may also indicate the extent of self-reporting bias; and (2) measuring the direct relationships between the SCM components (i.e. AM, DM and LM) and service delivery.

### Service concept and value as measures of service delivery

The White Paper on Policing reiterates the provision in Section 205(3) of the Constitution of the Republic of South Africa, which states that:

The objects of the police service are to prevent, combat and investigate crime, to maintain public order, to protect and secure the inhabitants of the Republic and their property, and to uphold and enforce the law. (Civilian Secretariat for Police 2016:10)

These objects are invariably the services that the police service is expected to deliver to the South African populace. Therefore, the Police Service's service delivery to its external stakeholders is based on these services.

A close look at Tables 3 and 4 shows a remarkable similarity between their items. This is because 'service concept' defines the combination of tangible and intangible products that ought to be delivered to the customer (Beltagui et al. 2017), whereas value is the realisation of the service concept. Thus, when the service concept is put into action, it transforms into realised benefit or value to the customer.

The 'Value' section of the survey instrument gave SAPS NC personnel an opportunity for introspection on the extent to which they thought they had delivered on their core mandate to the general public. Therefore, it is significant to

**TABLE 3:** Summary statistics of service concept.

Service concept	Mean	Standard deviation
Prevent crime?	3.885	1.064
Combat crime?	3.937	1.032
Investigate crime?	3.931	1.089
Maintain public order?	3.914	1.069
Protect and secure inhabitants of the province and their property?	3.954	1.008
Uphold and enforce the law?	3.983	1.000
<b>Composite</b>	<b>3.934</b>	<b>1.04367</b>

**TABLE 4:** Summary statistics of value.

Value	Mean	Standard deviation
Crime prevention	3.155	0.902
Combating crime	3.167	0.867
Investigation of crime	3.086	0.918
Maintaining public order	3.213	0.922
Protecting and securing inhabitants and their property	3.195	0.871
Upholding and enforcing the law	3.213	0.857
<b>Composite</b>	<b>3.1715</b>	<b>0.8895</b>

note that whereas the respondents scored the items highly (i.e. composite mean score of 3.934) under 'Service concept' (Table 3), they were less enthusiastic to score them that highly under 'Value' (i.e. composite mean score of 3.1715 [Table 4]).

The composite mean score of the 'Service concept' items is 19.38% above that of the 'Value' items. This means that respondents were more convinced about the extent to which the items measured service concept than the extent to which SAPS NC had delivered on those items to the general public – even though a mean score of three and above generally indicates a good rating. In addition to this, the dispersion of the individual responses (standard deviation [SD]) from the mean responses was lower in the 'Value' items (composite SD = 0.88950) than in the 'Service concept' items (composite SD = 1.04367). This means that there is more convergence in respondents' answers to the 'Value' items than to the 'Service concept' items. This shows the reasonable amount of consensus with which respondents have indirectly revealed their views on the seeming inadequacy of service delivery to the general public. It also shows that self-reporting bias may have been minimised by this approach.

The implication of all this is that SAPS NC personnel seem to think that there is room for improvement to service delivery to external stakeholders in the NC, even though there is a reasonable amount of external service delivery. This finding aligns with a similar one by Maboja (2018), who evaluated service delivery in the Germiston Police Station and found the need to improve customer service in that police station as paramount.

### Measuring the relationship between supply chain management and service delivery

To determine the extent to which SCM (i.e. each of AM, DM and LM) influences service delivery, a regression analysis was done. The results are reported in Table 5.

The *p*-values for the all the coefficients are below 0.05, which means that AM, DM and LM have a significant impact on service delivery. The coefficient of AM is 0.523. The positive coefficient means that a unit's improvement in AM leads to 0.523 improvement in service delivery, holding the other variables constant. Similarly, the coefficient of DM means that improving DM by one unit leads to 0.361 improvement in service delivery, holding the other variables constant. A similar interpretation can be given to the coefficient of LM of 0.510.

**TABLE 5:** Regressing service delivery on acquisition management, demand management and logistics management.

DV: Service delivery	Coefficients		<i>t</i> -statistic	<i>p</i>
	Unstandardised	Standardised		
Intercept	15.384	-	6.409	0.000
AM	0.523	0.232	2.681	0.008
DM	0.361	0.171	2.268	0.025
LM	0.510	0.333	3.944	0.000
Adjusted <i>R</i> <sup>2</sup>	0.403	-	-	-

AM, acquisition management; DM, demand management; LM, logistics management; DV, dependent variable.

The  $R^2$  value of 0.403 means that about 40.3% of the variation in service delivery is explained by AM, DM and LM. The standardised coefficients indicate that, all things being equal, LM (0.333) has the highest impact on service delivery, followed by AM (0.232) and lastly DM (0.171). The results under this section concur with Bizana et al.'s (2015) findings that the various components of SCM each have an impact on service delivery, although there is room for improvement.

### Challenges in implementing the supply chain management policy

This section answers the second research question. As explained in the 'Methods' section, the aspect of the questionnaire that sought to elicit responses to this question was left open-ended to allow for flexibility in the answers. This led to a vast number and variety of challenges being listed by respondents, which were consolidated and tallied to identify the top 15 challenges. These top 15 challenges were then taken back to respondents for confirmation and ranking in the follow-up survey. The results of the ranking are presented in Table 6.

Table 6 shows the biggest challenge to be inadequate staffing (mean percentage = 71.2%), followed by slow response time of suppliers (mean percentage = 69.6%), and then lack of support (mean percentage = 68.4%). Similarly, Maboja (2018) found inadequate staffing as the most pressing challenge to service delivery in the Germiston Police Station. This seems unsurprising because in contrasting the characteristics of public sector SCM to those of the private sector, Ambe and Badenhorst-Weiss (2011:84) imputed lower staffing and competency levels to the public sector compared to the private sector.

In addition, the fact that lack of skills or training (mean percentage = 62%) features amongst the top 15 challenges further accentuates the human resource problem that the implementation of the SCM policy faces in SAPS NC. A number of researchers (e.g. Flothmann 2017; Gomez-Cedeno et al. 2015) emphasise the crucial role that the human factor plays in SCM, for which reason staffing and skills issues

should not be taken lightly. Unfortunately, SAPS NC seems to be missing the opportunity to use training to close the staffing and skills gap for a better implementation of the SCM policy.

### Implications of the study for policy and research

Supply chain management involves managing activities upstream, within the focal organisation, and downstream (Droge, Vickery & Jacobs 2012; Hugo, Badenhorst-Weiss & Van Biljon 2016:5). Effective management requires a strong human resource base (Rahmawati 2017). Contrary to this, the results of this study have revealed the human factor as the main stumbling block to the implementation of the SCM policy in SAPS NC. In fact, about 12 out of the 15 challenges identified have to do with the human factor – whether the inadequacy is expressed in terms of numbers, skills, attitudes or ethics. Therefore, SAPS NC has to take a comprehensive look at its recruitment and training policies to develop a strategy for improving the quality and quantity of its human resources.

In terms of the slow response time of suppliers and lack of resources, it is recommended that SAPS NC distinguish between ordinary suppliers and emergency suppliers. This is because using the same approach to make ordinary and urgent requests may be responsible for the suppliers' attitude of treating all requests as 'business as usual'. Therefore, segregating the emergency suppliers from ordinary suppliers will go a long way in addressing this problem. An emergency supplier who has been well educated on the new approach will not confuse an urgent request with an ordinary one. Secondly, an audit should be conducted into the capacity of the transport section as well as the procedures that guide the request for vehicles to address the challenge of lack of resources (interactions with staff during the follow-up survey revealed that lack of resources mainly means lack of transport). Such an audit will help the organisation to understand what capacity and procedural gaps need to be filled to address the challenge. The same can be done for other resources.

The emergent nature of supply chain as a discipline has led to a situation where its components have been described in varied ways (Caddy & Helou 2007:320; Chicksand et al. 2012). This makes it difficult to identify the key elements of SCM. However, having the SCM policy of South Africa as its reference point made it much easier for this study to identify the key elements used in the model. Doing so meant that performance management, disposal management and risk management, which are also components of the SCM policy (see National Treasury 2004, 2015), were left out. Any future study should therefore include all components of the SCM policy. This will help to determine if there is any significant increase in the explanatory power of the model if the independent variables are increased beyond those used in this model.

**TABLE 6:** Ranked challenges from follow-up survey.

Variables	Mean	Mean (%)	Standard deviation
Inadequate staffing or personnel	3.560	71.2	1.248
Slow response time of suppliers	3.480	69.6	1.074
Lack of support	3.420	68.4	1.263
Inconsistency in planning and budget alignment	3.200	64.0	1.069
Lack of commitment by managers	3.163	63.2	1.028
Inadequate communication/information on policies	3.120	62.4	0.558
Inadequate monitoring and evaluation	3.100	62.0	0.886
Poor quality of supplies/specifications not met	3.100	62.0	1.093
Inadequate skills or training	3.100	62.0	1.216
Lack of resources	3.060	61.2	1.236
Incorrect (top-down) SCM structure	3.040	60.8	1.087
Interpretation/understanding of policies	3.020	60.4	0.9998
Non-compliance with policies and regulations	3.020	60.4	1.097
Unethical conduct	2.880	57.6	1.206
Irregular update of policies	2.820	56.4	1.082

SCM, supply chain management.

## Conclusion

This study set out to investigate the extent to which the SCM policy has affected service delivery within SAPS NC and the challenges encountered in implementing the policy. 'Service delivery' is the goods and services delivered to the public or customers. The results showed that the SCM policymaking had an overall positive impact on external service delivery, but realised external service delivery was found to fall short (composite mean score = 3.1715) of expected external service delivery (composite mean score = 3.934) by 19.38%. This suggests that the realised external service delivery may not be adequate.

Fifteen challenges were identified to be militating against the implementation of the SCM policy. These challenges are minimising the impact of the SCM policy on service delivery. The biggest challenge is inadequate staffing or personnel, followed by slow response time of suppliers and then lack of support. The human factor is responsible for about 12 out of the 15 challenges. Therefore, there is the need for SAPS to take a comprehensive look at its recruitment and training policies to increase the quality and quantity of its staff. This may involve increasing the minimum educational requirements for recruiting the various categories of staff as well as intensifying the on-the-job training of staff. This together with other measures will go a long way to help the organisation to increase service delivery to its stakeholders. The main contribution of this article is the ideas offered to help public organisations increase their service delivery to the public. To sum up, it can be concluded that the SCM policy has had a positive impact on service delivery with respect to SAPS NC, but there is still room for improvement.

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The authors have declared that no competing interests exist.

## Author's contributions

All authors contributed equally to this work.

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## Data availability statement

The authors confirm that the data supporting the findings of this study are available within the article.

## Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

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