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**A MODEL FOR IMPROVING THE STRATEGIC
MEASUREMENT AND MANAGEMENT OF POLICING:
THE POLICE ORGANISATIONAL PERFORMANCE
INDEX (POPI)**

A Dissertation

Submitted to the Faculty of Graduate Studies and Research

in Partial Fulfillment of the Requirements

for the Degree of

Special Case Doctor of Philosophy

in

Police Studies

University of Regina

by

Terence George Coleman

Regina, Saskatchewan

June, 2012

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UNIVERSITY OF REGINA
FACULTY OF GRADUATE STUDIES AND RESEARCH
SUPERVISORY AND EXAMINING COMMITTEE

Terence George Coleman, candidate for the degree of Special Case Doctor of Philosophy in Police Studies, has presented a thesis titled, **A Model for Improving the Strategic Measurement and Management of Policing: The Police Organisational Performance Index (POPI)**, in an oral examination held on May 30, 2012. The following committee members have found the thesis acceptable in form and content, and that the candidate demonstrated satisfactory knowledge of the subject material.

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Abstract

In order to implement and sustain contemporary-policing, police organisations must operate strategically by focusing on the measurement and management of results (outcomes) and the efficiency of services and programs instead of focusing only on inputs, processes and outputs. Notwithstanding this, it is clear that many leaders of policing have not recognized the necessity to identify and align appropriate organisational performance indicators with an organisational strategy.

The present study therefore sought to establish a model for the strategic measurement and management of police organisational performance that would a) embrace the Fundamental Principles of Contemporary-Policing such as consultation, collaboration and an outcome focus, and b) support the continuing transformation of policing to the contemporary (community) policing model.

This was achieved by means of an online survey of policing stakeholders that included police personnel, elected municipal officials, members of police governance authorities and senior municipal and provincial public servants. The survey sought their opinions about what was critical to consider when assessing the performance of their local police. The result was the identification of seven Critical Strategic Success Factors (CSSFs): Legitimacy of the Local Police Agency; Leadership and Management of the Local Police Agency; Enforcement by the Local Police Agency; Community's Feeling of Safety; Crime and Social Disorder in the Community; Misconduct of Local Police Personnel; and Mutually Beneficial Police/Community Relationships. Together, these form a new model for the strategic measurement of police organisational performance (POPI).

POPI has the potential to be the genesis of a new approach to the strategic leadership and management of police agencies and, thus, a foundation for a new approach to police accountability. In the Canadian context, POPI can be viewed as breaking new ground in the quest for a responsive strategic performance measurement and management model that meets accountability expectations of the public.

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Dedication

to my parents

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Abbreviations

CACP	Canadian Association of Chiefs of Police
CAPB	Canadian Association of Police Boards
CFI	Comparative Fit Index
CSF	Critical Success Factor
CSSF	Critical Strategic Success Factor
IP	Internet Provider
KPI	Key Performance Indicator
POPI	Police Organisational Performance Index
PPAF	Police Performance Assessment Framework
PZB	Parasuraman, Zeithaml and Berry [model]
ROI	Return on Investment
SPMF	Strategic Performance Management Framework
TQ	Total Quality
U.K.	United Kingdom
U.S.	United States
UCR	Uniform Crime Reporting

1. INTRODUCTION

In recent years, a number of academics as well as some practitioners of Canadian policing have noted that not all police organisations have changed their business practices congruent with the contemporary public sector and social environments. For instance, even though John Eck and Dennis Rosenbaum considered community-policing to be the “new orthodoxy”¹ and even though community-policing² has long been the touted strategy of Canadian police services, recent work in the field³ shows that despite claims to the contrary many police organizations have continued with management practices consistent with the traditional-policing model.⁴

The literature suggests that although community-policing is in large part a product of public sector reform, the necessary structures and systems of police organizations consistent with the contemporary public sector have not been implemented or have been insufficiently implemented.⁵ For instance, as the present study demonstrated, there has been an apparent absence of sufficient structures and systems to address accountability and continuous improvement through performance measurement and management. That is, many police leaders as well as police governance authorities have seemingly not recognized the necessity to identify and align appropriate organisational performance indicators with an organisational strategy.

Indeed Robin Fletcher observed that one of the shortcomings of the implementation of community-policing has been the lack of attention by police leaders to

¹J. Eck and D. Rosenbaum, “The New Police Order: Effectiveness, Equity, and Efficiency,” in *The Challenge of Community-Policing*, ed. D. Rosenbaum (Thousand Oaks, CA: Sage, 1994), 3.

²Since the introduction of *community-policing* in Canada most, if not all, Canadian police organisations have used this term to describe their style of policing even when investigation suggests that might not always be the case. This appears to be because different interpretations and levels of understanding about what is, or is not, *community-policing* often prevail. Therefore, in an attempt to address possible misunderstandings, this study will use the term *contemporary-policing* and *community-policing* interchangeably when it is necessary to differentiate from *traditional-policing*.

³See literature review in Chapter 2.

⁴This study will use the term *traditional-policing* to describe collectively the *professional*, the *reform* and the *bureaucratic* models of policing which preceded the *community-policing* model.

⁵See literature review in Chapter 2.

the measurement of success, noting that community-policing should “pay more attention to process and outcomes.”⁶ This notion has also been supported by scholars of policing such as Annette Davies and Robyn Thomas who suggested that the test for policy-makers is to identify and implement a form of police performance management compatible with progressive policing models such as the community-policing model.⁷

The argument made in the British Government’s paper – *Managing Police Performance: A Practical Guide to Performance Management* – was that strategic performance management enables informed decision-making by “taking action in response to actual performance to make outcomes better than they would otherwise be.”⁸ Furthermore, the paper maintained that a Strategic Performance Management Framework (SPMF) would help police organizations to “identify its desired outcomes, prioritize its actions and understand their impact on future performance.”⁹

Historically, as noted, for example, in the *Report of the Auditor General: Moving toward Managing for Results*, public sector managers were “held accountable for the prudent use of the resources they were given, the authorities they used and the activities they carried out.”¹⁰ Moreover, this led to a narrow cost-centred focus on staying within budget and strictly following policies and procedures. Lovelock and his colleagues also considered the narrow focus on budgets problematic with respect to organisational performance. They determined that although public sector services must satisfy the needs of the public at an acceptable cost, when operations are focused primarily on cost, managers and personnel tend to look inward to focus on their operation rather than

⁶R. Fletcher, “Policing a Complex Community: Political Influence on Policing and its Impact on Local and Central Accountability,” *Journal of Community and Applied Social Psychology*, Vol. 15, No. 3 (2005), 178.

⁷A. Davies and R. Thomas, “Talking Cop: Discourses of Change and Policing Identities,” *Public Administration*, Vol. 81, No. 4 (2003), 681-699.

⁸*Managing Police Performance: A Practical Guide to Performance Management* (London, UK: Police Standards Unit (Home Office) and Accenture, 2004), 3.

⁹Ibid.

¹⁰*Report of the Auditor General of Canada: Moving Toward Managing for Results* (Ottawa: Auditor General of Canada, October, 1997), Chapter 11. para. 11.9.

outward to pay attention to customers' needs. The consequence, they concluded, is a compliance culture instead of an outcome-based culture.¹¹

Harry Hatry, a highly respected scholar with regard to the measurement of public sector performance, shared this perspective. He recommended that to meet the demand for cost effective and valued public services, public organisations must think and act strategically by focusing on the “measurement on a regular basis of the results (outcomes) and efficiency of services or programs,” instead of focusing only on inputs, processes and outputs.¹²

The apparent consensus of experts in the field of contemporary business management, including the contemporary public sector, is that achievement of agreed upon outcomes should be the overall goal of management. For instance, Kevin Haggerty was clear that the measurement of organisational performance is more than of academic importance; it contributes to “more rational and effective governmental programming.”¹³

He further explained that:

statistical knowledge plays a prominent role in practices of liberal governance. Before any particular object can be governed, its distinctive form, inclinations, and tendencies must first be known.¹⁴

Furthermore, James McDavid and Laura Hawthorn pointed out that the challenges in outcome-based performance management are to first specify the expected/desired results and then facilitate the measurement and reporting of the actual outcomes.¹⁵

In general, desired outcomes, which must be linked to the organisational strategy, are derived from inputs through the application of appropriate processes and the subsequent generation of outputs. In the context of policing, organisational inputs are

¹¹C. H. Lovelock, G. Lewin, G. S. Day and J. E. G. Bateson, *Marketing Public Transit: A Strategic Approach* (New York: Praeger, 1987).

¹²H. P. Hatry, *Performance Measurement: Getting Results* (Washington: The Urban Institute Press, 1999), 3.

¹³K. D. Haggerty, *Making Crime Count* (University of Toronto Press, Toronto, 2001), 9.

¹⁴*Ibid*, 5.

¹⁵J. C. McDavid and L. R. L. Hawthorn, *Program Evaluation and Performance Measurement: An Introduction to Practice* (Thousand Oaks, CA: Sage, 2006), 309.

twofold. First, inputs are the funds received from taxpayers to resource policing activities. Police managers quickly convert such funding into human resources and a variety of technologies. Second, and arguably more important, inputs include the numerous authorities of the state that are used, as necessary, by police to create safe communities and, thus, contribute to the quality of community life.¹⁶

Processes are the means by which inputs are converted to generate the various services, and thus outputs, delivered to clients – the community.¹⁷ Outputs, in turn, are the means to the end – the outcome(s). They are generated through the various processes and are usually the immediately visible and tangible results of police activities, such as arrests made or charges laid. Outcomes are the aggregate effect of the outputs and are the results experienced by a member of a community or by the community as a whole. In the case of policing, this is usually the achievement of safe streets and safe communities free from a fear of crime. However, because it is apparent from the literature that the interpretation of the meaning of inputs, outputs and outcomes might vary depending on the source and, perhaps, the context, **Table 1.1** provides a consolidation of these terms as applied to this study.

The outcome, sometimes referred to as the end-result, of policing is the consequence of the many unique and intersecting activities of policing each of which contribute to organizational performance. Therefore, potentially numerous factors could form the basis upon which the overall performance of a police organization could be measured. However, the literature is clear that measuring and combining all of them into a single measure of performance is neither practical nor useful. For instance, for many years, police in England and Wales used as many as 143 performance indicators, each of

¹⁶M. Moore, D. Thacher, A. Dodge and T. Moore, *Recognizing Value in Policing: The Challenge of Measuring Police Performance* (Washington: PERF, 2002).

¹⁷This study recognises that the concept of ‘community’ is complex and is not homogenous. Thus, for the purpose of the study, community includes aspatial communities (such as church groups, service clubs and special interest groups) as well as spatial communities (such as neighborhoods).

Table 1.1: Performance measurement - inputs, processes, outputs and outcomes

Category	Descriptor(s)
Inputs:	are the raw resources required to operate the organisation. In police organisations, these are the funding raised through taxes and the authorities of the state. The latter includes society's ultimate sanctions: the use-of-force and the authority to restrict a person's freedom
Processes:	are the means by which inputs are converted to outputs and, thus, services are delivered
Outputs:	are produced through the processes and activities of the organisation (e.g., in a police organisation, they include the number of arrests/charges and the number of calls-for-service responded to)
Intermediate Outcome:	is an outcome that is expected to lead to a desired end, but is not an "end" in itself. Examples include service response time, which is of concern to a member of the community requesting service but does not inform directly about the "success" of the service. (e.g., in a police organisation this would likely also include a reduction in crime and/or a reduction in social disorder)
Outcome(s):	is an event, occurrence or condition that is of direct importance to the clients/customers - the community. It is the net sum of the outputs generated by programs/tactics to achieve the end-result for the consumer. (e.g., in a police organisation this would likely be a safe community(s) without a fear of crime and disorder). Service quality, such as the timeliness with which the service was provided, is often an important aspect of outcome measurement
Morley, Bryant and Hatry, 2001; Carter, Klein and Day, 1992; Harris, 1999; <i>What Works</i> , 2001; Osborne and Gaebler, 1992; Moore and Poethig, 1999.	

which had varying degrees of direct importance. However, they found that measuring this many indicators was resource intensive, impractical and, in some instances, led to dysfunctional consequences.¹⁸

The literature is unequivocal that for the contemporary-policing model to succeed, strategic outcome-based performance measurement in the context of strategic leadership and management is essential. As posited by Andre de Waal, strategic outcome-based performance measurement and management require:

- the identification of the critical success factors (CSFs) of policing that contribute to outcome assessment; and subsequently,
- the operationalisation of CSFs by the identification and application of key performance indicators (KPIs) for each of those factors.¹⁹

This fits with the previously mentioned argument of McDavid and Hawthorn that it is necessary, when embarking on outcome-based performance management, to first specify the expected/desired results.²⁰

Notwithstanding the aforementioned, research conducted in Canada in 2005 as well as the performance measurement literature from the United Kingdom and the United States has indicated that police organisations still rely predominately on traditional output-based performance measures. Therefore, the present study was undertaken in the Canadian context to generate knowledge required to close the gap between existing output-based traditional practices and those deemed by scholars necessary for contemporary-policing. Consequently, in the context of a) the need to focus police performance measurement and management on outcomes rather than predominantly on outputs, and b) the need to identify a relatively small and select group of critical and strategic success factors that will constitute the determinants of police organisational

¹⁸P. M. Collier, "In Search of Purpose and Priorities: Police Performance Indicators in England and Wales," *Public Money and Management*, Vol. 26, No. 3 (2006), 165.

¹⁹A. de Waal, *Strategic Performance Management: A Management and Behavioural Approach* (Basingstoke, UK: Palgrave MacMillan, 2007).

²⁰McDavid and Hawthorn, *Program Evaluation and Performance Measurement: An Introduction to Practice*, 309.

success, the overall purpose of the study was to identify the critical strategic success factors (CSSFs) of successful police performance from which key performance indicators (KPIs) could be established by future research. More specifically, the objectives of the study were:

1. To learn what stakeholders consider to be the factors of successful policing;
2. To create knowledge to inform the construction of a contemporary Canadian outcome-based strategic performance measurement and management model for policing;
3. To facilitate the evolution of Canadian policing toward a policing model congruent with the contemporary public sector; and
4. To improve public accountability of Canadian police organisations.

The premise was that a better understanding of the criteria for, and elements of, a contemporary strategic performance measurement model would allow decision-makers to proceed from an informed perspective in terms of establishing necessary policy(s), effectiveness of service delivery, and the ability to measure, track, and compare successes and/or failures in achieving the organization's performance goals. To understand this better, the study specifically addressed five research questions:

Research Question 1: According to stakeholders of policing, what are the CSSFs with which to establish a Police Organisational Performance Index (POPI)?

Research Question 2: Do the CSSFs identified by stakeholders as components of the POPI tend to be contemporary (outcome-focused) or traditional (output-focused)?

Research Question 3: Are there differences between the four sub-groups of stakeholders concerning the CSSFs they selected for POPI?

Research Question 4: In the event that there are differences, what are explanations for this?

Research Question 5: How do findings of the study inform public policy with regard to the advancement of the strategic measurement and management of police organisational performance?

To answer these questions, it was necessary to first identify what the stakeholders of policing believed to be the relative importance of the numerous potential factors of police performance from which key performance indicators could be subsequently

derived. In accordance with contemporary-policing principles of community collaboration and consultation, this is best determined by directly surveying the opinions of the key stakeholders of policing including members of Canadian communities. As Stanko pointed out, contemporary police agencies require help “in understanding ‘what people want’ from policing, and public surveys help in doing this.”²¹ For the purpose of the study, in addition to members of the public, stakeholders of policing also included police leaders and members of police governance authorities, as well as elected municipal officials and senior public servants of municipal and provincial governments; all of whom have an interest, albeit from different perspectives, in the performance of their police.

Given that the focus of the study had not previously been studied in Canada, the purpose of the study was exploratory; that is, the purpose was to acquire knowledge and a better understanding of the issue; to provide a foundation – a prototype – for future research and to develop methodology for subsequent studies. In particular, it was necessary to narrow down the potentially numerous factors to consider when assessing police performance before embarking on future research with regard to the organisational performance of Canadian police. It was intended that the findings would be used not only to evaluate police agencies reactively but also to form a template for proactively guiding strategic change and the continuous improvement of Canadian policing.

The dissertation is organised into six chapters. Chapter 1 first outlines the rationale, the scope and the objectives of the study and then presents the research questions to be answered. Chapter 2 provides a review of the extant literature on policing issues that are examined by this study. It briefly compares traditional-policing with contemporary-policing and considers the environmental influences, in particular that of the public sector reform movement, which have driven the need for a strategic

²¹E. A. Stanko, “Improving Policing through Research,” *Policing: A Journal of Policy and Practice*, Vol. 3, No. 4 (2009), 307.

performance management regime. Following this, is an examination of the literature relative to policing, the public sector and the private sector to determine which elements of strategic performance management might be applicable to the performance measurement of contemporary-policing. The resulting literature-based framework guided the design of the online stakeholder survey used to collect the data necessary for enabling the identification of CSSFs.

The overall methodology of the study, including the design and content of the online survey is outlined in Chapter 3. This includes a detailed description of the survey's construction, which was grounded in the literature. Chapter 4, by way of narrative and appropriate tables, provides the analysis of data generated by the survey.

This provides the foundation for Chapter 5, which discusses the implications of the analysis in relation to the five research questions, as well as relating the data to the extant literature. Chapter 5 also identifies findings of the study that reveal new knowledge relevant to contemporary police governance, oversight, leadership and management. Chapter 6 provides a summary of the study and outlines the necessary next steps as indicated by the findings. Specific recommendations are also made in Chapter 6 to aid the leadership and management of police organizations with regard to organisational performance as well as recommendations for future research.

2. LITERATURE REVIEW

The extant contemporary-policing literature is elaborate and substantially influenced not only by the evolution of the public sector over the past 20-30 years but also by strategies, systems and practices of the private sector. Extensive literature addresses the evolution of policing, in particular the concept of community-policing, as well as the challenges and solutions identified related to its implementation, management and sustainability. However, most of the literature and research is United States (U.S.) centric because, over time, considerable funding has been provided by the U.S. government for this purpose. A second major source of literature is found in the United Kingdom (U.K.) where the central government has also provided substantial funding for policing research. While there is an increasing base of Canadian literature and research with respect to policing, it is small when compared to the U.K. and the U.S. However, the paucity of Canadian policing literature, although perhaps regrettable from a Canadian perspective, does not necessarily present a problem when reviewing police practices and public sector practices overall. This is because even though there are some differences, in general, the policing environment and practices in the U.S., the U.K. and Canada are broadly similar. Furthermore, it is possible to find innovative practices in another country that are worthy of Canadian consideration, emulation or adaptation.

In the context of strategic management and performance measurement in the public sector generally, and as applied in the police environment specifically, a number of authors and researchers are pre-eminent. They include David Ammons, David Bayley, Mark Moore, Harry Hatry, George Kelling, David Kennedy, Herman Goldstein, Robert Trojanowicz, Bonnie Bucqueroux, Michael Porter, Tom Tyler, Stephen Mastrofski and Larry Hoover in the U.S. as well as Neil Carter, Rudolf Klein, Patricia Day, T. Waddington, Peter Neyroud, Andy Neely and Tony Butler in the U.K.

In 1999, the U.S. Department of Justice – National Institute of Justice initiated a process that brought numerous public sector performance management experts together

with policing experts to discuss the measurement and management of police organisational performance. The resulting substantial compendium of literature – *Measuring What Matters: Proceedings from the Policing Research Institute Meetings* – is considered influential work in this regard. Overall, the literature strongly emphasises the necessity to focus police practices on strategic outcome-based performance as opposed to the traditional focus on only outputs.¹ However, before discussing the necessary strategic approach, it is useful to review the evolution of modern policing, the iterations of which have ranged from the traditional models to the contemporary (community) policing model.

2.1: The evolution of modern policing

Since the establishment of the *modern policing* era in the mid-19th century,² police organisations have operated as paramilitary, bureaucratic structures where police officers have tended to function in a manner which was socially isolated from the community. As pointed out by leading authorities on the evolution of policing, such as Robert Trojanowicz and Bonnie Bucqueroux as well as George Kelling and Mark Moore, traditional models of policing with these characteristics have been problematic.³ Their argument centered on the idea that the traditional models were bureaucratic responses characterized by:

- rigid and centralised organisational controls;
- a tendency toward a functional structure with high degrees of specialization, isolationism and conservatism;
- a failure to be innovative;
- limited discretion afforded to employees;
- clearly defined lines of authority, responsibility and communication; and
- organisational inflexibility.

¹Refer to Table 1.1 for an explanation of differences between outputs and outcomes.

²The naissance of *modern policing* is considered to have been in London, U.K. in 1829 and in a few parts of eastern Canada as early as the 1840s.

³R. Trojanowicz and B. Bucqueroux, *Community-Policing: A Contemporary Perspective* (Cincinnati: Anderson, 1990); G. L. Kelling and M. H. Moore, *The Evolving Strategy of Policing. Perspectives on Policing, No. 4* (Washington: National Institute of Justice and Harvard University, 1988).

As such, traditional police departments⁴ were closed systems, described by Trojanowicz and Bucqueroux as “paternalistic hierarchies,”⁵ which used defensive strategies that ignored developments outside of the police domain and were thus unresponsive to the dynamic external environment.

According to David Kennedy and Mark Moore, traditional police culture, as it affects strategic management and organisational change, manifests itself as inertial pressures. These pressures make it difficult for police organisations to adapt their strategies and structures in response to environmental changes and, thus, impede its ability to achieve organisational change.⁶ In addition, they posited that a rational framework, such as that which is inherent in traditional-policing (i.e. quasi-military, bureaucratic and hierarchical), inhibits as well as discourages the participation and creative potential of employees with regard to influencing organisational adaptation and innovation.

Similarly, criminologist George Kelling, a pioneer in recognising the difficulties with traditional-policing, postulated that because the culture of traditional-policing was rooted in scientific management and a military command structure, which values and emphasises efficiency over effectiveness and stresses quantity rather than quality, the outcome performance of policing was not addressed and, thus, was essentially out of public view.⁷ Neil Carter, Rudolf Klein and Patricia Day were concerned that traditional

⁴While a few Canadian police organisations are still called police departments or police forces, since the advent of community-policing Canadian police organisations have increasingly called themselves police services to reflect the emphasis on service rather than identifying themselves as a bureaucratic department of government.

⁵Trojanowicz and Bucqueroux, *Community-Policing: A Contemporary Perspective*, 24.

⁶D. M. Kennedy and M. H. Moore, “Underwriting the Risky Investment in Community-Policing: What Social Science Should be doing to Evaluate Community-Policing,” in *Critical Issues in Policing: Contemporary Readings. Third Edition*, eds. R. G. Dunham and G. P. Alpert (Prospect Heights: Waveland, 1997), 469-488.

⁷G. L. Kelling, ‘Broken Windows’ and Police Discretion (Washington: U.S. Department of Justice-National Institute of Justice, October 1999).

indicators⁸ of performance had not helped to understand the impact of policing, because traditional-policing, rather than being focused on outcome performance, had been “steeped in the tradition that good performance depends primarily on inputs and processes.”⁹ For example, they explained, police budgets were often justified based on the notion that there was a direct relationship between the numbers of police officers and the crime rate, and, therefore, police governance authorities and police managers usually merely added resources such as personnel and various technologies in response to reports of increased crime.

2.1.1: The transition from traditional-policing to contemporary-policing

As numerous researchers and contemporary observers of the public sector and policing¹⁰ have pointed out, in contrast to the traditional model of policing, which casts the community as passive participants and the police as active participants, the real success of policing relies on mutually beneficial relationships and shared values with the community. These are developed through internal and external consultation, responsiveness, accountability, decentralisation of authority, the sharing of power both internally and externally as well as a results-based – outcome-based – focus rather than attention to only processes and outputs. Because of the realisation by scholars and progressive police leaders that there must be a better way to reduce crime and social disorder and, thus, contribute to the quality of community life, starting in the 1960s the community-policing model began to evolve. This model, by virtue of being open and participatory, breaks down the isolation and alienation inherent in traditional-policing.

⁸For this study, the terms *indicator* and *measure* are used differently. *Measure* is used in the context of that which can be “relatively unambiguously quantified.” Whereas, the term *indicator* is used “to tap concepts that are less directly quantifiable” (A. Bryman, *Social Research Methods: 2nd Edition* (Oxford, UK: Oxford University Press, 2004), 67).

⁹N. Carter, R. Klein and P. Day, *How Organisations Measure Success: The Use of Performance Indicators in Government* (London: Routledge, 1992), 54.

¹⁰This includes scholars such as George Kelling, James Wilson, David Kennedy, Mark Corriera, Jihong Zhao, Neil Carter, Rudolph Klein and Patricia Day, as well as David Osborne, Ted Gaebler, Larry Hoover and David Bayley.

For instance, as already noted, the success of contemporary-policing is dependent on a strong relationship with the community to prevent not only crime but also social disorder by enlisting the community as co-producers of justice. As Paul McKenna noted, implicit in the concept of the contemporary (community) policing model is that community wellness requires the co-production of social order.¹¹

Of note, historically the concept of social disorder with regard to police performance was not formally acknowledged as relevant to traditional-policing. It was not until George Kelling and James Wilson, in their seminal work – “Broken Windows: The police and neighborhood safety,” introduced the theory of ‘Broken Windows,’ that social disorder and crime, including the fear of crime, were strongly linked in a developmental sequence.¹² They described social disorder, which is sometimes referred to as public disorder, as including situations such as public drunkenness, causing a disturbance, graffiti, vandalism, noisy parties, rowdiness, people loitering in public places, noisy vehicles, abandoned vehicles, urinating in public, fighting, illegal dumping, traffic issues, abandoned buildings, loitering youth, garbage, public drug use and broken street lights. They determined that social disorder is a criminogenic factor and, thus, an item to be addressed by the community-policing model. Moreover, they maintained that untended social disorder leads to the breakdown of community controls. When that occurs, the quality of community life is threatened and customer satisfaction is in jeopardy.¹³

Mark Moore, David Thacher, Andrea Dodge and Tobias Moore stated that unlike the private sector, the delivery of quality and valued service, and thus customer satisfaction, is only strategically important to a police service as a stand-alone measure if

¹¹P. F. McKenna, *Foundations of Community-Policing in Canada* (Scarborough, ON: Pearson Education Canada, 2000).

¹²G. L. Kelling and J. Q. Wilson, “Broken Windows: The police and neighborhood safety,” *Atlantic Magazine* (March, 1982), 29-38.

¹³Ibid.

the collective – the community – agrees it is important. That is, does the police agency meet the communities’ collective expectations? Community consultation, cooperation and feedback are, therefore, essential because the mission, and thus the strategic direction of the organisation, must be the expression of “a collectively defined aggregate purpose, not an individually valued transaction.”¹⁴ This approach requires not only different performance indicators to those traditionally used, but also a different process to determine them; in particular, it requires engagement with the community as found in the contemporary-policing model.

The relationship of police with their respective communities is based on normative sponsorship theory¹⁵ and critical social theory.¹⁶ These are founded not only on mutual respect and trust but also on the acknowledgement that the community is a stakeholder in community safety. It is, after all, the enhancement of community safety, and, thus, the quality of life in communities, that can be considered the ultimate goal of contemporary-policing. The assessment of contemporary-policing must, therefore, focus on the contribution that police organisations make to justice and the quality of life as well as the extent to which police promote non-criminal options.

To further this point, William Geller and Guy Swanger argued what is important in the context of community-policing and, thus, what should be measured by police, is the contribution police make to “community safety and fear reduction through both criminal justice and non-criminal justice tactics.”¹⁷ This is contrary to the reactive model

¹⁴M. Moore, D. Thacher, A. Dodge and T. Moore, *Recognizing Value in Policing: The Challenge of Measuring Police Performance* (Washington: PERF, 2002), 31-32.

¹⁵*Normative sponsorship theory* assumes most people are of good will and that they will cooperate with others to facilitate the building of consensus to satisfy their needs. The more the groups have in common with respect to values, norms and beliefs the more they will be supportive of activities to improve their communities (C. Sower, *Community Involvement*, (Glencoe, IL: Free Press, 1957).

¹⁶*Critical social theory* is defined as practical social science that inspires people to become socially active to correct their socio-economic and political circumstances to satisfy their unmet needs (B. Fay, *Critical Social Science: Liberation and its limits* (Ithaca, NY: Cornell University Press, 1987); B. Fay, *Social Theory and Political Practice* (London, George Allen and Unwin Publishers, 1984).

¹⁷W. A. Geller and G. Swanger, *Managing Innovation in Policing: The Untapped Potential of the Middle Manager* (Washington: PERF, 1995), 151.

of traditional-policing, which placed a higher priority on responding to crime than on social order maintenance and non-emergency services. Traditional-policing was, as Stuart Sheingold explained, “biased toward symptomatic reactions to what might well be underlying structural problems”¹⁸ rather than addressing those problems.

On the other hand, it is a basic tenet of community-policing – contemporary-policing – that crime can be “prevented if the conditions leading to [crime] can be identified and the potential offenders dissuaded from pursuing the crime.”¹⁹ From the perspective of Michael Tonry and David Farrington, “the ultimate bottom-line of crime prevention evaluation – that which practitioners and policy makers as ‘consumers’ of evaluation are supremely interested in – is the achievement of reductions in the occurrence of crime.”²⁰ As David Carter explained, in the contemporary-policing environment this is achieved by balancing “traditional foci with those activities that have not traditionally been seen as police responsibilities.”²¹ For instance, he said, the acceptance by police of numerous non-traditional quality of life activities within the scope of community-policing, such as:

- the reduction of victimization;
- the resolution of conflicts;
- traffic flow in neighbourhoods;
- the removal of abandoned cars;
- the enforcement of alcohol, health and safety regulations;
- dealing with neighbourhood decay and unsightliness;
- street maintenance;
- disorder in public parks; and
- the reduction of the fear of crime and social disorder,

¹⁸S. A. Sheingold, “Constituent Expectations of the Police and Police Expectations of the Constituents,” in *Measuring What Matters: Proceedings from the Policing Research Institute Meetings*, ed. R. H. Langworthy (Washington: U.S. Department of Justice - National Institute of Justice, 1999), 190.

¹⁹A. Blumstein, “Measuring what matters in Policing: The police and measurement of their impact,” in *Measuring What Matters: Proceedings from the Policing Research Meetings*, ed. R. H. Langworthy (US Department of Justice - National Institute of Justice, 1999), 5.

²⁰M. Tonry and D. P. Farrington, *Building a Safer Society: Strategic Approaches to Crime Prevention* (Chicago: University of Chicago Press, 1995), 597.

²¹D. L. Carter, “Measuring Quality: The Scope of Community-Policing,” in *Quantifying Quality in Policing*, ed. L. T. Hoover (Washington: PERF, 1996), 81.

has raised communities' expectations of their local police.²²

This has ramifications for the strategic management and performance measurement of police organisations. For instance, in the contemporary environment, although arrests are still an important tactic to achieve crime reduction and possibly crime prevention, police, as Geoffrey Alpert and Mark Moore stated, are also expected to include "a variety of civil actions"²³ as well as mobilising the community and other public sector agencies to reduce criminogenic conditions. That is, social disorder as well as crime requires police attention. Police, therefore, must be co-active, proactive, interactive and preventative instead of being only reactive and reliant on crime control.²⁴

In general, the success of contemporary-policing depends on whether conditions such as crime and social disorder, as well as the perception of the presence of crime and social disorder, improve in neighbourhoods subsequent to police intervention. Because contemporary-policing is less about doing *for* the community and more about building and improving community capacity by working *with* the community, police officers must have the ability to be community catalysts in order to resolve community(s) problems. This must be achieved through establishment of mutually beneficial relationships. Moreover, by accommodating the "cultural and environmental uniqueness"²⁵ of a community, police officers can, in order to meet community needs, establish a shared identity that will "facilitate the development of shared goals and objectives."²⁶

The literature is clear that shifting a police organisation to a culture of contemporary-policing and, thus, toward a culture based on quality and value, requires

²²Ibid, 82.

²³G. P. Alpert and M. H. Moore, "Measuring Police Performance in the New Paradigm of Policing, in *Critical Issues in Policing: Contemporary Readings. 3rd Edition*, eds. R. G. Dunham and G. P. Alpert (Prospect Heights, IL: Waveland Press, 1997), 269-270.

²⁴G. Corder and K. E. Scarborough, *Police Administration: 7th Edition* (New Providence, NJ: Anderson Publishing, 2010).

²⁵D. E. Duffee, R. Fluellen and T. Roscoe, "Constituency Building and Urban Community-Policing," in *Measuring What Matters: Proceedings from the Policing Research Meetings*, ed. R. H. Langworthy (Washington: United States Department of Justice-National Institute of Justice, 1999), 111.

²⁶Ibid.

the integration of the Fundamental Principles of Contemporary-Policing (**Table 2.1**) into all aspects of a police organisation including the measurement and management of organisational performance.

Although community-policing had its roots in the 1960s, the transition from the traditional-policing model received added impetus in the 1980s with the advent of substantial reforms across the public sector. According to David Osborne and Ted Gaebler, in their seminal work *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, public sector reform²⁷ emerged when the concerns of taxpayers about what is achieved with public funds – the outcome of all activities – not only increased demand for public services, but also significantly increased public expectations of equity, fairness, responsiveness, accountability and value-for-money²⁸ with respect to public services.²⁹ Consequently, to satisfy customers and clients³⁰ and their expectations of quality and valued service, the public sector began to implement private sector performance-based management practices, such as value added management, corporate re-engineering, Total Quality (TQ) and strategic leadership and management. These approaches focused attention on measurement³¹ to improve the management and, thus, the performance of government. That is, the purpose was to increase police accountability and reduce the cost of public sector services.

²⁷Public sector reform is also known as *NPM (New Public Management)*, *the reinvention of government* and *managerialism*. In some policing literature, it is referred to as *new 'police' management* given the impact on the evolution of policing in the contemporary environment.

²⁸Starting in the 1980s, the thrust of the value-for-money movement in British policing was to “energize the principles of NPM and institutionalize the performance culture [of police services]” (F. Leishman, B. Loveday and S. P. Savage, “Introduction: Core Issues in Policing Revisited,” in *Core Issues in Policing: 2nd Edition*, eds. F. Leishman, B. Loveday and S. Savage (Harlow, UK: Pearson Education, 2000, 1).

²⁹D. Osborne and T. Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector* (Don Mills, ON: Addison-Wesley, 1992).

³⁰For the purpose of this study, a *customer* or *client* is anyone, internally or externally, who receives or uses a service or product. The terms *customer* and *client* will be used interchangeably.

³¹*Measurement* is about quantifying, counting and assigning meaningful scores to variations in some phenomenon using valid and reliable methods (E. R. Maguire and C. D. Uchida, “Measurement and Explanation in the Comparative Study of American Police Organizations,” in *Measurement and Analysis of Crime and Justice. Volume 4* (Washington, US: Department of Justice-National Institute of Justice, Office of Justice Programs, 2000, 497).

Table 2.1: The fundamental principles of contemporary-policing

- due process, equity and fairness;
- ethical practice;
- community confidence and trust;
- responsive to the environment;
- a customer and client focus;
- consultation and collaboration with the community;
- quality and valued customer/client service;
- continuous evaluation, continuous improvement and change;
- teamwork;
- decentralization of authority and decision making;
- total involvement;
- participative leadership;
- increased communication;
- internal and external alignment; and
- outcome focused.

Dantzker, 1999; Hoover, 1996; Swanson, Territo and Taylor, 1998; Carter, Klein and Day, 1992; Tyler, 2004; Tyler, 1990; Kennedy and Moore, 1997.

The various strategic business practices and contemporary management philosophies of the private sector have had a significant effect on the evolution of policing. David Carter maintained that the impact of the private sector quality movement has been such that community-policing, when fully implemented, can be considered the “application of quality management to police organisations”³² for the purpose of maximizing service and achieving value-for-money. Similarly, Kenneth Peak and Ronald Glensor viewed TQ as a means for police organisations to meet the expectations of effectiveness, efficiency and accountability; although these originated many years ago in the private sector, they are now expected of public sector agencies including police services.³³

2.2: The strategic approach to performance management

According to de Waal, a strategic performance management system is one in which the formal procedures that collect, analyse and report performance information, which is used by organisation members to steer and control business activities, are organized in such a way that everybody in the organization strives towards achieving the strategic objectives of that organization.³⁴

Strategic performance management, and thus performance measurement, is essential in the contemporary business environment. However, it can only be achieved in the public sector when performance data are integrated into the organisational decision-making processes in order 1) to achieve continuous organisational improvement and 2) to enable rational decisions to be made about where to spend public money. Hatry maintained that performance indicators should be selected for the purpose of extracting and analyzing performance to allow causal analysis and interpretation, as opposed to being stand-alone data.³⁵ This is necessary so that decision-makers are better informed to

³²Carter, “Measuring Quality: The Scope of Community-Policing,” 79.

³³K. J. Peak and R. W. Glensor, *Community-Policing and Problem Solving: Strategies and Practices* (Upper Saddle River: Prentice Hall, 1999).

³⁴de Waal, *Strategic Performance Management: A Management and Behavioural Approach*, 32.

³⁵Hatry, *Performance Measurement: Getting Results*.

lead, manage and assign resources to achieve organisational goals, and thus satisfy clients. Larry Hoover cautioned that organisational performance measurement must be constant as well as routine and be used to improve processes of the organisation rather than to judge individual employees. He cautioned that when performance measurement intended to improve organisational performance is mixed with measurements designed to judge employees then both purposes are compromised.³⁶

The numerous benefits of strategic performance measurement include improved internal and external communication about the strategic direction, the results achieved and the progress in achieving organisational goals. However, when an organisation uses too many indicators of performance, the advantages of adopting a performance management strategy can be reduced. The selection of only the most appropriate factors and indicators of outcome performance is, therefore, critical. Ronald Nyhan and Herbert Marlowe cautioned that only the minimum number necessary should be used so that they are understandable and, more importantly, useable.³⁷ For instance, according to Robert Knowling, a strategically managed organisation should be aligned around three to five key performance metrics which, when aggregated, define the degree of organisational success from both the customers' and the organisation's perspective.³⁸

David Ammons recommended that these indicators should be more than "customer sensitive, emphasizing effectiveness in meeting customer expectations as well as efficiency in service delivery."³⁹ They should also, he said, measure a specific aspect

³⁶L. T. Hoover, "Translating Total Quality Management from the Private Sector to Policing," in *Quantifying Quality in Policing*, ed. L. T. Hoover (Washington: PERF, 1996), 1-22; D. H. Bayley, "Measuring Overall Effectiveness or, Police Force Show and Tell," in *Quantifying Quality in Policing*, ed. L. T. Hoover (Washington: PERF, 1996), 6.

³⁷R. C. Nyhan and H. A. Marlowe, Jr., "Performance Measurement in the Public Sector: Challenges and Opportunities," *Public Productivity and Management Review*, Vol. 18, No. 4 (1995), 333-348.

³⁸R. E. Knowling, Jr., "Leading with Vision, Strategy and Values," in *Leading for Innovation and Organizing for Results*, eds. F. Hesselbein, M. Goldsmith, and I. Somerville (New York: Jossey Bass, 2002), 182-183.

³⁹D. N. Ammons, *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards, 2nd Edition* (London: UK, Sage Publications, 2001), 22-23.

of outcome performance which can then be used with other relevant performance indicators to assess the status of that outcome. It is the measurement and subsequent analyses of these indicators that drives the organisation's strategy and decision-making. Performance metrics must be selected and designed such that they can be disaggregated in order to be meaningful to employees and supervisors who can then relate what they do on a daily basis to the "high corporate metric."⁴⁰ Consultation and agreement between management, employees and stakeholders are, therefore, necessary to establish a balanced set of appropriate key performance indicators that focus on the quality of services and organisational outcomes as opposed to just reporting the inputs used or the outputs generated.

Police organisations, as Trojanowicz and Bucqueroux observed, "must not only change the way they think, but the way they act"⁴¹ if they are truly committed to change. That is, police leaders must think and act strategically. For instance, if police organisations are to move successfully to the contemporary-policing model, police leaders must act strategically to change not only human resource management practices, work structures, reward systems, information systems, and decision-making processes, but they must also be able to learn and improve continuously by collecting, as well as interpreting, relevant data. These data must include information obtained from the community regarding their perceptions of the organisational performance of their local police;⁴² in other words, their perception of the outcome of police activities.

Community-policing, as already mentioned, is driven by the demands of the customer and, as such, should be concerned with providing valued and quality service. Furthermore, inherent in the community-policing model is the necessity for

⁴⁰Knowling, Jr., "Leading with Vision, Strategy and Values," 182-183.

⁴¹Trojanowicz and Bucqueroux, *Community-Policing: A Contemporary Perspective*, 7.

⁴²In the context of this study, *local police* is the police agency that directly serves the municipality, the community, neighbourhood or the rural area. This might be a locally established and governed police agency or it might be a detachment of a provincial police agency (e.g., the Ontario Provincial Police, the RCMP, the Royal Newfoundland Constabulary or the Sureté du Quebec).

organisational attention to the measurement of performance and the implementation of strategic performance management systems. The purpose is to produce actionable data that are easily accessible, useable and useful to those who make decisions. The desired outputs and outcomes must be clearly identified and developed, and their relative importance established so that the quality and perceived value of the outputs and outcomes is monitored and measured for the purpose of continuous organisational improvement. In a service-delivery model based on quality and valued services, such as community-policing, continuous improvement of service delivery and performance measurement are unified concepts. McDavid and Hawthorn pointed out that even though accountability by means of reporting to the public is an important element of performance measurement, the primary purpose should be improvement of organisational performance.⁴³

Joseph Wholey and Harry Hatry stated that although “[r]egular monitoring of service quality and program results is a key component of informed public management,”⁴⁴ an organisation does not have to be a TQ⁴⁵ organisation to realise substantial benefit from implementing and using performance measures. However, they added, if leaders of the organisation have not embraced the concept of TQ, then strategic performance management will have difficulty flourishing. Leaders of outcome-focused organisations must, therefore:

- ensure the organisation’s mission, ... is focused on results and is accepted and communicated broadly;
- ensure that performance appraisals of employees, in particular managers, include the assessment of progress in managing for results;
- support experimentation and innovation;
- lead by example;

⁴³McDavid and Hawthorn, *Program Evaluation and Performance Measurement: An Introduction to Practice*, 313.

⁴⁴J. S. Wholey and H. P. Hatry, “The Case for Performance Monitoring,” *Public Administration Review*, Vol. 52, No. 6 (1992), 604.

⁴⁵The author realises that TQ and related terminology is considered dated in the context of contemporary management, however, the concept and the principles remain relevant.

- visibly and regularly assess the progress of managing for results;
- demonstrate sustained interest and personal involvement in results management;
- communicate performance expectations of employees and managers and then include these expectations in employee accountability documentation; and
- engage in partnerships with other departments and agencies in the pursuit of management for results.⁴⁶

In light of these requirements, there are some unique but surmountable challenges when applying performance management to public sector agencies such as policing. For example, as Rudolph Garrity pointed out, one challenge is the difficulty in articulating the bottom-line – the outcome – of public sector agencies.⁴⁷ This gives rise to further challenges with regard to the identification, and then the collection, of necessary organisational performance data. Another challenge is that there is often a failure to understand that when TQ is implemented, it must be applied strategically as a total organisational culture, as opposed to being implemented as just a program added to the existing organisational structure.

This is relevant to the present study because, as Trojanowicz and Bucqueroux stressed, it is important that community-policing is understood as the dominant philosophy of a contemporary police service and that this philosophy must be operationalised through an organisational strategy rather than as a specific program, tactic, technique or “an add-on, deploying a handful of [community-policing officers].”⁴⁸ Unfortunately, in police organisations this has often not been the case. This view is supported, at least in part, by two Canadian studies that indicated two likely reasons for the incomplete evolution of community-policing in Canada were the failure:

1. to manage human resources strategically;⁴⁹ and
2. to strategically manage organisational performance congruent with an

⁴⁶Report of the Auditor General of Canada: Moving Toward Managing for Results, Chapter. 11. para. 11.45.

⁴⁷R. B. Garrity, “Total Quality Management: An opportunity for high performance in federal organisations,” *Public Administration Quarterly*, Vol. 16, No. 4 (1993), 430.

⁴⁸Trojanowicz and Bucqueroux, *Community-Policing: A Contemporary Perspective*, 6.

⁴⁹T. G. Coleman, “A Study of the Relationship in Canadian Police Services between Strategic Human Resource Management and Contemporary-Policing” (University of Regina, Canada: Unpublished master’s thesis, 2002).

organisational strategy.⁵⁰

The 1993 Gore Report, with respect to public sector reform in the United States, recommended that public sector organisations could improve outcome performance by taking a strategic approach to management.⁵¹ Michael Porter, an authority on strategic planning and strategic management, emphasised that even though the development of a clear organisational strategy is often not straightforward and requires strong leadership, a strategic approach is critical if an organisation is to achieve superior performance.⁵² Moore and Trojanowicz explained that the necessary strategic approach is achieved when “the executive [of the police service] discovers the best way to use [the] organisation to meet the challenges or exploit the opportunities of the environment.”⁵³ Strategic management, according to Janet Vinzant and Douglas Vinzant, is a “comprehensive management approach that helps organisations align organisational direction with organisational goals to accomplish strategic change”⁵⁴ through the establishment and implementation of a corporate strategy.

A corporate strategy is important to a police organisation because it not only enables internal understanding of the mission and organisational objectives, but also communicates to those outside the organisation what the organisation proposes to do and how it will be achieved. It also provides the foundation for strategic performance measurement and management. Consequently, as Osborne and Gaebler identified, police leaders in collaboration with the community and employees must establish a clear

⁵⁰T. G. Coleman, *A Study of Strategic Management and Performance Measurement in Canadian Police Organisations* (University of Regina, Canada: Unpublished master’s thesis, 2006); T. G. Coleman, “Managing strategic knowledge in policing: do police leaders have sufficient knowledge about organisational performance to make informed strategic decisions?” *Police Practice and Research: An International Journal*, Vol. 9, No. 4 (2008), 307-322.

⁵¹A. Gore, *Creating a government that works better and Costs Less: A Report of the National Performance Review* (New York: London House, 1993).

⁵²M. E. Porter, “What is Strategy?” *Harvard Business Review*, HBR ON-Point No 4134 (November-December, 1996).

⁵³M. H. Moore and R. C. Trojanowicz, *Corporate Strategies for Policing. Perspectives on Policing*, No. 6 (Washington: Harvard University and National Institute of Justice, 1988), 2.

⁵⁴J. C. Vinzant and D. H. Vinzant, “Strategic Management Spin-offs of the Deming Approach,” *Journal of Management History*, Vol. 5, No. 8 (1999), 516.

strategic direction through a decentralised and results-oriented organisational mission used to develop budgets that fund outcomes rather than outputs⁵⁵ (**Table 1.1**). This is important because if the management control system is incompatible with the corporate strategy, and thus the appropriate information is not available to decision-makers, the strategy is likely to fail. If that occurs, the result will be that the desired performance is not achieved.

Strategic performance management, in contrast to output-focused traditional performance management, is outcome-focused with a future perspective that is customer driven and concerned about the achievement of strategic goals. This difference is important to police leaders because, as David Bayley pointed out, they are frequently pushed internally and externally to demonstrate that their organisations are led and managed effectively and are thus delivering value-for-money.⁵⁶ Such accountability is dependent on measurement systems that not only record the activities and outcomes of the organisation but also facilitate analyses and informed decision-making. It is strategic performance management that enables police leaders to embrace political accountability for achieving goals and objectives through the development of measurable goals based on their mission, as well as establishing internal measurement systems to ensure all employees are accountable and working towards the achievement of organisational goals.

Although public sector organisations have usually only had a *cost-line*, which made it difficult to assess compromises between service improvement and cost reduction, according to Carter, Klein and Day the evolution of strategic performance measurement in the public sector has been driven by the desire of the public not only to control public expenditure, but also to ensure managerial competence and increased accountability.⁵⁷ In

⁵⁵Osborne and Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, 161.

⁵⁶Bayley, "Measuring Overall Effectiveness or, Police Force Show and Tell," 39.

⁵⁷Carter, Klein and Day, *How Organisations Measure Success: The Use of Performance Indicators in Government*, 180.

addition to facilitating this by the maintenance of meaningful links between the organisation's vision, mission and strategic goals, strategic performance management also enables the desired accountability and facilitates decision making. Overall, it provides for effective planning, budgeting, program evaluation, the appropriate allocation of resources, the direction of operations, internal and external communication about the effort expended by the agency for the financial investment and the provision of information to the public about what is achieved with their taxes. Taken as a whole, it improves service delivery and customer satisfaction. For organisations such as police organisations which rely on quality and valued service for their legitimacy⁵⁸ and, thus, their success, strategic performance management makes a positive difference.

Notwithstanding the aforementioned, the implementation of strategic performance measurement and management in the public sector has typically been complicated by several factors beyond mere selection of indicators or data collection methods. For example, a Conference Board study, cited by Stephen Gates, found that “cultural and political resistance [to strategic performance measurement was] more problematic than expected.”⁵⁹ Other studies have also shown that while leaders and managers have often agreed that performance measures are necessary, very few of their organisations had the necessary performance measurement systems in place.

The public sector has not traditionally used data for the purpose of decision-making, planning for the future, or for providing indication of when changes are necessary. For instance, David Ammons noted, that although some municipalities had performance measurement systems, many of these only answered the question of “how much” – workload and outputs. They did not address the “how well” – the effectiveness,

⁵⁸*Legitimacy* is achieved when the community feels an obligation to obey the law and to defer to decisions made by legal authorities (T. Tyler and J. Fagan, “Legitimacy and Cooperation: Why Do People Help the Police Fight Crime in Their Communities?” *Ohio State Journal of Criminal Law*, Vol. 6 (2008), 231).

⁵⁹S. Gates, *Aligning Strategic Performance Measures and Results: Report R-1261-99-RR* (Conference Board, October 1999), 6.

or the “how” – the efficiency. This deficiency, according to Ammons, was compounded when organisations attached labels of efficiency or effectiveness to low-level performance indicators.⁶⁰ This, he concluded, was because although some managers understood the need for measures of effectiveness and efficiency, these same managers appeared to avoid the complexity and costs of collecting and analyzing the appropriate necessary measures.⁶¹

Notwithstanding that there seems to have been an apparent reluctance to embrace performance management, and even though the public sector has not traditionally used data for the purpose of decision-making and for looking forward, a comprehensive and strategic measurement system that integrates the collection, analysis, and application of data into all aspects of the organisation is necessary to provide an indication of when organisational changes are necessary. As Hatry explained, adopting a system such as this will enable the alignment and incorporation of quality systems to “permit governments to identify problem areas and, as corrective actions are taken, to detect the extent to which improvements have occurred.”⁶²

There exists a fundamental difference, though, between organisations which manufacture a product and those which provide a service. While defects in performance are relatively simple to identify and rectify in the manufacturing sector, and quality is defined essentially to be the lack of defects, the determination of quality and valued service in policing is situational and, therefore, variable depending on the context within which the service is provided. This can present challenges to implementing and managing a strategic approach to police performance management. Since the external environment has considerable influence over what police are required to do and how well

⁶⁰These are usually easily determined *output* measures.

⁶¹D. N. Ammons, “Overcoming the inadequacies of performance measurement in local government: the case of libraries and leisure services,” *Public Administration Review*, Vol. 55, No. 1 (January-February 1995), 37-47.

⁶²H. P. Hatry, “The status of productivity measurement in the public sector,” *Public Administration Review*, Vol. 38 (January-February 1978), 28.

they can do it, the ownership of performance, in particular the measurements of effectiveness and the achievement of outcomes, has been difficult to attribute to specific factors.

This is complicated by the fact that many conditions which lead to crime and social disorder are beyond the control and capacity of police. For example, factors within a community which cause a variance in the crime rate are structural, economic, social and political. Stephen Mastrofski concluded that these factors, which include demography, economy, social inequality, unemployment, low education levels, the prevalence of minorities, family and child rearing styles, households headed by single women, household size, home ownership, and a “variety of social and political forces”⁶³ encountered in a community, can predict crime rates in large cities 80%-90% of the time. As a result, in the contemporary environment police are expected to perform numerous functions other than addressing crime. Thus, Mastrofski suggested, in the contemporary-policing environment, this should be reflected in the design and implementation of strategic performance measurement systems.

2.2.1: The concept of Critical Strategic Success Factors

Although designs of strategic performance measurement systems vary, the present study involved the identification of critical strategic success factors (CSSFs) as a first step in the establishment of a relevant contemporary measurement system. The concept of success factors originated in the private sector during the 1960s as a result of work by D. Ronald Daniel.

He said that,

in reporting internal data, a company's information system must be discriminating and selective. It should focus on ‘success factors.’ In most industries there are usually three to six factors that determine success; these

⁶³S. D. Mastrofski, “Measuring Police Performance in Public Encounters,” in *Quantifying Quality in Policing*, ed. L. T. Hoover (Washington: PERF, 1996), 209.

key jobs must be done exceedingly well for a company to be successful.⁶⁴

In the late 1970s, John Rockhart furthered this concept by advocating that critical success factors be used to improve management control and information systems.⁶⁵ He suggested they be targeted on the few key areas where success is important, if not critical, for the organisation to succeed and to develop.⁶⁶ de Waal took this concept further.⁶⁷ He said that the use of critical success factors (CSFs), along with appropriate key performance indicators (KPIs), “enables the measurement, and thus the control, of strategic objectives.”⁶⁸ He defined a CSF as:

A qualitative description of an element of the [organisational] strategy in which the organisation has to excel in order to be successful.⁶⁹

He further explained that it is the appropriate KPIs that make a CSF quantifiable. The “key idea,” he said, “is that a limited number of CSFs and KPIs provide the link between the stages in the strategic management process.”⁷⁰ de Waal stressed that CSFs should be kept to the minimum necessary to reflect key organisational objectives and that KPIs should be no more than three for each CSF. While the present study is only concerned about CSFs, this reinforces the need to be parsimonious with CSFs. In doing so, strategic action plans are then focused on the CSFs. Furthermore, a clear set of CSFs enables effective and efficient communication both internally as well as externally.

de Waal, in speaking to the link between the private sector and the public sector, pointed out that both sectors are expected to “show added value.”⁷¹ Performance management “can be used in the public sector as long as the specific features of this

⁶⁴D. R. Daniel, “Management Information Crisis,” *Harvard Business Review*, Vol. 39, No. 5 (September/October), 116.

⁶⁵J. Rockhart, “Chief Executives define their own data needs,” *Harvard Business Review*, Vol. 57, No. 2 (March/April), 81-93.

⁶⁶*Ibid*, 85.

⁶⁷de Waal, *Strategic Performance Management: A Management and Behavioural Approach*.

⁶⁸*Ibid*, 29.

⁶⁹*Ibid*, 113.

⁷⁰*Ibid*, 322.

⁷¹*Ibid*, 347.

sector are taken into account.”⁷² The application of outcome-based CSFs indicates the effects that the products and services of public sector organisations have on society. They “are typically the yardstick of the success of the policies of the public [sector] organisations.”⁷³ Even though de Waal discussed CSFs at both the operational and strategic levels, this study uses the term Critical Strategic Success Factors (CSSFs) to emphasise the study’s focus on the organisational – the strategic – level.

2.3: Performance measurement and management in the contemporary police environment

The operation, and thus the leadership and management, of a police organisation is influenced by the external environment. That includes the evolution of the public sector of which police agencies are one part. As previously discussed, the practices of the private sector and the changes to the public sector are informative with regard to determining what should be considered in the police environment with regard to strategic performance measurement and management. However, before exploring the elements of a contemporary strategic performance measurement and management regime, it is useful to consider the importance of performance measurement and management. Michael Pidd was clear about his support for performance management in the provision of public services. It is, he said, “part of the contract between governors and governed.”⁷⁴ Fiorenzo Franceschini, Maurizio Galetto and Domenico Maisano, speaking from a private sector perspective, provided a concise rationale for performance measurement. They declared, albeit at the operational level, that:

- performance measurement provides a structured approach for focusing on a program’s strategic plan, goals, and performance;
- measurements focus attention on what is to be accomplished and compels organizations to concentrate time, resources, and energy on achievement of

⁷²Ibid.

⁷³Ibid, 348.

⁷⁴M. Pidd, “Perversity in public service performance measurement,” in *Business Performance Management: Unifying Theory and Integrating Practice: 2nd Edition*, ed. A. Neely (Cambridge, UK: Cambridge University Press, 2007), 408.

objectives. Measurements provide feedback on progress toward objectives;

- performance measurement improves communication internally among employees, as well as externally between the organization and its customers and stakeholders. The emphasis on measuring and improving performance (*results-oriented management*) creates a new climate, affecting all the organizations aspects; and
- performance measurement helps justify programs and their costs. Measurements provide the demonstration of a program’s good performance and sustainable impacts with positive results, in order to support the decision making process.⁷⁵

As we have seen, a focus on quality and valued customer/client service is a fundamental principle of contemporary-policing (**Table 2.1**). According to Franceschini et al., “one of the most accredited models in literature for quality service evaluations” is the Parasuraman, Zeithaml and Berry (PZB) model.⁷⁶ The model identifies ten key elements – determinants – of service quality (**Table 2.2**).

According to Carolyn Brancato, performance indicators applicable to the public sector can be categorised as workload and productivity measures;⁷⁷ efficiency measures; or effectiveness – outcome – measures. They should be designed to address:

- the quality of the output(s);⁷⁸
- customer satisfaction and retention;⁷⁹
- the turn-over of employees; and
- the training and learning of employees.⁸⁰

The relevance and importance of movement to a strategic outcome focus congruent with the contemporary-policing model was reinforced by Carter, Klein and Day when they characterised successful reform in the public sector as evidenced by the presence of three critical and mutually dependant components:

⁷⁵F. Franceschini, M. Galetto and D. Maisano, *Management by Measurement: Key Indicators and Performance Measurement Systems* (New York: Springer, 2007), 111.

⁷⁶*Ibid*, 116.

⁷⁷Also called *output* measures. Although workload information indicates the amount of work performed or the amount of services received and, thus, can be of some value, it only reveals how much work was done. It does not indicate how well or how efficiently the work was completed.

⁷⁸The quality of the respective *output* will affect the quality and value of the *outcome*.

⁷⁹*Customer retention* in the context of the services delivered by a police organisation could be considered as the continued confidence, trust and support of the police organisation.

⁸⁰C. K. Brancato, *New Corporate Performance Measures*, (New York: The Conference Board, 1995), 9-10.

- the specification of objectives;
- the allocation of costs to activities/programs; and
- the development of [key] performance indicators and output measures sufficient to assess the degree of success in achieving agreed upon outcomes.⁸¹

Further support for the application of outcome-based performance measurement can be found in the public sectors of several countries. For example, in Australia, New Zealand, the United Kingdom, the United States and Canada, reformation of their public sectors has been characterised by a desire for outcome performance measurement, in particular with respect to the delivery of quality service and determining value-for-money. In 1995, the Canadian federal government recognised the public's demand for quality service with a "Declaration of Quality Service Principles."⁸² As the President of the Urban Institute stated, "[r]egularly measuring the outcomes of services provided by government to its citizens, and using those measures to improve outcomes, is as worthy a goal for the next millennium as it has been for this one."⁸³ As cited by Nyhan and Marlowe, the American Society of Public Administration (ASPA) expressed similar support in 1992 when they endorsed the development and adoption of outcome performance measures by all levels of government.⁸⁴

William Bratton, former Chief of the Los Angeles Police and former Commissioner of the New York Police Department, and William Andrews pointed out that an outcome focus facilitates police accountability to their public. They maintained that this is important for policing because, historically, the lack of accountability has been viewed as "a hallmark of police [organisations]."⁸⁵ Richard Common, Norman Flynn and Elizabeth Mellon observed that when an organisation focuses on outcomes, then the

⁸¹Carter, Klein and Day, *How Organisations Measure Success: The Use of Performance Indicators in Government*, 5.

⁸²Report of the Auditor General of Canada: Moving Toward Managing for Results, Chapter 11.

⁸³Hatry, *Performance Measurement: Getting Results*, xx.

⁸⁴Nyhan and Marlowe, Jr., "Performance Measurement in the Public Sector: Challenges and Opportunities," 333-348.

⁸⁵W. J. Bratton and W. Andrews, "Leading for Innovation and Results in Police Departments," in *Leading for Innovation and Organizing for Results*, eds. F. Hesselbein, M. Goldsmith and I. Somerville (New York: Jossey Bass, 2002), 260.

Table 2.2: The PZB model for service quality

Determinant	Description
Reliability	It involves consistency of performance and dependability; it means that the firm performs the service right the first time; it also means that the firm honors its promises.
Responsiveness	It concerns the willingness or readiness of employees to provide service; it involves timeliness of service.
Competence	It means possession of the required skills and knowledge to perform the service.
Access	It involves approachability and use of contact.
Courtesy	It involves politeness, respect, consideration, and friendliness of contact personnel.
Communication	It means keeping customers informed in language they can understand and listening to them.
Credibility	It involves trustworthiness, credibility, and honesty; it involves having the customer's best interest at heart.
Security	It is the freedom from danger, risk or doubt.
Understanding/Knowing the Customer	It involves making the effort to understand the customer's needs.
Tangibles	They include the physical evidence of the service.
A. Parasuraman, V. Zeithaml and L. Berry, "A Conceptual Model of Service Quality and Its Implications for Future Research," <i>Journal of Marketing</i> , Vol. 49 (Fall 1985), 41-50.	

process of agreeing on the desired results and the measurement of the results to improve performance as well as effectively reporting on overall outcome performance fosters the necessary organisational culture of accountability.⁸⁶ They argued that such accountability is further achieved by the decentralization of decision-making which is an important characteristic of public sector reform. That is, they said, those employees to whom decision-making has been delegated are held accountable to follow the strategy of the organisation and to achieve organisational goals through the appropriate and effective measurement of the various activities, programs and work units. These employees can then assess and report their contribution to the attainment of organisational goals such as the satisfaction of clients and consumers of services.

Even though most organisations, including those in the public sector, have traditionally focused on inputs, processes and outputs rather than on achieved outcomes, public sector reform and its integral focus on the end-results of organisational activities has created, according to Howard Rohm, “a new way of doing business.”⁸⁷ It requires the public sector to get “closer to the customer” and to put the “customer in the driver’s seat.”⁸⁸ Despite the necessity for probity and prudence, this approach encourages and facilitates the introduction of a systems-based approach so that desired results can be better identified and achieved.⁸⁹ Franceschini et al. maintained “interrelated processes must be identified and treated as a system.” Furthermore, they said, “organisations are more efficient when they use a systems [-based] approach.”⁹⁰

⁸⁶R. Common, N. Flynn and E. Mellon, *Managing Public Services: Competition and Decentralization* (Oxford, UK: Butterworth-Heinemann, 1992).

⁸⁷H. Rohm, (December, 1996), “Public Sector Performance Management in the USA. The Foundation for Performance Measurement,” 6 [Online]. Available: <http://www.fpm.com/script/UK/Dec96/961206.htm> [2010 August].

⁸⁸Osborne and Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, 167.

⁸⁹A. S. Dietz and O. G. Mink, “Police systems and systems thinking: An interpretive approach to understanding complexity,” *Journal of Police and Criminal Psychology*, Vol. 20, No. 1 (2005), 1-16.

⁹⁰Franceschini, Galetto and Maisano, *Management by Measurement: Key Indicators and Performance Measurement Systems*, 3.

However, as Norman Flynn observed, even though a focus on results leads to better results and enhances the external credibility of the organisation, it is staying within budget that is still far too often considered the most important element of success in the public sector.⁹¹ That is, a continuance of the traditional focus on inputs is still often the norm.

The continued use of performance indicators based on inputs, rather than on outcomes, is problematic in that not only does this ignore the quality of the output(s) and, thus, the outcome(s), there is also little incentive to strive for improved performance when organisations are funded based on inputs. On the other hand, as Osborne and Gaebler maintained, when performance is funded based on outcomes, organisations quickly focus on outcomes.⁹² Nonetheless, the focus on end-results can be complicated because, even though outcomes are the true measure of performance, outputs are sometimes easier to identify and measure. Moreover, because the identification and measurement of results in government are not as straightforward as in the private sector, it is sometimes necessary to use measurements of processes and outputs as proxy or intermediate measures of the ultimate outcome.

Regardless, it is still a problem when organisations measure only processes and outputs without an ultimate focus on outcomes. This is particularly true in the field of policing, which, scholars agree, has had difficulty in understanding and establishing relationships between inputs, processes, outputs and outcomes.⁹³ As Flynn observed, although it is “difficult to quantify quality”⁹⁴ in the public sector, this can change when public administrators, stakeholders, partners, elected officials and the public think in

⁹¹N. Flynn, *Public Sector Management: Third Edition* (Toronto, ON: Prentice Hall/Harvester Wheatsheaf, 1997).

⁹²Osborne and Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, 139.

⁹³D. W. Stephens, “Community Problem-Oriented Policing: Measuring Impacts,” in *Quantifying Quality in Policing*, ed. L. T. Hoover (Washington: PERF: 1996), 95-129.

⁹⁴Flynn, *Public Sector Management: Third Edition*, 43.

terms of outcomes rather than inputs. Osborne and Gaebler maintained that when outcome-focused performance measures are used in the public sector, the right questions are asked to redefine the problem such that it can be diagnosed from a different perspective. In other words, suitable solutions can be generated to meet the needs and expectations of the respective community.⁹⁵

While the public sector has different client/customer expectations, leadership, performance management strategies and organisational cultures than the private sector, the primary concern of the public is that they receive valued and quality service regardless of the provider. Even though the public does not generally make a distinction between public sector services and the services they receive from the private sector, due to an increased focus in the overall economy on quality and value they expect that the public sector will also deliver quality and valued service. Warren Friedman and Michael Clark declared that this is also true in policing due to the often-enthusiastic marketing of community-policing by police governance authorities and police leaders.⁹⁶ As a result, they argued, the transition to community-policing has not only changed public attitudes about policing but has increased the public's expectations of police performance. The public now expect and demand value as well as quality through client-focused services instead of the previous rigid bureaucratic-based systems and services of traditional-policing. Stan Gilmour summed it up in the policing context when he said, "policing is firstly a public commodity (by right) and secondly should meet the contestable service standards of private commerce (as a core responsibility)."⁹⁷ Consequently, strategic performance management in the environment of contemporary-policing must include

⁹⁵Osborne and Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, 147.

⁹⁶W. Friedman and M. Clark, "Community-Policing: What is the Community and What Can it Do?" in *Measuring What Matters: Proceedings from the Policing Research Meetings*, ed. R. H. Langworthy (Washington: United States Department of Justice-National Institute of Justice, 1999), 121-131.

⁹⁷S. Gilmour, "The Confident Constable: A Search for the Intense Simplicity of Trust?" *Policing: A Journal of Policy and Practice*, Vol. 4, No. 3 (2010), 220.

measurements of both value and quality.

It was Peter Drucker who identified the characteristics of quality in contemporary service-sector organisations, such as policing, as having:

- a clearly defined nature and scope of function, mission and activities;
- clearly established objectives and priorities;
- a concentration on established standards of performance derived from the most important objectives;
- audits of performance conducted regularly to ensure the management system is functioning properly; and
- the measurement of performance, analysis of results and subsequent work to correct deviations from established performance standards.⁹⁸

Consequently, these principles, which have been widely applied in the Total Quality (TQ) practices of the private sector and considered by Common, Flynn and Mellon an “acronym for good management,”⁹⁹ are now used in progressive elements of the public sector to address the demand for quality and valued public services.

2.3.1: Identification of measures and indicators for contemporary-policing

Although the appropriate manner of measuring police organisational performance has perplexed police practitioners for many years, increasingly, there has been agreement that the measurement of outputs alone is insufficient. Many authorities on policing in the United Kingdom (U.K.), the United States (U.S.) and Canada, notably Larry Hoover and David Bayley in the U.S., and Neil Carter, Rudolf Klein and Patricia Day in the U.K., concluded that traditional police organisations have focused almost entirely on the *processes* and *outputs* achieved through rigid adherence to bureaucratic processes and the finite measurement of easily tabulated and collected performance indicators.

These have included:

- the reported crime rate;
- the number of arrests made;
- crimes solved/cleared;
- the clearance rate per police officer;

⁹⁸P. F. Drucker, *Management: Tasks, Responsibilities and Practices* (New York: Harper and Row, 1975), 158-159.

⁹⁹Common, Flynn and Mellon, *Managing Public Services: Competition and Decentralization*, 112.

- response times;
- workloads of police officers; and
- traffic enforcement and charges laid.¹⁰⁰

However, they have argued that because police officers apply discretion to many of these activities, measurement is necessary beyond recording and relying on this type of data. Of relevance to the Canadian situation is that the commonly referenced publications of the Canadian Centre for Criminal Justice Statistics (CCJS)¹⁰¹ still use measures of police activities and performance based on inputs and outputs rather than a focus on outcomes as widely recommended in the literature. However, as Hoover pointed out, despite widespread media coverage and public interest in activity measures, enlightened police practitioners and scholars have criticised the traditional and simplistic tallies of outputs as being inadequate indicators of police effectiveness in the contemporary environment because they do not relate to the impact – the outcome – of police activities.¹⁰²

Because of the difficulty in determining the precise contribution police make to ensure safe communities and, thus, to the quality of community life, the selection of appropriate indicators in the contemporary-policing environment requires close attention. Previously, when the reported crime rate decreased, the time to respond to calls-for-service was reduced or the number of use-of-force incidents declined, the reaction by police leaders as well as the public was to conclude that the police organisation was performing well.

However, such traditional indicators of performance do not consider the aforementioned complexity of evaluating a contemporary police organisation. For example, as Tony Butler pointed out, the view held by many police leaders and managers that the main job of police is to catch criminals shows “a substantial lack of

¹⁰⁰Hoover, “Translating Total Quality Management from the Private Sector to Policing,” 37-54.

¹⁰¹Available at <http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=85F0033M&lang=eng>

¹⁰²Hoover, “Translating Total Quality Management from the Private Sector to Policing,” 1-22.

understanding of the social dimensions of the role of police.”¹⁰³ Consequently, by continuing to use traditional measures, police organisations are likely to work towards achieving goals that are not congruent with contemporary-policing. The challenge is that a comprehensive set of indicators for evaluating policing outcomes is difficult to design. Furthermore, some outcomes might be difficult to measure directly. Nevertheless, this can be overcome, in part, by using carefully selected indicators of output performance to assist on an aggregate basis in the measurement of outcome performance.

In order to move toward a contemporary performance measurement model, which considers the relevant factors and the appropriate performance indicators for contemporary-policing, it is useful to first review some traditional performance indicators and, then, to consider their limitations in the contemporary environment.¹⁰⁴ For example, as Carter, Klein and Day pointed out, *the cost per incident response* for ‘patrol’ is problematic in that responding to incidents is not the only function of ‘patrol’ and thus does not take into consideration the proactive aspects of ‘patrol.’¹⁰⁵ Just by decreasing the number of police officers on ‘patrol,’ the economy and efficiency can be increased but it might do nothing to maintain or increase effectiveness.¹⁰⁶ They also pointed out that an efficiency indicator of *cost per complaint received* is also flawed as it does not consider how and if complaints are resolved.¹⁰⁷ That is, how effective was the response? The effectiveness, or not, of the response can influence community perceptions, confidence and trust and, thus, affect the legitimacy of the police agency.¹⁰⁸

¹⁰³T. Butler, “Managing the Future: A Chief Constable’s View,” in *Core Issues in Policing: 2nd Edition*, eds. F. Leishman, B. Loveday and S. Savage (Harlow, England: Pearson Education, 2000), 313.

¹⁰⁴The data collected by Canadian police organisations and published by the Canadian Center for Justice Statistics are almost exclusively data derived from traditional output indicators.

¹⁰⁵Carter, Klein and Day, *How Organisations Measure Success: The Use of Performance Indicators in Government*.

¹⁰⁶Ibid.

¹⁰⁷*Complaints* in this context are *calls-for-service*.

¹⁰⁸T. R. Tyler, “Enhancing Police Legitimacy,” *The Annals of the American Academy of Political and Social Science*, Vol. 593 (May, 2004), 86.

Because, as David Bayley explained, the cost of personnel¹⁰⁹ account for 85-90% of the operating budgets of police organisations and because politicians, police associations/unions, and even the media as well as the public often use the number of police officers as a reference point, in the contemporary environment some human resource data have relevance to the analysis of performance and when determining performance differentials.¹¹⁰ For example, Carter, Klein and Day considered staff absenteeism and turnover useful indicators of low morale and possibly poor performance.¹¹¹ However, notwithstanding that the ratio of the number of police officers to the size of the population¹¹² has often been used as an indicator of a government's commitment to public safety, it is flawed as an outcome indicator.¹¹³ One reason is that the ratio of the number of police officers to the population fails to consider how many police officers are operational and how many are administrative. Another reason is that studies conducted in the 1970s, and cited by Bayley, failed to demonstrate that the number of police officers, the amount of money spent on policing, or the methods used by police actually have an effect on crime rates.¹¹⁴ Moreover, many positions in Canadian police organisations that were traditionally occupied by police officers are now staffed by a variety of specialists who are not police officers.

Overall, traditional measures of police performance based on the population size

¹⁰⁹Because in many police agencies functions historically performed by police officers are now often performed by support staff, this study will use the term *police personnel* when it refers to all employees of a police agency including police officers.

¹¹⁰D. H. Bayley, *Police for the Future* (New York: Oxford University Press, 1994), 6.

¹¹¹Carter, Klein and Day, *How Organisations Measure Success: The Use of Performance Indicators in Government*.

¹¹²This measure is used in Canada by the Canadian Centre for Justice Statistics (*Police Resources in Canada, 2009* (Ottawa: Canadian Centre for Justice Statistics, Statistics Canada, 2010)).

¹¹³For many years in Canada, there has been a concerted move to replace police officers in numerous functions with non-police officers. This includes, but is by no means limited to, communications officers and tactical/strategic analysts. However, because different police organisations have made these changes to different extents and at different rates, the ratio between police and non-police personnel can differ between police organizations (*Police Resources in Canada, 2009*). Therefore, this makes accurate and meaningful comparisons between police organisations difficult when based on a ratio that includes the number of police officers.

¹¹⁴Bayley, *Police for the Future*, 9.

of a community are not ideal; they are of questionable value because population size only provides a general indicator of demand for police services. To rely only on such rudimentary data is to use the size of the population (quantitative) as the main determinant of service demand rather than taking into account the nature of the population (qualitative). For example, as Ammons explained, the demand for service will vary between urban and rural areas and is dependent on the efforts of police, the socio-economic factors of the community, and the demographics as well as the geographics of the community and adjacent areas, the density of the population and the nature of the people being policed.¹¹⁵ These, Ammons pointed out, become far more relevant when a systems-based approach is used to measure police performance and determine the necessary police resources for a community instead of using a simplistic population count.¹¹⁶

While the ratios of *calls-for-service per officer* and the *arrests made per officer*¹¹⁷ might provide some improvement over the *police per population ratio* approach in that they provide service demand and workload information, they are also not considered good measures of police performance. For example, as Blumstein explained, the arrest rate can be influenced by the amount of attention and effort police put into the investigation of offences but it tells nothing about whether the community is any safer as result.¹¹⁸ Similarly, measures based on calls-for-service, such as *calls-for-service per officer*, are also problematic because not all calls-for-service or reported incidents require a police officer to attend. A communications officer or a report taker can handle some

¹¹⁵Ammons, *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards*, 2nd Edition, 303.

¹¹⁶Ibid.

¹¹⁷The Canadian Centre for Justice Statistics calculates and distributes the ratio of the total criminal code offences (excluding ‘traffic’ offences) reported in a jurisdiction to the number of police officers in that jurisdiction. It can be argued that this is not a useful benchmark. *Arrests per police officer* and *calls per police officer* are not collected by the Canadian Centre for Justice Statistics and, thus, are not easily shared between police services for benchmarking. This data, however, is collected internally by many Canadian police organisations.

¹¹⁸Blumstein, “Measuring what matters in Policing: The police and measurement of their impact,” 5.

situations on the telephone and, as Bayley pointed out, in some police jurisdictions not all calls-for-service are processed by a central dispatch.¹¹⁹ This can affect the recorded number of dispatched calls. In addition, police officers variously respond alone or with one or more other officers. Overall, a determination of the number of incidents handled by police first responders and, thus, a determination of their workload is not useful from an outcome perspective because the number of calls-for-service recorded by a communications and dispatch centre often does not take into account the ‘on-view’¹²⁰ and the necessary officer-generated proactive policing activities.

As Bayley pointed out, one of the most common, popular, and visible measures of police performance has traditionally been the *crime rate*.¹²¹ Vikki Dadds and Tammy Scheide observed that historic measures used to assess police performance, such as the *crime rate*, have matched the traditional interpretation of the police role; that is, a role narrowly defined in terms of crime and law enforcement-related activities.¹²² Although measures such as this have historically been the main source of information with which to evaluate police performance, it has arguably been at the expense of measures that are more meaningful. Furthermore, the continuing use of such traditional police performance indicators makes it difficult to determine the true nature and extent of the impact of police activity on the intended result – the outcome.¹²³ As a result, when using these types of indicators to manage organisational performance, “it is often difficult to find consistent improvement in police performance.”¹²⁴

¹¹⁹Bayley, *Police for the Future*, 6.

¹²⁰These are situations encountered by police officers during their work that have not yet been reported but are reported directly to the police officer during the encounter. They might also be criminal activity witnessed directly by a police officer.

¹²¹Bayley, “Measuring Overall Effectiveness or, Police Force Show and Tell,” 39.

¹²²V. Dadds and T. Scheide, (November, 2000). “No. 180 Police Performance and Activity Measurement,” *Trends and issues in crime and criminal justice*, Australian Institute of Justice [Online]. Available: <http://www.aic.gov.au/documents/B/B/D/%7BBBD2C15C-1292-4BA7-A822-79452250DF4E%7Dti180.pdf> [2011, October], 1-6.

¹²³Ibid.

¹²⁴Ibid, 1.

Bayley cautioned that the utility of the *crime rate* as a meaningful measure is further compounded when it is recognised that studies in the United States and the United Kingdom have found that, depending on the jurisdiction, only 15-25% of a police officer's work was crime related and that the figure might be closer to 7-10% when calls-for-service are more closely analysed.¹²⁵ He also pointed out that a larger part of police work is concerned with traffic safety. Whether this is by enforcement of traffic safety laws, by responding to vehicle accidents or by pro-active means such as community education, the regulation of road user behaviour is important because the numbers of people killed and injured in traffic accidents as well as the costs of damage due to accidents are usually substantially greater than those due to criminal activity. Moreover, because more members of the community encounter police as a result of traffic-related incidents rather than due to criminal situations, their assessments of police personnel and police organisations are more likely shaped in the context of traffic safety related contacts.¹²⁶

Because the *crime rate* in its various iterations has been frequently used as the definitive measurement of police performance, it is useful to summarise its flaws. Continued reliance on any performance indicators that include the *crime rate* is risky when considering that police and even their respective governance authorities have little control or influence over many of the criminogenic elements that contribute to crime. They also have little control or influence over the numerous variables that affect the successful implementation and management of crime reduction strategies and tactics.¹²⁷ Furthermore, the *crime rate* and derivatives of it, when considered in isolation, are essentially a measure of outputs rather than of outcomes. A further problem with

¹²⁵Bayley, *Police for the Future*.

¹²⁶Ibid.

¹²⁷Measurement of crime prevention and crime reduction is relevant because they are the basic functions of policing by which police organisations can make a difference when they are held accountable for suppressible crimes (G. L. Kelling, "Defining the Bottom Line in Policing: Organizational Philosophy and Accountability," in *Quantifying Quality in Policing*, ed. L.T. Hoover (Washington: PERF, 1996), 31).

focusing on the *crime rate* is that some crime, for various reasons, is not reported to police. That is, the widely cited *crime rate* is dependent on what the community reports to police and, as Bayley described, is dependent on the “assiduousness of police in recording what is reported.”¹²⁸ This can be overcome, to some degree, by including a victimisation survey as part of a performance measurement system.¹²⁹

Nevertheless, despite the substantial limitations with respect to relying on the *crime rate* as a meaningful measure, common Canadian benchmarks of policing have historically included the *crime rate per 100,000 of population*; the *percentage change in the crime rate*; and the *clearance rate of criminal offences* reported to police.¹³⁰ The latter is particularly problematic because research cited by Bayley indicated that the crime rate, overall, is not affected by the success rate of solving and clearing criminal offences. Rather, the critical factor in solving a criminal offence is whether the community, victims and witnesses have sufficient trust and confidence in the police to provide information to identify suspects.¹³¹ For instance, Tom Tyler pointed out that studies have determined that “public cooperation in fighting crime is motivated by evidence that the police are performing effectively in their efforts to control crime and urban disorder.”¹³² In terms of measuring police performance, Kelling maintained “measuring police performance solely by crime statistics simply ignores consequential values ... [such as] justice, integrity, fear reduction, citizen satisfaction and help for those who cannot protect or help themselves.”¹³³

A further frequently used and cited traditional measure of police performance is

¹²⁸Bayley, “Measuring Overall Effectiveness or, Police Force Show and Tell,” 40.

¹²⁹Moore, Thacher, Dodge and Moore, *Recognizing Value in Policing: The Challenge of Measuring Police Performance*.

¹³⁰*Police Resources in Canada, 2009*, (Ottawa, Canadian Centre for Justice Statistics (Statistics Canada 2010), Catalogue no. 85-225-X1E.

¹³¹Bayley, “Measuring Overall Effectiveness or, Police Force Show and Tell,” 37-54.

¹³²Tyler, “Enhancing Police Legitimacy,” 86.

¹³³Kelling, “Defining the Bottom Line in Policing: Organizational Philosophy and Accountability,”

police *response time*. This includes how quickly the telephone is answered, the time taken to respond to a call-for-service or even the time it takes for a member of the public to receive a copy of a police report. However, this is also an output measure.¹³⁴ Not only does this measure fail to capture the quality of a police response but also, as Bayley pointed out, research has indicated that “contrary to what most police officers think, rapid response is not even a key element in satisfying the public.”¹³⁵ It also shows a poor correlation to successfully solving crime or addressing problems. However, the literature indicates that response times are still frequently used as a major indicator of police performance.

Research conducted by Albert Reiss Jr., and cited by Bayley, suggested only 5-7% of calls to the police emergency telephone number required an emergency response, yet the quick response to a broad range of calls-for-service remains a commonly used output metric of police organisations. As Tom Williamson pointed out, whereas targets for response times can easily be established and measured, it is more important but “more difficult to identify the appropriate metrics with which to gauge the effectiveness, economy or efficiency of community-policing.”¹³⁶ Alternatively, Bayley suggested, because research indicates that it is the predictability of response that is important to a caller, it would be better “for the police to make reasonable promises they can keep rather than to reduce average response times by [a few] minutes.”¹³⁷

Ammons concluded that, in general, the successful introduction of strategic performance measurement in the contemporary public sector has been complicated because implementation requires the prior identification and establishment of suitable “yardsticks” for functions of government that substitute for the private sector *bottom-line*

¹³⁴Ammons, *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards*, 2nd Edition.

¹³⁵Bayley, *Police for the Future*, 6.

¹³⁶T. Williamson, “Preface,” in *The Handbook of Knowledge-Based Policing: Current Conceptions and Future Directions*, ed. T. Williamson (Chichester, UK: John Wiley and Sons, 2008), xii.

¹³⁷Bayley, *Police for the Future*, 7.

measure of profit or loss.¹³⁸ Common, Flynn and Mellon agreed that although it will be different for each public sector organisation, it is necessary to find “a measure of reconciliation equivalent to that of profit in the private sector.”¹³⁹ To this end, there exists a fundamental and important difference between the private sector and the public sector: namely, that the relatively easily determined financial profit is often used in the private sector as a measure of organisational success – the outcome; whereas, in the public sector the identification of the necessary measurements is not that straightforward. Even though the public and politicians have long tried to identify a *bottom-line* of police organisations for accountability purposes and determining value-for-money, police leaders, as well as police governance authorities and the public overall, have struggled with this concept.

Despite this difficulty, the news media, politicians and the public continue to rely on the widely distributed crime data reports from the central government¹⁴⁰ to be, in the words of Kelling, the “ultimate bottom line” of policing.¹⁴¹ Kelling conceded that, although not perfect, because they are essentially reports of outputs, the data collected through the Uniform Crime Reporting (UCR) survey could be considered as documenting to some extent the outcome performance of police in achieving organisational goals with respect to dealing with crime.¹⁴² However, the Federal Bureau of Investigation in the United States warned that because the UCR only records reported crime, the simplistic and incomplete analyses of this data is misleading when used to make comparisons with other police organisations, or with the national average.¹⁴³ Regardless, Ammons argued

¹³⁸Ammons, “Overcoming the inadequacies of performance measurement in local government: the case of libraries and leisure services,” 37-47.

¹³⁹Common, Flynn and Mellon, *Managing Public Services: Competition and Decentralization*, viii.

¹⁴⁰In Canada, this is data from the Uniform Crime Reporting Survey (UCR) survey collected and published by Statistics Canada-Canadian Center of Justice Statistics.

¹⁴¹Kelling, “Defining the Bottom Line in Policing: Organizational Philosophy and Accountability,” 5.

¹⁴²*Ibid.*, 32.

¹⁴³*Crime in the United States 1998: Uniform Crime Reports* (Washington: Federal Bureau of Investigation U.S. Department of Justice-Government Printing Office, 1999), iv.

that the UCR data could be used cautiously as benchmark indicators provided the user is informed and understands the substantial limitations of the data.¹⁴⁴

In their work, *Recognizing Value in Policing: The Challenge of Measuring Police Performance*, Moore et al. pointed out that the *bottom-line* of policing can also be considered as the extent to which crime has been reduced. If that is the case, they said, crime reduction must be part of the organisation's mission. Police organisations must then measure and be accountable for whether crime is, or is not, reduced.¹⁴⁵

A study of U.S. Fortune 500 and Canadian Post 300 private sector businesses cited by Bonnie Stivers, Teresa Covin, Nancy Hall and Steven Smalt found that 93% of respondents rated customer service as the most important deliverable. According to, Stivers and her colleagues, it is reasonable to conclude that similar results would be applicable in a public sector human service organisation¹⁴⁶ such as a police organisation. Thus, because contemporary organisations are customer driven as opposed to traditional private sector organisations that follow "a business theory built on capital, driven by profits and organized as a hierarchy,"¹⁴⁷ Moore et al. proposed an alternative interpretation of the *bottom-line* in a contemporary public sector human service environment. The bottom-line is the feedback from consumers of public service about the value and quality that they place on the product or service they receive.¹⁴⁸

However, a straightforward measurement of customer satisfaction can be elusive. As Hoover explained, although the calibration of quality and value, and thus customer satisfaction, is reasonably straightforward in most interactions between the police and the

¹⁴⁴Ammons, *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards*, 2nd Edition.

¹⁴⁵Moore, Thacher, Dodge and Moore, *Recognizing Value in Policing: The Challenge of Measuring Police Performance*.

¹⁴⁶B. Stivers, T. Covin, N. Hall and S. Smalt, "How Non-Financial Performance Measures are used," *Management Accounting*, Vol. 79, No. 8 (February, 1998), 44-48.

¹⁴⁷S. George and A. Weimerskirch, *Total Quality Management: Strategies and techniques proven at today's most successful companies*, 2nd Edition (Toronto: John Wiley and Sons, 1998), 2.

¹⁴⁸Moore, Thacher, Dodge and Moore, *Recognizing Value in Policing: The Challenge of Measuring Police Performance*.

community (e.g., the recipient of police service is likely to be satisfied if the police handle their situation well) there are many interactions for which the measurement of quality and value is not so clear.¹⁴⁹ It is noted that an assessment by the community of police performance might be influenced by the public's expectations and preconceptions of police rather than by the experience itself. Therefore, when assessing customer service it is necessary to consider:

- the recipients of the services and products;
- the key deliverables supplied to the customers;
- the customer's expectations of level of quality and value; and
- the various process(s) and sub-process(es) for each product and service.¹⁵⁰

However, Kelling cautioned that just as UCR data are preoccupied with crime as an indicator of performance, a preoccupation with client or customer satisfaction to the exclusion of other measures could have the "same corrupting and distorting potential."¹⁵¹

The evolution of police organisations and their management systems, as well as some parts of the public sector, have lagged behind comparable developments in the more progressive private sector. As we have seen above, historically, police organisations have used measures of outputs and efficiency as well as staying within budget rather than measures of effectiveness to indicate outcome performance. In contrast, for many years, successful private-sector organisations have increasingly used performance measurement systems that incorporate non-financial measures as well as traditional financial measures. Although, the trend in the United Kingdom, Australia and New Zealand is to focus on the assessment of police performance based on public satisfaction and confidence in their police, the literature is clear that most evaluations of police organisations continue, at best, to focus on individual programs rather than the adoption of a systems-based approach for assessing the overall effectiveness of

¹⁴⁹Hoover, "Translating Total Quality Management from the Private Sector to Policing," 1-22.

¹⁵⁰W. Kaydos, *Operational Performance Measurement: Increasing Total Productivity* (Washington: St. Lucie Press, 1999), 63.

¹⁵¹Kelling, "Defining the Bottom Line in Policing: Organizational Philosophy and Accountability," 33.

interdependent police activities. This remains true despite the observations and findings of Kelling who, in 1992, was one of the first to conclude traditional performance measurements were overall irrelevant to contemporary-policing.

Furthermore, it is apparent from the literature that many Canadian police organisations do not routinely collect data that enables an assessment of the quality and value of policing.¹⁵² This is true despite discussion originating in the 1970s about the wisdom of including new measures such as criminal victimisation and the fear of crime as well as assessments of community confidence and satisfaction with police. Although police interest with regard to the identification and gathering of neighbourhood indicators and non-arrest data has increased in recent time, the extant literature suggests that police organisations persist in paying more attention to traditional measurements rather than how the police and the community can achieve positive changes with respect to the fear of crime and social disorder or the prevalence of crime and social disorder.

Overall, even though the evolution of policing has not occurred in isolation from the public sector in general, the performance measurement of policing has remained rooted in the traditional-policing model. This is disappointing, given that as far back as the 1990s the National Institute of Justice (NIJ) began to examine how to measure “the amount of crime, disorder, and fear and their effects on community life,”¹⁵³ Hoover concluded, that the continuing use of traditional and simplistic measurements is prima facie evidence of a failure to understand the complexity of policing.¹⁵⁴ White concurred.¹⁵⁵ From his perspective, since the mandate of community-policing can be confusing to some because it might be viewed as a “hodge-podge of responsibilities,” the

¹⁵²Coleman, *A Study of Strategic Management and Performance Measurement in Canadian Police Organizations*: Coleman, “Managing strategic knowledge in policing: do police leaders have sufficient knowledge about organisational performance to make informed strategic decisions?” 307-322.

¹⁵³R. H. Langworthy, “Measuring what matters: A Policing Research Institute?” in *Measuring What Matters: Proceedings from the Policing Research Institute Meetings*, ed. R. H. Langworthy (Washington: U.S. Department of Justice-National Institute of Justice, 1999), 1.

¹⁵⁴Hoover, “Translating Total Quality Management from the Private Sector to Policing,” 1-22.

¹⁵⁵M.D. White, *Current Issues and Controversies in Policing* (Toronto: Pearson, 2007).

comprehension by some police leaders of the appropriate measurement of police organisational performance tends to be challenging for them.¹⁵⁶ Moreover, he added, due to the diverse responsibilities of community-policing, the traditional reliance on the measurement of prevention and control of crime is clearly insufficient.¹⁵⁷ The necessary new measures, Michael White suggested, should include a considered balance of traditional measures as well as new measures such as peer evaluations, community satisfaction, changes in social and physical disorder and expanded personnel evaluations.¹⁵⁸

It has been argued that traditional measures, when viewed in isolation and not in the context of an outcome focus, do not represent how well a police organisation responds to the community. However, it has been argued by some scholars that to exclude these traditional measures completely from contemporary performance assessment could be detrimental. For instance, Hoover pointed out that some police organisations which abandoned traditional output measures found that the number of arrests made and the amount of traffic enforcement as well as the clearance rates of reported offences often dropped substantially. Therefore, even though traditional output-based measures are inadequate on their own and more sophisticated outcome-focused measures are required, some might argue that certain traditional indicators of performance are still required. Caution is necessary, though, because the effect described by Hoover could be a manifestation of ‘what gets measured gets done.’ As Hoover succinctly stated, the retention of such traditional measures of performance requires careful consideration so that the organisational focus remains on the outcomes of organisational strategies, programs and tactics.¹⁵⁹

The evolution of performance measurement from the outputs of traditional-

¹⁵⁶Ibid, 204.

¹⁵⁷Ibid, 206.

¹⁵⁸Ibid, 204.

¹⁵⁹Hoover, “Translating Total Quality Management from the Private Sector to Policing,” 1-22.

policing to the subsequent slow and incomplete transition to outcomes of the community (contemporary) policing model has been symptomatic of the evolution of community-policing. Williamson, who has been critical of the slow evolution of community-policing, has been clear about the necessary changes relevant to performance management. In considering the fundamental flaws associated with the implementation of the community-policing model, he opined that “perhaps one of the problems with community-policing models is that they have often lacked a knowledge base with which to inform effective local action, and are thus a token presence rather than an effective prophylactic.”¹⁶⁰

Applicable to the collection of appropriate performance data, and the generation of knowledge to inform decision-making, Williamson noted that “policing is almost without exception still working with a variation of a 19th Century business model ... and as a consequence [is] low in leveraging knowledge that would increase effectiveness.”¹⁶¹ “The challenge for practitioners and policy makers,” he pithily commented, “is whether the [evolution] of Community Policing will take it in the direction of a new paradigm of knowledge-based policing, or whether it is to remain a variant of 19th Century conceptions of political geography and mentalities.”¹⁶² Williamson concluded that “if communities are to be empowered in line with the rhetoric of community-policing, the evidence from our studies of networks reveals that greater humility must be shown by the police.”¹⁶³ That is, it is essential that police organisations be open to their environments including meaningful engagement with their communities, whether spatial or a-spatial, and other social agencies in the pursuit of agreed upon performance outcomes of police activities.

¹⁶⁰Williamson, “Preface,” xxiii.

¹⁶¹Ibid, xxiii-xxiv.

¹⁶²Ibid, xxv.

¹⁶³T. Williamson, “Conclusion to the Handbook,” in *The Handbook of Knowledge-Based Policing: Current Conceptions and Future Directions*, ed. T Williamson (Chichester, UK: J. Wiley and Sons, 2008), 406.

Based on the literature, it is reasonable to conclude that the ultimate, even if utopic, desired outcome of policing is a safe community free from a fear of crime and social disorder. Or viewed another way, as Sir Robert Peel stated in his nine principles of policing in 1829, *the test of police efficiency is the absence of crime and disorder, not the visible evidence of police action in dealing with them.*¹⁶⁴ Alternatively, as Lord Scarman, who conducted a major public inquiry into United Kingdom policing in the 1980s, emphasised, “[p]ublic tranquility is the fundamental goal above law enforcement.”¹⁶⁵ In other words, the focus of performance measurement and management must be on the outcome of contemporary-policing that is inclusive of changes in the quality of life of communities and the police contribution to this.

2.3.2: Emerging measures and indicators

Even though, historically, the determination of police performance has relied primarily on output data such as the time taken to respond to a call-for-service or the number of arrests made, police are expected to perform numerous additional functions to meet public expectations. The traditional assessment of police performance failed to appreciate that it is the aggregate of multiple activities that shapes the outcome of policing. These activities range from ensuring safe streets, safe communities, crime prevention and crime control reduction, locating missing persons, quelling disturbances, responding to emergencies, solving problems to improve the quality of life and establishing relationships with the community as well as numerous other activities that constitute the public’s expectations of their local police organisation. Consequently, rather than continue with traditional activities and measurements, Mastrofski concluded that progressive chiefs of police should use performance indicators that reflect a range of factors broader than just crime control, such as:

¹⁶⁴J. J. Fyfe, J. R. Greene, W.F. Walsh, O. W. Wilson and R. C. McLaren, *Police Administration: 5th Edition* (Boston, MA: McGraw Hill, 1997), 8.

¹⁶⁵R. Reiner, “What should the police be doing?” *Policing*, Vol. 10, No. 3 (1994), 153.

- order maintenance and control;
- quality of neighbourhood life;
- extent to which police have mobilized community collaboration; and
- community satisfaction with police.¹⁶⁶

He further recommended that data collection should include community surveys to determine the fear of crime, the number of repeat calls for service, and the degree of physical and social disorder in public spaces.¹⁶⁷ Moore and his colleagues at Harvard's Kennedy School of Government suggested that police should include initiatives, and thus the appropriate performance indicators, to:

- reduce victimization;
- make offenders accountable;
- reduce fear and enhance personal security;
- promote secure communities and make public places safe;
- satisfy customer demands;
- ensure the effective, efficient and fair use-of-force and authority;
- achieve legitimacy with those policed; and
- ensure the effective, efficient and fair use of financial resources.¹⁶⁸

While all of these are important, it is the last three items – the raw resources entrusted to police as well as the essential legitimacy of police – that make the other initiatives possible. While the way in which police organisations have used their financial resources has long been scrutinised, the application of the authorities granted to police by the public through various levels of government have not traditionally been measured and reported. This has changed in the contemporary environment, because, as described by Carter, Klein and Day, the defining characteristics of good and democratic government are due process, equity, fairness, accountability and quality with respect to the delivery of public services.¹⁶⁹

Mike Hough, Jonathan Jackson, Ben Bradford, Andy Myhill and Paul Quinton

¹⁶⁶Mastrofski, "Measuring Police Performance in Public Encounters," 209.

¹⁶⁷Ibid.

¹⁶⁸Moore, Thacher, Dodge and Moore, *Recognizing Value in Policing: The Challenge of Measuring Police Performance*.

¹⁶⁹Carter, Klein and Day, *How Organisations Measure Success: The Use of Performance Indicators in Government*.

reminded us that “[t]he police are the most visible agents of social control and the most high-profile institution in a justice system that is empowered to define right and wrong behaviour.”¹⁷⁰ Similarly, Jennifer Fleming and Eugene McLaughlin pointed out that, “police are the most visible domestic agents of coercive governmental authority in advanced liberal democracies.”¹⁷¹ It is the application by police of the authority of the state, which includes society’s ultimate sanctions, namely the use-of-force, including lethal force, and the authority to restrict a person’s freedom, that is especially important because it must be used sparingly, effectively, efficiently and with justice and fairness. That is, although it is important to account for how financial resources are used, the measurement of contemporary police performance also requires an assessment of a police organisation’s capacity to produce justice and fairness in their quest for safe communities. For instance, as Moore and his colleagues pointed out, if crime and social disorder is reduced at the cost of personal freedoms and liberties because of intrusive or repressive activities, then the assessment might be that the cost to society is too high.¹⁷²

Consequently, how police use their authority is an important aspect of determining police performance and, as Moore et al. explained, including it as a measurable entity “changes the substantial criteria [used] to evaluate police performance.”¹⁷³ They also suggested that the measurement of how a police organisation uses its authority “has a profound effect on [the] understanding of who [are] the important customers.”¹⁷⁴ However, even though police organisations must be accountable for how they use their authority, traditional measures of performance have relied on reported crime and have paid little attention to the “fairness and economy within

¹⁷⁰M. Hough, J. Jackson, B. Bradford, A. Myhill and P. Quinton, “Procedural Justice, Trust, and Institutional Legitimacy,” *Policing: A Journal of Policy and Practice*, Vol. 4, No. 3 (2010), 205.

¹⁷¹J. Fleming and E. McLaughlin, “The Public gets what the Public wants?: Interrogating the Public Confidence Agenda,” *Policing: A Journal of Policy and Practice*, Vol. 4, No. 3 (2010), 199.

¹⁷²Moore, Thacher, Dodge and Moore, *Recognizing Value in Policing: The Challenge of Measuring Police Performance*, 26.

¹⁷³*Ibid.*, 27.

¹⁷⁴*Ibid.*

which the authority of police was [applied].”¹⁷⁵ As a result, the effectiveness of crime control has traditionally been interpreted as more important than a commitment to “fairness and discipline in the use of authority.”¹⁷⁶

As already noted, the demonstration of due process, equity and fairness – procedural justice – is essential to establishment of the necessary public trust of the public sector and is fundamental to a democratic system of government. The design of a strategic performance measurement system, therefore, should be such that the organisation can demonstrate how resources and services have been fairly allocated based on need rather than by political influence or the ability to pay. Accordingly, as Kennedy and Moore observed, because “the values of accountability, responsiveness, economy in the use-of-force and authenticity, freedom from corruption and abuse, adaptability and the acceptability of police behaviour”¹⁷⁷ are dependant variables when assessing community-policing, measures of police accountability must also reflect the principles of policing. Consequently, police leaders and managers, in what is essentially a monopoly, must ensure they are sensitive, ethical and accountable to customers by including indicators of justice, integrity, the wise use-of-force, community satisfaction, and efficiency when measuring their performance. As Edwin Delattre explained, the public sector, including policing, has the “reciprocity of obligation.”¹⁷⁸ The point he made is that ethical integrity and sensitivity are critical to the operation of police agencies.

Of all the outcome measures of police performance, in the recent past the notion of public confidence, trust and legitimacy concerning their police has arguably emerged to be the new direction with regard to assessing police performance at an organisational level. This seems particularly so in the United Kingdom (U.K.). Notwithstanding that

¹⁷⁵Alpert and Moore, “Measuring Police Performance in the New Paradigm of Policing, 272.

¹⁷⁶Ibid.

¹⁷⁷Kennedy and Moore, “Underwriting the Risky Investment in Community-Policing: What Social Science Should be doing to Evaluate Community-Policing,” 480.

¹⁷⁸E. J. Delattre, *Character and Cops: Ethics in Policing, 4th Edition*, (Washington: American Enterprise Institute for Public Policy Research, 2002).

for many years U.K. police agencies have been encouraged to measure performance based on outcomes, according to Hough et al. there has been “a resurgence of interest in ensuring that the public find the police trustworthy and that police authority and institutional legitimacy are strengthened as a result.”¹⁷⁹ This view brings a new dimension to what arguably constitutes an important outcome in the contemporary dynamic police environment. The contemporary police literature is clear that legitimacy is essential to a successful productive relationship between a police agency and its community.¹⁸⁰ For instance, Julian Roberts maintained that the justice system, of which policing is a sub-system, must inspire the confidence of the public in order to ensure its legitimacy. That is, he said, while power can be assigned, legitimacy and authority must be earned.¹⁸¹ As P.A. J. Waddington succinctly stated, “trust lies at the heart of public confidence.”¹⁸²

Tyler, who is arguably one of the foremost authorities on trust, confidence and police legitimacy, reminded us, in *Enhancing Police Legitimacy*, it is the public’s trust of, and confidence in, their police agency that is critical for policing in a democracy and for police to be effective.¹⁸³ This, he elaborated, is because police legitimacy, which can be measured by assessing the opinions of the public about their police, is dependent on trust and confidence. Said differently, it is the level of public dissatisfaction and mistrust of police resulting from police activities that undermines the legitimacy of the police.¹⁸⁴ For instance, Robert Mawby, when reflecting on the 19th Century naissance of modern

¹⁷⁹Hough, Jackson, Bradford, Myhill and Quinton, “Procedural Justice, Trust and Institutional Legitimacy,” 203.

¹⁸⁰The extent of police legitimacy is influenced by the collective actions of a police organisation that affect the levels of public trust and confidence with regard to their police.

¹⁸¹J. V. Roberts, (2004). “Public Confidence in Criminal Justice: A review of recent Trends (User Report 2004-05)” [Online]. Available: http://ww2.psepc-sppcc.gc.ca/publications/corrections/pdf/200405-2_e.pdf [2010, November].

¹⁸²T. Waddington, “Policing with Trust and Confidence,” *Policing: A Journal of Policy and Practice*, Vol. 4, No. 3 (2010), 197.

¹⁸³Tyler, “Enhancing Police Legitimacy,” 80.

¹⁸⁴*Ibid*, 90.

policing in the United Kingdom and the United States, reminded us that “during the early years of the modern police, the service role was emphasized for the purposes of securing policing by consent and to achieve legitimacy.”¹⁸⁵ Andy Myhill and Paul Quinton found plentiful evidence that a client/customer service approach to policing is effective in generating public confidence.¹⁸⁶ In other words, in the 21st Century, it is the service role and its relationship to legitimacy that is integral to the contemporary concept of community-policing.

When determining the legitimacy of their police and, thus, the extent to which they are willing to collaborate with police and to volunteer their cooperation, Tyler pointed out that the public makes “assessments of the manner in which the police exercise their authority.”¹⁸⁷ He further explained that the public, as the recipient of police services, becomes the evaluating authority due to their opportunity to assess whether police use fair procedures when engaging with the public.¹⁸⁸ As Waddington pointed out, it is “a token of citizenship in a liberal democracy ... that the police treat all members of the public with dignity, respect and consideration.”¹⁸⁹ Similarly, Jake Horowitz noted that when people form opinions regarding their encounters with police, they are influenced not only by the actions of police officers but, more importantly, by their demeanor.¹⁹⁰

Richard Dukes, Eduardo Portillos and Molly Miles pointed out that research has shown public satisfaction with police organisations is shaped by their victimisation experiences, their feelings of safety (including the fear of crime), their perception of the

¹⁸⁵R. C. Mawby, *Policing Images: Policing Communication and Legitimacy* (Cullompton, UK: Willan Publishing, 2002), 35.

¹⁸⁶A. Myhill and P. Quinton, “Confidence, Neighbourhood Policing and Contact: Drawing together the evidence!” *Policing: A Journal of Policy and Practice*, Vol. 4, No. 3 (2010), 273-281.

¹⁸⁷Tyler, “Enhancing Police Legitimacy,” 84.

¹⁸⁸*Ibid*, 91.

¹⁸⁹Waddington, “Policing with Trust and Confidence,” 197.

¹⁹⁰J. Horowitz, “Making Every Encounter Count: Building Trust and Confidence in the Police,” *NIJ Journal*, No. 256, 9.

ability of police to effectively reduce crime as well as police responses to their calls for police service.¹⁹¹ James Hawdon and John Ryan found that the nature of public contact with their police is more important than the frequency of contact.¹⁹² In the same vein, based on the work of A. Parasuraman, Valarie Zeithaml and Leonard Berry,¹⁹³ Stephen Mastroski identified six dimensions of service quality and valued policing. They were:

- attentiveness;
- reliability;
- responsiveness;
- competence;
- manners; and
- fairness.¹⁹⁴

Tyler added that people pay close attention to the “neutrality of decision making, respectful and polite interpersonal treatment, and ... opportunities for input into decisions.”¹⁹⁵ This refers, he maintained, to a person’s sense of “procedural justice.” Furthermore, he added, although police “cannot always provide desirable outcomes ... it is almost always possible [for police] to behave in ways that people experience as fair.”¹⁹⁶ In other words, the public can judge the police to be effective, fair, and otherwise performing well if they are treated with respect by a police officer even if the ultimate outcome of the interaction was not exactly what they desired. Furthermore, studies cited by Tyler of “people’s evaluation of all types of authorities [not just policing] have all provided strong support for the basic procedural justice argument.”¹⁹⁷ That is, the public, he found, base their overall assessment of police on procedural justice.

¹⁹¹R. Dukes, E. Portillos and M. Miles, “Models of satisfaction with police service,” *Policing: An International Journal of Police Strategies and Management*, Vol. 32, No. 2 (2009), 298.

¹⁹²J. Hawdon and J. Ryan, “Police Resident Interactions and Satisfaction with Police: An Empirical Test of Community-Policing Assertions,” *Criminal Justice Policy Review*, Vol. 14, No. 1 (2003), 55-74.

¹⁹³A. Parasuraman, V. Zeithaml and L. Berry, “SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality,” *Journal of Retailing*, Vol. 64, No. 1 (1988), 12-40.

¹⁹⁴S. Mastroski, (1999). “Policing for People,” *Ideas in American Policing*, Police Foundation, Washington, 2-4 [Online]. Available <http://www.policefoundation.org/pdf/Mastroski.pdf> [2011, October].

¹⁹⁵T. R. Tyler, “Policing in Black and White: Ethnic Group Differences in Trust and Confidence in the Police,” *Police Quarterly*, Vol. 8, No. 3 (September 2005), 339.

¹⁹⁶Tyler, “Enhancing Police Legitimacy,” 89.

¹⁹⁷*Ibid*, 91.

This view is supported to varying degrees by studies¹⁹⁸ cited by Davies and Thomas. These found that the effectiveness of community-policing has a strong correlation with equality principles and the public's support of their police and of community partnership.¹⁹⁹ In a similar vein, the findings of scholars such as Stephen Mastrofski, Jeffrey Snipes and Anne Supina;²⁰⁰ John McCluskey, Stephen Mastrofski and Roger Parks;²⁰¹ and Jonathon Casper, Tom Tyler and Bonnie Fisher,²⁰² concluded that even though it is debatable whether the public hold the police accountable for the crime rate, it is certain that the public holds the police accountable for their conduct. For instance, Tyler said, public perceptions of the outcomes of criminal investigations are different and "distinct from [the public's] judgments about the effectiveness, valence, or fairness of the outcomes of policing activities."²⁰³

Notwithstanding the aforementioned, Steven Brandl, James Frank, Robert Worden and Timothy Bynum suggested that the community's assessment of police performance is more likely influenced by their expectations and preconceptions of police than it is by their actual experiences of direct contact with police.²⁰⁴ Public perceptions, however, might be skewed by their personal experiences, in particular their recent experiences, as well as their perceptions of police and/or by stereotypes they have of police.²⁰⁵ Regardless of the drivers of their degree of trust and confidence, White

¹⁹⁸These studies include those of S. Sadd and R. Grinc, "Innovative neighbourhood oriented policing: an evaluation of community-policing programs in eight cities," in *The Challenge of Community-Policing: Testing the Promises*, ed. D. Rosenbaum (Thousand Oaks, CA: Sage, 1994) and; J. Zhao, N. He and N. P. Lovrich, "Value change among police officers at a time of organizational reform: a follow-up study using Rokeach values," *Policing: An International Journal of Police Strategies and Management*, Vol. 22, No. 2 (1999), 152-170.

¹⁹⁹Davies and Thomas, "Talking Cop: Discourses of change and policing identities," 688.

²⁰⁰S. D. Mastrofski, J.B. Snipes and A. E. Supina, "Compliance on demand: The public's responses to specific police requests," *Journal of Crime and Delinquency*, Vol. 33 (1996), 269-305.

²⁰¹J. D. McCluskey, S.D. Mastrofski and R. B. Parks, "To acquiesce or rebel: Predicting citizen compliance with police requests," *Police Quarterly*, Vol. 2 (1999), 389-416.

²⁰²J. D. Casper, T. R. Tyler and B. Fisher, "Procedural justice in felony cases," *Law and Society Review*, Vol. 22 (1988), 483-507.

²⁰³Tyler, "Enhancing Police Legitimacy," 91.

²⁰⁴S. G. Brandl, J. Frank, R. E. Worden and T. S. Bynum, "Global and specific attitudes toward the police: Dis-entangling the Relationship," *Justice Quarterly*, Vol. 11, No. 1 (1994), 119-134.

²⁰⁵Ibid.

suggested that one indication of the public's trust of their police is the degree of community involvement in neighborhood meetings with their local police.²⁰⁶

Without legitimacy, Tyler emphasised, it is difficult, if not impossible, to gain the voluntary public support and co-operation necessary for the police to be effective.²⁰⁷ He explained that the public cooperates when they see the police as "legitimate legal authorities."²⁰⁸ Moreover, he added, legitimacy-based policing leads to self-regulatory behaviour of the public that does not depend "upon the maintenance of a credible system of deterrence or upon the quality of police performance."²⁰⁹ While Tyler conceded that some studies have suggested the performance of a police organisation, for example, with regard to community safety, is insufficient on its own to gain public co-operation, he was adamant that procedural justice judgements of the police by the public are critical to their opinions of the police and influence their opinion separately from how well police maintain a safe community.²¹⁰ It is clear that the inclusion of an assessment of a community's trust of, and confidence in, their local police and, thus, their view of the legitimacy of their police, is necessary in a contemporary performance measurement model.

To build the necessary community relationships, which need to be based on trust and confidence in order to facilitate productive participation in decision-making, police personnel must have superior interpersonal skills and be effective team members. Other skills required of police personnel include: problem-solving, seeking feedback, planning and organising as well as at least an understanding of quantitative and qualitative measurement and analysis. Because of the importance of mutual trust, communication and collaboration with the community, the literature suggests performance measurement

²⁰⁶White, *Current Issues and Controversies in Policing*, 220.

²⁰⁷Tyler, "Enhancing Police Legitimacy," 80.

²⁰⁸Ibid, 84.

²⁰⁹Ibid, 90.

²¹⁰Ibid, 84.

should also take into account factors such as the frequency of complaints about police conduct and the extent of problem-solving interaction between police and the community.

From a slightly different perspective, Jonathan Jackson, Ben Bradford, Katrin Hohl and Stephen Farrell found that “public confidence is based less on instrumental concerns about crime and more on expressive concerns about neighborhood stability and breakdown.”²¹¹ The public’s trust and confidence with respect to their local police organisation is affected by their perception of crime and social disorder, which, in turn, affects the quality of community life.²¹² However, it was not until the 1980s that a new measurement of police performance emerged – the extent of a community’s *fear-of-crime*.²¹³ Although this fear might be due to ready access to media reports unrelated to the local environment and, thus, not linked to what local police are doing, it is relevant to goal achievement and, thus, goal measurement, because it might be a local criminogenic factor.²¹⁴ It is, therefore, important for police leaders to know the extent of the fear of crime in their community because the deployment of resources based on the community’s perception of crime could result in an inappropriate distribution of resources. This could negatively affect the deployment of resources to deal with the actual occurrence of local crime and social disorder.

Notwithstanding the criticality of due process, fairness and equity, the third input of police organisations – the funding received from taxpayers – is also important. Such funding is quickly converted by police organisations into human resources and

²¹¹J. Jackson, B. Bradford, K. Hohl and S. Farrell, “Does the Fear of Crime Erode Public Confidence in Policing?” *Policing: A Journal of Policy and Practice*, Vol. 3, No. 1 (2009), 100.

²¹²G. L. Kelling, “Order Maintenance, the Quality of Urban Life and the Police: A line of Argument,” in *Police Leadership in America: Crisis and Opportunities*, ed. W. A. Geller (Chicago: American Bar Foundation and Praeger Publishers, 1985), 296-308.

²¹³*Fear of crime* can be categorized as the concern about the level of crime, the perception of a personal risk of victimisation, and the perceived threat of crime in their environment (W. Skogan, “Measuring What Matters: Crime, Disorder and Fear,” in *Measuring What Matters: Proceedings from the Policing Research Institute Meetings*, ed. R. H. Langworthy (Washington: National Institute of Justice, 1999, 47).

²¹⁴Kelling, “Order Maintenance, the Quality of Urban Life and the Police: A line of Argument,” 296-308.

technology. As Barry Loveday pointed out, it is “evident that pressure to control public expenditure permeates police reform as much as it does other public sector modernization.”²¹⁵ Ammons observed that because much of a police organisation’s funding is expended on human resources, how police personnel spend their time is a substantial concern from an outcome perspective and when considering value-for-money. Municipal police agencies in Canada, for the most part, account for the single largest component of a municipality’s operating budget – usually approximately 20-21%. Furthermore, personnel expenses of a Canadian police agency account for approximately 80% of their operating budgets. How police personnel spend their time is, therefore, pertinent to a study of police performance.

In general, Ammons determined, a police officer’s time is divided between:

- operational time – responding to calls;
- following up investigations;
- administrative work – completing necessary reports;
- attending to court; and
- maintaining a public profile to provide reassurance to the community.²¹⁶

However, he added, *uncommitted* time²¹⁷ is also important in the contemporary-policing environment. This time is considered an indicator of the organisation’s capacity to actively build necessary relationships with the community and then work directly with community members to solve and identify neighbourhood crime problems and thus provide quality and valued service to the customer. How police spend their time is of direct relevance to the achievement of outcomes and can be used as an important indicator of outcome performance.

²¹⁵B. Loveday, “Workforce Modernisation: Implications for the Police Service in England and Wales,” *Police Journal*, Vol. 79 (2006), 108.

²¹⁶Ammons, *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards*, 2nd Edition.

²¹⁷*Uncommitted time*, which is sometimes called the *proactive time rate*, is the total time of a police officer’s shift less the time responding to calls-for-service, conducting follow-up investigations, dealing with “on view complaints,” completing administrative activities and taking breaks such as lunch. Theoretically, at least, it is the time available for officer-initiated activities with the community including the establishment and maintenance of important relationships (Ammons, *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards*, 2nd Edition).

Continuing the focus on human resources, Gilmour raised the notion that police personnel are more likely to treat the public fairly if they are treated fairly within their police organisation. That is, he said, “if the police service is to be successful in offering trust [to the public], it may have to begin by demonstrating trust – to include its own members in the pact that seeks to create with the public it serves.”²¹⁸ Said differently, he maintained procedural justice is necessary within a police agency for its personnel to apply procedural justice when interacting with the public.²¹⁹ From perspectives such as this, it is reasonable to conclude that a measure of police performance should include an assessment of employee satisfaction as well as an assessment to determine if appropriate leadership and management structures are in place within the police agency.

2.4: Extant related studies

As evident from the literature, scholars have conducted considerable research relating to the organisational performance of police agencies. While many of these studies have been previously discussed in this chapter, two studies from the U.S. and one from the U.K. arguably have particular relevance to the present study and were considered when designing the online questionnaire.

First, based on the work of Parasuraman and his colleagues,²²⁰ Edward Maguire and Devon Johnson²²¹ in the U.S. tested Mastrofski’s previously mentioned six-dimension model of quality and valued policing²²² to determine its application as a practical and effective performance model. After first establishing additive indices to measure each of the six dimensions, Maguire and Johnson used confirmatory factor

²¹⁸Gilmour, “The Confident Constable: A Search for the Intense Simplicity of Trust?” 221.

²¹⁹Ibid, 223.

²²⁰A. Parasuraman, V. Zeithaml and L. Berry, “A Conceptual Model of Service Quality and its Implications for Future Research,” *Journal of Marketing*, Vol. 49, No. 4 (1985), 41-50; Parasuraman, Zeithaml and Berry, “SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality,” 12-40.

²²¹E. Maguire and D. Johnson, “Measuring Public Perceptions of the Police,” *Policing: An International Journal of Police Strategies and Management*, Vol. 33, No. 4 (2010), 706.

²²²Mastrofski, “Policing for People,” 2-4.

analysis. They determined that the six dimensions were not “empirically distinguishable from one another.”²²³ That is, they rejected Mastrofski’s six-dimension model. Their findings instead suggested a “one-dimensional pattern – a single dimension that [they interpreted] as [representing the] overall perception of service quality.”²²⁴ However, the limitations of their research, they acknowledged, were that their study was conducted in a “small prosperous homogenous community with low crime and little [social] disorder,”²²⁵ and focused only on those members of the public who had recent direct contact with their police.

Second, research conducted in the U.S. by Dukes, Portillos and Miles²²⁶ examined “the process of citizen satisfaction with police service, so [that] police can emphasise important aspects of service and maintain high [public] satisfaction.”²²⁷ By means of structural equation modeling (SEM) and confirmatory factor analysis Dukes et al. identified two public-satisfaction models:

1. A five-factor model comprised of:

- personal crime victimization while living in the neighbourhood;
- neighbourhood safety;
- enough police officers;
- police response; and
- satisfaction with police service.²²⁸

2. A twelve-factor model comprised of:

- personal crime victimization while living in the neighbourhood;
- estimates of crime rate;
- fear of crime;
- crime fighting effectiveness;
- feelings of safety when out;
- enough police officers;
- police response;

²²³Maguire and Johnson, “Measuring Public Perceptions of the Police,” 718.

²²⁴Ibid, 723.

²²⁵Ibid, 718.

²²⁶Dukes, Portillos and Miles, “Models of satisfaction with police service,” 297-318.

²²⁷Ibid, 297.

²²⁸Ibid, 303.

- police consideration of citizens;
- confidence in the police agency;
- quality of life in the neighbourhood;
- quality of life in the municipality; and
- satisfaction with the police agency.²²⁹

Dukes et al. pointed out that the five-factor model had a Comparative Fit Index (CFI) of 0.95 while the twelve-factor model had a CFI of 0.91. Both exceed 0.90 and, thus, can be considered well-fitting models. Dukes et al. concluded “police should implement a process-based model of service that emphasises citizens’ feelings of neighbourhood safety and police response as important predictors of positive evaluation of service.”²³⁰

Third, Elizabeth Stanko and Ben Bradford in the U.K. established a performance model “around the question do police do a good job in your local area?”²³¹ This was then used as a foundation for the “London [U.K.] Metropolitan Police Service's strategic direction for achieving local confidence.”²³² The model was based on four factors:

- police effectiveness;
- police fairness;
- police community commitment/engagement; and
- police response to social disorder.²³³

Using confirmatory analysis to process data gleaned from existing surveys of the public, they found that “the four indicators ... appear[ed] to explain a significant degree of variation in overall confidence.”²³⁴ Their findings indicated that “police community commitment/engagement had the biggest unique association with overall confidence, followed by effectiveness and fairness and then concerns about social disorder.”²³⁵ Public perceptions of police engagement, police fairness and police effectiveness were, they determined, “key predictors of ‘how good a job’ people think their local police is

²²⁹Ibid, 304-305.

²³⁰Ibid, 297.

²³¹E. A. Stanko and B. Bradford, “Beyond Measuring ‘How Good a Job’ Police are Doing: The MPS Model of Confidence in Policing,” *Policing: A Journal of Policy and Practice*, Vol. 3, No. 4 (2009), 322.

²³²Ibid.

²³³Ibid, 324-325.

²³⁴Ibid, 326-327.

²³⁵Ibid, 327.

doing.”²³⁶ In that regard, they concluded that “police need to actively communicate [with the public about] what they are doing and achieving” and should be “engaged with the concerns and issues uppermost in peoples’ minds.”²³⁷

2.5: Contemporary-policing data

A strategic performance measurement system is of little value unless it is reliable, valid and credible. It must indicate not only what is observed and experienced but must also be able to adjust to the internal and external environments by accommodating changes such as those that affect policies, priorities, resource availability, program delivery mechanisms and restructuring of the organisation as well as evolving public expectations. To achieve this, it is necessary to determine the method to use for data collection. That is, whether to use a quantitative and/or a qualitative method.

Although the traditional-policing model relied primarily on the quantitative measurement of outputs, community-policing within a strategic management framework requires a selection of performance indicators that provide a blend of both qualitative and quantitative measurements. Police organisations that do not include both types of performance measurement are not only missing an opportunity to increase the effectiveness of service delivery, but, when performance measurement only relies on numbers, employees learn how to manipulate their activities and, thus, influence the output data generated.²³⁸ This can create a false impression of success. On the other hand, qualitative measurement can include such factors as the establishment of corporate value statements, functional policies and procedures in general and procedures for handling complaints about police conduct.

Overall, the collection of strategic performance data must be driven by a desire to enhance the organisation’s success in achieving its mission and goals. Data collection

²³⁶Ibid, 328

²³⁷Ibid.

²³⁸P. A. J. Waddington and P. Neyroud, “Special Edition on Performance Management-Introduction,” *Policing: A Journal of Policy and Practice*, Vol. 2, No. 3 (2008), 253.

must also be kept simple, even though performance measurement often requires customisation in order to meet multiple and shifting needs of many interested parties. For example, the authorising environment of police organisations is comprised of numerous stakeholders that often view police performance from different perspectives and dimensions of value.²³⁹ Because organisations are complex systems, caution is necessary, however, when designing performance measurement systems. For instance, the emphasis on data and the measurement of performance in one part of the organisation must be such that it does not create an unintended consequence in another part.

Performance indicators and measures, whether quantitative or qualitative, should be chosen such that the data collected are relevant, actionable, accepted throughout the organisation and ideally throughout the industry, and within control of the organisation. However, although performance indicators and measures are essential to the establishment of accountability mechanisms, Carter, Klein and Day cautioned that they should be selected as a means of improving organisational performance rather than to enhance the organisation's image.²⁴⁰ Care is also necessary to avoid information being mistaken for data and to realize that what gets measured is managed. That is, it is important to collect the right data or else it might be that the wrong activities are managed.

Because measurement systems might give rise to unintended organisational consequences, they must be well balanced and weighted based on employee as well as stakeholder input and feedback. They must also have a multi-dimensional focus so that they do not encourage and support undesired results. In addition, even though there must

²³⁹These include police boards; city councils; mayors; city managers; communities of place; communities of concern; police unions/associations; media (as a conduit to other players); complaint commissions; comptrollers; good government groups; special interest groups and the courts (Moore, Thacher, Dodge and Moore, *Recognizing Value in Policing: The Challenge of Measuring Police Performance*: 84-85).

²⁴⁰Carter, Klein and Day. *How Organisations Measure Success: The Use of Performance Indicators in Government*, 30-31.

be consistency in measurement and reporting so that a “change in a performance measurement is a reliable indicator of a change in performance,”²⁴¹ performance indicators must be refined, replaced or updated as necessary to ensure the data remain useful and relevant.

When the customer is of primary concern, as is the situation with contemporary-policing, organisational success from the customers’ perspective can be determined through surveys similar to market research conducted in the private sector. This direct communication with the customers and stakeholders enables organisations to recognize opportunities and reduce their vulnerability to otherwise unanticipated trends.

Theodore Poister and Gary Henry as well as David Kennedy and Mark Moore considered customer surveys useful tools in the public sector. This is because surveys, they said, view the public as consumers whose attitudes about service delivery in the absence of market competition can be considered an expression of the bottom-line of government.²⁴² Kennedy and Moore added that additional tools such as focus groups of police and the public, after-action audits of problem-solving initiatives as well as systems to measure corruption and abuse of authority are also required.²⁴³

Even though surveys are not a measurement panacea, Stephens observed that when appropriately designed and interpreted, they can provide a useful gauge of the extent to which customers are satisfied with the quality and value of services they receive.²⁴⁴ In a policing context, survey data can also identify issues such as the extent to which the community has a fear of crime, the number of repeat calls-for-service and the degree of social disorder²⁴⁵ in public spaces, all of which can potentially affect the

²⁴¹Kaydos, *Operational Performance Measurement: Increasing Total Productivity*, 51.

²⁴²T. H. Poister and G. T. Henry, “Citizen Ratings of public and private service quality: a comparative perspective,” *Public Administration Review*, Vol. 54, No. 2 (March-April 1994), 155-160.

²⁴³Kennedy and Moore, “Underwriting the Risky Investment in Community-Policing: What Social Science should be doing to Evaluate Community-Policing,” 469-488.

²⁴⁴Stephens, “Community Problem-Oriented Policing: Measuring Impacts,” 95-129.

²⁴⁵Some aspects of social disorder might be difficult to categorise and thus measure, because, for example, what is an annoyance to some might be music to others.

outcome – the end-result – of policing activities. Furthermore, rather than relying on just the crime and social disorder reported to police, community surveys can provide superior information such as the extent of un-reported crime and social disorder, which is not easily available from analysis of traditional police-generated data. Although the extent of crime has long been recognised as a matter requiring police attention, a formal record of the extent of social disorder has not historically been included in police record keeping. The degree to which crime and social disorder is not reported or recorded is, of course, important when assessing the performance of police.²⁴⁶ For instance, it might indicate a lack of confidence and trust of the police. An inaccurate record of actual crime and social disorder might also skew the deployment of police resources.

White determined that as the fear of crime and the level of social disorder, whether real or perceived, decreases, the quality of life increases.²⁴⁷ As Tonry and Farrington similarly pointed out, aspects of social disorder such as “incivilities and disputes,” which fall short of criminal offending, are “para-crimes” that require the attention of police because of their propensity to create an environment conducive to crime.²⁴⁸ Community surveys can potentially capture performance measurement data in this regard to inform organisational decision-making.

Although surveys can provide valuable information, caution is required when interpreting responses because customer assessments of service quality are not only subjective, but they also tend to change in relation to the number of employees that customers encounter during the receipt of services. Survey responses can also be influenced either positively or negatively by recent events.

2.6: Applications of strategic contemporary performance measurement

The value of the strategic measurement of police performance is not maximised

²⁴⁶Kelling and Wilson, “Broken Windows: The police and neighbourhood safety.”

²⁴⁷White, *Current Issues and Controversies in Policing*, 220.

²⁴⁸Tonry and Farrington, *Building a Safer Society: Strategic Approaches to Crime Prevention*, 597.

unless it is managed and applied to corporate decision-making: that is, strategic performance management is critical to the application of performance measures. One application of performance measurement in the quest for continuous organisational improvement is that of benchmarking. In the contemporary environment, regardless of the need to focus on the local community, the literature is clear that a performance management system must be designed to enable cross-jurisdictional comparison – benchmarking²⁴⁹ – and be multi-dimensional rather than using just a few measures chosen because of their financial impact. Morley, Bryant and Hatry in their work *Comparative Performance Measurement*, took the view that in the absence of the dynamics of the private sector market place, benchmarking can create a competitive environment in the public sector and, thus, stimulate innovation and continuous improvement by comparing the performance of similar agencies or organisations.²⁵⁰ Ammons described benchmarking, in the context of the public sector, as the making of comparisons based on “anticipated or desired performance results anchored either in professional standards or in the experience of respected [public sector organisations].”²⁵¹

Benchmarking requires the measurement of internal performance, the comparison of performance data from similar organisations, the identification of reasons for differences in performance and, then, a determination of how performance can be improved by internalising and applying lessons learned. By providing decision-making information, benchmarking data not only enables improvement of the strategic management and operation of an organisation but also provides a means of communicating to politicians, consumers of services and taxpayers about what has been achieved, what needs to be achieved, or what needs to be achieved better. It is an

²⁴⁹Also known as Comparative Performance Measurement (CPM) and sometimes referred to as *league tables*.

²⁵⁰Morley, Bryant and Hatry, *Comparative Performance Measurement*.

²⁵¹Ammons, *Municipal Benchmarks: Assessing Local Performance and Establishing Community Standards*, 2nd Edition, 24.

effective means of assessing value-for-money as well as for determining the degree of organisational success. Trends can be identified and addressed where necessary. Although it is of benefit to identify internal year to year progress of an organisation, benchmarking can also be used to determine the performance status of a police organisation against other similar police organisations.

Because decisions based on comparative performance measurements have often been problematic, appropriate interpretation is important. Pidd, when speaking to the risk of using performance indicators to construct league tables,²⁵² cautioned that “performance indicators are ... based on simple statistical models, and any resulting performance estimates should carry reasonable estimates of error.”²⁵³ He stated further, that when “these are included in the measures then much of the apparent ranking in league tables disappears, since there is no statistically significant difference in performance between many of the units ranked in the tables.”²⁵⁴

2.7: Summary

The focus of the literature review was on strategic performance measurement and performance management in both the public sector, including the policing sector, and the private sector. The latter was pertinent because of what has been perceived as innovative business practices emanating from the private sector, and because the acceptance of appropriate private sector business practices by the public sector has been a long-time characteristic of public sector evolution. Other major categories included in the review were strategic management, strategic leadership, public satisfaction, public accountability and policing.

The wide array of literature provides substantial discussion about what it is that should be considered and included when measuring police organisational performance as

²⁵²*League table* is a colloquial term. It is derived from competitive sports leagues due to the often competitive ranking of organisations.

²⁵³Pidd, “Perversity in public service performance measurement,” 410.

²⁵⁴*Ibid.*

well as explaining why many of the traditional performance indicators are insufficient in the environment of contemporary-policing. While the measurement of police organisational performance based only on inputs and outputs might have been adequate at some time in the past, it is apparent from the literature that this traditional, and still commonly used, performance measurement regime is flawed in the contemporary-policing environment. Not only have public expectations of police operational performance increased but the expectations of police accountability for the resources used and the results achieved have also increased substantially. This, as the literature tells us, has changed the focus of measuring organisational performance from a reliance only on inputs and outputs to an outcome focus.

Although the many scholars who have studied and commented on this matter have slightly different perspectives on what should be measured in the contemporary-policing environment, arguably, their perspectives can be summed as the need for police to strive for the outcome of a safe community free from a fear of crime and social disorder. Some scholars also consider public satisfaction an important outcome and some link this to the legitimacy accorded to the police agency by the respective communities. These notions of the assessment of police performance are substantially different from the traditional measurement regime of counting only outputs such as the number of arrests and charges or the number of calls received for service. That is, there is a gap between traditional means of measuring the performance of police organisations and that which is necessary now and likely into the future.

It is clear from the policing literature that the measurement of police performance from an outcome standpoint is complex and challenging. For instance, outcomes are frequently achieved only with the co-operation and collaboration of the community and/or community agencies. This, of course, is the essence of the contemporary (community) policing model. Consequently, the challenge in these circumstances is how

to attribute policing resources and activities to the end-result. For example, the outcome of a safe community free from a fear of crime and social disorder requires more than the work of the police; although the public often attributes this to the police alone.

Originating from the work of Daniel²⁵⁵ in the 1950s as well as Rockhart²⁵⁶ in the 1970s, de Waal²⁵⁷ proposed that organisational performance could be best determined by the identification of the strategic critical success factors (CSFs)²⁵⁸ of organisational performance. These factors would be consistent with the organisational strategy of, for example, a police organisation. That is, they would be congruent with the mission, the vision and the strategic direction of the organisation. The relatively few factors that are identified would then form the foundation for the determination of how well an organisation was performing. One way to identify these factors is to ask the stakeholders of policing their opinions about what, from their perspective, are the relevant CSSFs. That is, congruent with the Fundamental Principles of Contemporary-Policing (**Table 2.1**), the identification of the CSSFs requires the collaboration, input and feedback of stakeholders of policing.

Notwithstanding, the study of performance measurement and management as an academic discipline has had difficulty identifying boundaries and agreeing upon theoretical foundations,²⁵⁹ it is apparent from the literature that changes are necessary to the present measurement, analysis and management of police organisational performance if Canadian police organisations are to successfully implement a strategic contemporary performance management model.

The objective of the present study was, therefore, to close the gap identified in the literature between the traditional and the contemporary needs and expectations of police.

²⁵⁵Daniel, "Management Information Crisis," 111-121.

²⁵⁶Rockhart, "Chief Executives define their own data needs," 81-93.

²⁵⁷de Waal, *Strategic Performance Management: A Management and Behavioural Approach*.

²⁵⁸The present study uses the term Critical Strategic Success Factor (CSSF).

²⁵⁹A. Neely, "Introduction," in *Business Performance Management: Unifying Theory and Integrating Practice: 2nd Edition*, ed. A. Neely (Cambridge, UK: Cambridge University Press, 2007), 2.

This was achieved by applying, for example, the work of de Waal,²⁶⁰ Stanko and Bradford²⁶¹ as well as that of Dukes et al.²⁶² and Maguire and Johnson²⁶³ to identify the CSSFs that would form the base of a viable strategic outcome-based organisational performance measurement and management model.

The databases searched for the literature review included: Social Sciences Citation Index, PsycInfo, Dissertation Abstracts, Google Scholar, National Criminal Justice Reference Service (NCJRS) and resources of the United Kingdom's Home Office, in particular that of the National Policing Improvement Agency (NPIA). Keywords used in the search included: strategic management; strategic leadership; community-policing; contemporary-policing; accountability; police conduct; public trust and confidence; procedural justice; legitimacy; public safety; problem solving; social disorder; crime-rate; fear of crime; use-of-force; police ethics; systems-based approach; human resource management and success factors. The literature review formed the framework for the content and design of the questionnaire used to collect the necessary data.

²⁶⁰de Waal, *Strategic Performance Management: A Management and Behavioural Approach*.

²⁶¹Stanko and Bradford, "Beyond Measuring 'How Good a Job' Police are Doing: The MPS Model of Confidence in Policing," 322-330.

²⁶²Dukes, Portillos and Miles, "Models of satisfaction with police service," 297-318.

²⁶³Maguire and Johnson, "Measuring Public Perceptions of the Police," 703-730.

3. METHODOLOGY

3.1: Introduction

Recent work of scholars in the United States, such as Maguire and Johnson¹ as well as Dukes, Portillo and Miles² and those in Europe, such as de Waal,³ Stanko and Bradford⁴ as well as Waddington and Neyroud,⁵ has begun to recognise and address the need for contemporary performance measurement systems that will inform police performance management. However, there appears to be a dearth of Canadian-specific research and application in this area. The purpose of the present study was therefore a) to identify a unified strategic framework for the assessment of the performance of Canadian police organisations, and b) to design this framework such that it would have utility for Canadian police organisations, governments and police governance authorities as well as form a foundation for future research.

It was theorised that this could be achieved by asking stakeholders of policing for their opinions about what it is that is important to consider when assessing police organisational performance. Thus, an applicable research paradigm was a deductive positivist quantitative approach. An online self-administered cross-sectional survey of policing stakeholders⁶ was utilised to collect the necessary data.

3.2: Survey design and construction

The steps of social survey design and construction are:

1. Defining the research question(s);
2. Relating the research to the literature;
3. The research design;
4. Identification of population and sample;
5. Question design;

¹Maguire and Johnson, "Measuring Public Perceptions of the Police," 703-730.

²Dukes, Portillos and Miles, "Models of satisfaction with police service," 297-318.

³de Waal, *Strategic Performance Management: A Management and Behavioural Approach*.

⁴Stanko and Bradford, "Beyond Measuring 'How Good a Job' Police are Doing: The MPS Model of Confidence in Policing," 322-330.

⁵Waddington and Neyroud, "Special Edition on Performance Management-Introduction," 253-254.

⁶For the purpose of the study, policing stakeholders have been categorised as senior public servants, police personnel, and members of the public as well as elected municipal officials and members of police governance authorities.

6. Review of questions and assessment of validity;
7. Pre-test and revision of questions;
8. Reliability - internal consistency;
9. Administration of the survey;
10. Data collection; and
11. Data conversion for analysis.⁷

1. Defining the research question(s)

The overall objective of this exploratory study was to construct a Police Organisational Performance Index (POPI) of the Critical Strategic Success Factors (CSSFs) of police performance. In other words, this study sought to determine which of the numerous factors that could be used to assess the performance of a police organisation are considered by stakeholders the most important with which to establish a framework for the assessment of organisational performance. In order to satisfy the objective, the study focused on five research questions:

Research Question 1: According to stakeholders of policing, what are the CSSFs with which to establish a Police Organisational Performance Index (POPI)?

Research Question 2: Do the CSSFs identified by stakeholders as components of the POPI tend to be contemporary (outcome-focused) or traditional (output-focused)?

Research Question 3: Are there differences between the four sub-groups of stakeholders concerning the CSSFs they selected for POPI?

Research Question 4: In the event that there are differences, what are explanations for this?

Research Question 5: How do findings of the study inform public policy with regard to the advancement of the strategic measurement and management of police organisational performance?

2. Relating the research to the literature

The extant literature with regard to contemporary-policing as well as the measurement and management of organisational performance (**Chapter 2**) guided the design and construction of the survey. Of particular relevance to the study, and thus to the survey design, was the previously discussed work of scholars such as Maguire and

⁷G. Gray and N. Guppy, *Successful Surveys: Research Methods and Practice, Third Edition*, (Toronto: Thomson Nelson, 2003); Bryman, *Social Research Methods, 2nd Edition*, 85.

Johnson,⁸ Dukes, Portillo and Miles,⁹ de Waal,¹⁰ Waddington and Neyroud,¹¹ Stanko and Bradford,¹² Franceschini, Galetto and Maisano;¹³ Carton and Hofer;¹⁴ Drucker;¹⁵ Cameron and Whetton;¹⁶ Porter;¹⁷ Parasuraman, Zeithaml and Berry;¹⁸ Skogan;¹⁹ Mastrofski;²⁰ and Moore, Thacher, Dodge and Moore²¹ as well as the collaborative work of the United Kingdom Home Office and police organisations in England and Wales with regard to the customised performance groupings and domains they developed in the 1990s and early 2000s for their Police Performance Assessment Framework (PPAF).²²

3. Research design

The intent was to break new ground with regard to the generation of organisational performance measurement and management knowledge in the context of Canadian policing. According to Earl Babbie, an exploratory study is “essential whenever a researcher is breaking new ground and they almost always yield new insights

⁸Maguire and Johnson, “Measuring Public Perceptions of the Police,” 703-730.

⁹Dukes, Portillos and Miles, “Models of satisfaction with police service,” 297-318.

¹⁰de Waal, *Strategic Performance Management: A Management and Behavioural Approach*.

¹¹Waddington and Neyroud, “Special Edition on Performance Management-Introduction,” 253-254.

¹²Stanko and Bradford, “Beyond Measuring ‘How Good a Job’ Police are Doing: The MPS Model of Confidence in Policing,” 322-330.

¹³Franceschini, Galetto and Maisano, *Management by Measurement: Key Indicators and Performance Measurement Systems*.

¹⁴R. B. Carton and C. W. Hofer, *Measuring Organisational Performance: Metrics for Entrepreneurship and Strategic Management Research* (Cheltenham, UK: Edward Elgar, 2006).

¹⁵P. Drucker, *The Practice of Management* (New York: Harper and Row, 1954).

¹⁶K. S. Cameron and D.A. Whetton, “Perception of Organisational Effectiveness: one model or several?” in *Organisational Effectiveness: A Comparison of Multiple Methods*, eds., K. S. Cameron and D.A. Whetton (New York: Academic Press, 1983), 1-24.

¹⁷M. E. Porter, *Competitive Advantage* (New York: Free Press, 1985).

¹⁸Parasuraman, Zeithaml and Berry, “A Conceptual Model of Service Quality and its Implications for Future Research,” 41-50.

¹⁹Skogan, “Measuring What Matters: Crime, Disorder and Fear,” 37-53.

²⁰Mastrofski, “Policing for People.”

²¹Moore, Thacher, Dodge and Moore, *Recognizing Value in Policing: The Challenge of Measuring Police Performance*.

²²*SPI Good Practice Guide-2006/07*, (London, England: Police and Crime Standards Directorate, Home Office, May, 2006); *SPI for Policing-2007/08 Annex*, (London, England: Home Office, Police and Crime Standards Directorate 2007); *Police Performance Standards, 2006/07*, (London, Home Office Publications, 2007).

into the topic.”²³ This fits well with the circumstance of the study and, thus, an exploratory study was selected. A limitation of exploratory studies is that they are rarely definitive.²⁴ They cannot, for instance, demonstrate causal relationships and the possibility that findings can be generalized with any certainty is unlikely. Given that the study was designed to be exploratory, this was not considered an issue.

Because the goal was, by means of factor analysis, to establish a Police Organisational Performance Index (POPI) of CSSFs that would indicate the relative value of each selected factor, a systematic and standard method for gauging variations between responses was required. As a result, given that an advantage of quantification is that it provides a consistent benchmark and enables a determination of that variation, a deductive quantitative approach was selected.²⁵ As described by Dean Champion, “[q]uantitative research is the application of statistical procedures and techniques to data collected through surveys, including interviews and questionnaire administration.”²⁶ That is, “[i]n quantitative research, concepts are assigned a numerical value.”²⁷ Maruna maintained that quantitative methods are more replicable, precise and generalisable than qualitative research. He maintained that the statistical techniques of quantitative research “allow for the eliminating of confounding influences and better assess cause and effect relationships among variables.”²⁸ These techniques “produce findings that are notable for their clarity, succinctness, exactitude, and parsimony.”²⁹

²³E. Babbie, *The Practice of Social Research, 10th Edition* (Toronto, ON: Thomson Wadsworth, 2004), 89.

²⁴Babbie, *The Practice of Social Research, 10th Edition*, 89; E. O’Sullivan, G. R. Russell and M. Berner, *Research Methods for Public Administration, 4th Edition* (Toronto, ON: Longman, 2003), 27.

²⁵Bryman, *Social Research Methods, 2nd Edition*, 42.

²⁶D. J. Champion, *Research Methods for criminal justice and criminology, 2nd Edition* (Englewood, NJ: Regents/Prentice Hall, 2000), 137.

²⁷F. E. Hagan, *Research Methods in Criminal Justice and Criminology, 4th Edition* (Boston, MA: Allyn and Bacon, 1997), 14-15.

²⁸S. Maruna, “Mixed Method Research in Criminology: Why not go both ways,” in *Handbook of Quantitative Criminology*, eds. A. R. Piquero and D. Weisburd (Springer Science+Business Media, 2010), 128.

²⁹Ibid.

Alan Bryman pointed out that most quantitative social research (such as the present study) uses a cross-sectional research design,³⁰ even though internal validity is typically weak.³¹ Notwithstanding this limitation, because the study was exploratory and probing new ground, a cross-sectional self-administered online questionnaire was selected as the preferred approach in order to maximise survey distribution and, thus, the opportunity for stakeholder input. As Elizabethann O'Sullivan, Gary Russell and Maureen Berner explained, a cross-sectional survey design is appropriate for studies that collect data on many variables from a large group of subjects, and for subjects who are dispersed geographically.³² Considering that the stakeholder target population was spread across Canada and estimated to be a minimum of 4000 persons, this design was considered appropriate.

Moreover, as O'Sullivan et al. pointed out, a cross-sectional survey is the design of choice³³ for studies involving individual attitudes and behaviour as well as for conducting exploratory research for the purpose of identifying a foundation for further research. Since the exploratory study was to be based on the attitudes/opinions of stakeholders, these criteria fitted the study. Consequently, the research design was primarily a quantitative cross-sectional survey.

4. Identification of population and sample

As already mentioned, the Fundamental Principles of Contemporary-Policing suggest that consultation, collaboration and communication with stakeholders are critical to the successful implementation and sustainability of contemporary-policing (**Table**

³⁰A *cross-sectional research design*, also known as *survey research*, entails the collection of data, predominantly by questionnaire or by structured interview, on more than one case at a single point in time in order to collect a body of quantitative or quantifiable data in connection with two or more variables, which are then examined to detect patterns of association (Bryman, *Social Research Methods, 2nd Edition*, 43).

³¹Bryman, *Social Research Methods, 2nd Edition*, 43; F. J. Fowler, Jr., *Survey Research Methods, 3rd Edition* (London: Sage Publications, 2002), 43.

³²O'Sullivan, Russell and Berner, *Research Methods for Public Administration, 4th Edition*, 26.

³³Ibid, 27.

2.1). Thus, these principles were incorporated into the data collection approach. That is, the target stakeholder group for the study included persons from diverse backgrounds related to the delivery and consumption of police services. These included, as previously mentioned, police leaders, elected persons of municipal governments, members of police governance authorities, senior public servants of municipal and provincial governments, and members of the public. By virtue of the composition of this target group, it was not possible to calculate the size of this population. However, by means of accessing provincial and municipal websites as well as those of police organisations and police governance authorities it was estimated that with the exception of the public the total was a minimum of 4000 persons.

While probability sampling³⁴ might have been a preferred method, given the exploratory nature of the study and the anticipated challenges of securing a representative probability sample, the decision was made to use a non-probability sample;³⁵ specifically by means of *convenience sampling*³⁶ and *snowball sampling*.³⁷ The convenience sample³⁸ was selected purposively³⁹ rather than randomly.⁴⁰ This was achieved by two means. First, the target stakeholder population (and, hence, the source of the convenience sample) was reasonably easy to identify even though large and widespread geographically. Second, the convenience (direct invitation) sample was based on the

³⁴A *probability sample* is a sample selected using random sampling. That is, each unit in the population has a known probability of being selected (Bryman, *Social Research Methods*, 2nd Edition, 542).

³⁵Bryman, *Social Research Methods*, 2nd Edition, 81.

³⁶A *non-probability sample* is one that has not been selected by a random sampling method. Essentially, this implies that some units in the population are more likely to be selected than other units (Bryman, *Social Research Methods*, 2nd Edition, 541).

³⁷A *snowball sample* is a non-probability sample in which the researcher makes initial contact with a small group of people who are relevant to the research topic and then uses these to establish contacts with others (Bryman, *Social Research Methods*, 2nd Edition, 544).

³⁸A *convenience sample* is a non-probability sample because of the availability of the sample to the researcher (Bryman, *Social Research Methods*, 2nd Edition, 538).

³⁹*Purposive (judgmental) sampling* is a type of non-probability sampling in which the researcher selects the units to be observed on the basis of their judgment about which ones will be the most useful or representative (Babbie, *The Practice of Social Research*, 10th Edition, 183).

⁴⁰When a unit of a population occurs entirely by chance, it is considered *random sampling* (Bryman, *Social Research Methods*, 2nd Edition, 543).

known and perceived relevance to the research topic of the various sub-groups of the target stakeholder group. For instance, the researcher's police and criminal justice systems experience was applied to this determination. However, in an attempt to broaden the total convenience sample that would have the opportunity to respond, *snowball sampling* was also used. The snowball sample was achieved by asking the direct invitees (the convenience group) to forward the emailed invitation to others who they thought might be interested in participating in the study. Snowball sampling such as this is often used for exploratory research.⁴¹ Nevertheless, although such exploratory studies are valuable in social research, a risk exists that snowball sampling might not afford a clear answer to the research questions due to issues about the representativeness of the sample. That is, the risk, as already alluded to, with snowball sampling is that the sample is unlikely to be representative of the population in question. Notwithstanding that risk, Bryman pointed out,

[although] there is a much better 'fit' between snowball sampling and the theoretical sampling strategy of qualitative research than with the statistical sampling approach of quantitative research, [t]his is not to suggest that snowball sampling is entirely irrelevant to quantitative research.⁴²

Snowball sampling relies on the social and professional contacts between those invited directly by the researcher and those invited indirectly by representatives of the primary target group.⁴³ Although this method compromises any chance of a probability sample, and, thus, compromises the generalisability of the findings, it was deemed suitable and practical given the exploratory nature of the present study.⁴⁴

Through the aforementioned purposive sampling process, a letter of introduction with the embedded survey hyperlink was emailed directly to 4285 persons across Canada. Furthermore, as already explained, each recipient of a direct invitation was asked in the

⁴¹Babbie, *The Practice of Social Research, 10th Edition*, 184.

⁴²Bryman, *Social Research Methods, 2nd Edition*, 102.

⁴³O'Sullivan, Russell and Berner, *Research Methods for Public Administration, 4th Edition*, 149.

⁴⁴Bryman, *Social Research Methods, 2nd Edition*, 263.

letter of introduction to forward the invitation via email to Canadian residents they knew who might also be interested in participating in the study. Consequently, because it was not possible to determine the exact number of persons who received an invitation, it was not possible to determine a precise response rate.

However, this was not deemed critical since it was considered more important that participants were provided the option of self-identifying which sub-group of the target stakeholder group they belonged to (**Survey Questions 22 and 23**). To this end, a determination of the number of respondents within each sub-group of the respondent stakeholder group was possible. This provided an estimated response rate of 13.07% (**Table 3.1**). The literature indicates that this is low for emailed/online surveys.⁴⁵ Caution is required, however, when considering the response rate, because some of those who responded were not likely amongst those directly invited by email; some responses were no doubt because of snowball sampling. Possible reasons for non-response are discussed below.

5. Question design

As determined above, data for the study were to be generated by means of a self-administered online questionnaire that consisted of 21 questions all of which were based on the literature (**Appendix 3**). Floyd Fowler advised that self-administered surveys are well suited to close-questions such as those using a Likert scale.⁴⁶ The reasons for a Likert scale are two-fold. First, a Likert scale is “a multiple-indicator or -item measure of a set of attitudes relating to a particular area.”⁴⁷ That is, a Likert-scale measures the relative intensity of respondents’ feelings about the subject matter and variables of

⁴⁵M. Kittleson, “Determining effective follow-up of e-mail surveys, *American Journal of Health Behavior*, Vol. 21, No. 3 (1997), 193-196; C. Cook, F. Heath and R. L. Thompson, “A Meta-Analysis of Response Rates in Web-or Internet-Based Surveys,” *Educational and Psychological Measurement*, Vol. 60 (2000), 821.

⁴⁶Fowler, Jr., *Survey Research Methods*, 3rd Edition, 62.

⁴⁷Bryman, *Social Research Methods*, 2nd Edition, 68.

Table 3.1: Survey response rate

Respondent Sub-Group	Direct Invitations Emailed	Responses	Rate of Return
Senior Public Servants	211	96	45.50%
Police Personnel	1075	157	14.60%
Members of Public and Other	304	104	34.21%
Elected Municipal Officials and Members of Police Governance Authorities	2695	106	0.04%
Unknown	-	97	-
Total	4285	560	13.07%

individual questions.⁴⁸ For the present study, of interest were the respondents' attitudes/opinions with regard to the *relative* importance of each variable⁴⁹ of the questionnaire as a component of a police organisational performance index. More specifically, Research Questions 1, 2, 3 and 4 were dependent upon the relative opinions of the stakeholders that provide and receive the services of police organisations. Second, since Likert scale questions are commonly used for the creation of indices,⁵⁰ this approach was appropriate given that the objective was to produce an index of CSSFs – the POPI (**Research Questions 1, 2, 3 and 4**).

Although a five-point Likert scale was considered, given the reasons previously stated there were advantages to using a seven-point scale. In particular, since each Likert-scale question included several variables, clear differentiation with regard to attitudes/opinions was important. Thus, given that more points on a Likert scale permit finer distinctions,⁵¹ a seven-point scale ranging from 1 (*not at all important to include as a Critical Strategic Success Factor*) to 7 (*very important to include as a Critical Strategic Success Factor*) was selected for all Likert scale questions except for two. The two exceptions were Survey Question 2, which used a five-point scale, and Survey Question 18, which used a ten-point scale.⁵² Each Likert scale question, except Survey Questions 2, 9 and 18, also provided the option of a neutral *no opinion* response.⁵³

Bryman pointed out that closed questions, such as those in a forced-choice/forced-ranking question, provide advantages as well as disadvantages.⁵⁴ The advantages include the relative ease of coding responses as well as enhancement of the compatibility of

⁴⁸Bryman, *Social Research Methods*, 2nd Edition, 68; Babbie, *The Practice of Social Research*, 10th Edition, 169.

⁴⁹The variables listed in the questionnaire were factors of police organisational performance identified during the literature review.

⁵⁰O'Sullivan, Russell and Berner, *Research Methods for Public Administration*, 4th Edition, 299.

⁵¹Ibid, 301.

⁵²The rationale is explained below.

⁵³The rationale is explained below.

⁵⁴Bryman, *Social Research Methods*, 2nd Edition, 148.

responses. The disadvantages are that “it is difficult to make forced-choice answers mutually exclusive.”⁵⁵ Although overlap of some of the variables had the potential for options to be interpreted differently by different respondents,⁵⁶ this was not identified as a problem during pre-testing of the questionnaire. (Pre-testing is further discussed below).

Survey Questions 2 and 18 were forced-choice/forced-ranking questions in order to achieve clear differentiation in the ranking of the variables. That is, the option of *no opinion* was not available and each variable listed required a different ranking to the others. The variables represented in these questions were considered sufficiently important to an understanding of what respondents thought relevant that the decision to design these questions in this manner was made despite caution from the literature about limitations of forced-choice/forced-ranking scales. For instance, Naresh Malhotra suggested, albeit in a marketing context, “the accuracy of data may be improved by a non-forced scale which includes a no opinion category.”⁵⁷ A clear hierarchy of respondents’ opinions/attitudes was deemed necessary for Survey Questions 2 and 18 to provide a definitive frame for the resultant index – the POPI. Thus, the *no-opinion* option was excluded for these two questions.

Survey Question 2 consisted of five statements with a strategic focus about policing. The introduction to Survey Question 2 acknowledged that all statements were arguably important, but asked respondents to *rank* each of them in order of importance from their perspective. Collectively, these statements formed the foundation of the study; thus, it was important to learn the relative values placed by participants on each of these high-level characteristics. Hence, a five-point scale, which ranged from 1 (*is the least important of the five options to include as a Critical Strategic Success Factor*) to 5 (*is the most important of the five options to include as a Critical Strategic Success Factor*), was

⁵⁵Ibid, 150.

⁵⁶Ibid.

⁵⁷N. K. Malhotra, *Marketing Research: An Applied Orientation, 3rd Edition* (Upper Saddle River, NJ: Prentice Hall, 1999), 276.

used to rank order the five statements (**Appendix 3**).

Moreover, Survey Question 2 was designed to encourage participants to think strategically. For instance, a relatively recent trend, according to the police performance literature, as well as recent practice in the United Kingdom,⁵⁸ is a greater emphasis on outcomes that include an assessment of the public trust of, and the public confidence in, their local police. In the study, this is first raised in Survey Question 2 and reoccurs throughout the questionnaire.

Survey Question 9 was the second question that did not provide a *no-response* option. This question, which consisted of seven statements with regard to different subsets of the *crime-rate*, asked respondents how strongly, on a seven-point scale, they agreed about whether each subset should be included in an index of CSSFs. Notwithstanding its apparent limitations as a measure of police performance, the measure of the *crime-rate* is frequently used in public communications as a universal indicator of police performance.⁵⁹ In particular, the news media, politicians and some police leaders often use it as a benchmark when considering performance compared to other police agencies as well as using it to make internal comparisons. Because of the widespread common usage of the *crime-rate* and sometimes confusion that apparently accompanies such usage as well as considering the seven-point scale provided the opportunity for a mid-position, the researcher decided against including a *no-opinion* option for Survey Question 9.

Survey Question 18, which also did not provide a *no-opinion* option, sought respondents' opinions of the relative importance of ten potential components of a police performance index. These components were composed of ten groupings of the survey variables, which had been derived from the literature. As previously explained, Survey

⁵⁸Waddington, "Policing with Trust and Confidence," 197-198.

⁵⁹This includes publications of Statistics Canada through reports of their Canadian Centre for Justice Statistics (CCJS), such as *Canadian Crime Statistics* and *Police Resources in Canada*.

Question 18 was one of the questions that used a forced-ranking format. The question asked respondents to rank the ten options on a Likert scale ranging from 1 (*the least important of the ten options*) to 10 (*the most important of the ten options*). A ten-point scale was used because it provided an improved opportunity for the clear differentiation of responses. This was considered necessary not only to inform construction of the POPI but also to enable a comparison of the results from this question with the results of the factor analysis of Survey Questions 2, 3, 5, 7, 9, 11, 13 and 16.

Furthermore, although respondents had, when answering each survey question prior to Survey Question 18, shared their opinions about the *singular* importance of individual variables listed in each question, the researcher now sought information concerning their opinions about the *relative* importance of each grouping of variables. Arguably, all ten options could have been classified as *most important*. However, it was hypothesised that, given each grouping represented a mix of traditional and contemporary measures and that the target stakeholder group had different backgrounds and perspectives, the responses of police officers, for example, would tend to be more traditional than the response of members of the public or representatives of police governance authorities (**Research Question 4**). Thus, a forced-ranking response would provide improved clarity of a respondent's preference toward either a traditional or a contemporary focus concerning the measurement of police organisational performance.

Finally, Survey Questions 2, 3, 5, 7, 9, 11, 13, 16 and 18 *required* a response for each variable before the respondent could advance to the next survey question. This was because successful construction of POPI required responses, and thus data, with regard to all variables in an attempt to provide balanced data for analysis.

In addition to Likert scale questions, open-ended questions were also asked. Although Fowler cautioned that self-administered open-ended questions do not often

provide useful data,⁶⁰ the decision was made to include such questions (**Survey Questions 1, 4, 6, 8, 10, 12, 14, 17, 19, 20 and 21**). There were several reasons for this. The first question of the survey asked respondents to provide a brief narrative response concerning what they considered to be *the desired ultimate goal of policing activities*. This opening question was designed to help situate the survey for the participants with respect to the focus of the study. As with Survey Question 2, Survey Question 1 was also intended to encourage participants to think strategically about policing and police organisations while responding to the questionnaire. Another purpose was that responses might provide insight into the possibility that the diverse respondent group would have different perspectives about the goals, and thus outcomes, of police organisations. For example, targeted stakeholders ranged from police personnel to several categories of non-police persons.

Another reason was the researcher recognised that the variables in each question, although derived from the literature, might not be exhaustive or completely inclusive of all possible variables. Thus, Survey Questions 4, 6, 8, 10, 12, 14 and 17, each of which followed a Likert-scale question, provided an opportunity for the participant to add up to two variables that they considered *very important to include as a Critical Strategic Success Factor*. A response to these survey questions was not required in order to advance through the survey; that is, these survey questions were optional.

Survey Question 15, which also required a response before the respondent could continue, was a forced-choice question with regard to what is most important – *that police solve the crime or the situation reported to them, OR that police personnel treat the people they encounter fairly*. This question arose as the result of work by scholars such as Tom Tyler and Yuen Huo.⁶¹ They argued that, based on their research, the public

⁶⁰Fowler, Jr., *Survey Research Methods*, 3rd Edition, 62.

⁶¹T. Tyler and Y. Huo, *Trust in the Law, Encouraging Public Co-operation with the Police and the Courts* (New York: Russell Sage Foundation, 2002).

tended to value fair treatment – procedural justice – over the outcome of a police investigation. Given the increased emphasis on procedural justice as a desired outcome of policing, Survey Question 15 was considered relevant to the framing of this study.

Survey Question 19, further pursued the notion, shared by many scholars⁶² and raised in earlier questions in the survey, that public trust and confidence are important factors that likely shape the public's overall perception of police performance. Survey Question 19, therefore, asked participants *what it is that gives you, or would give you, confidence and trust in your local police?* This question required a brief narrative response. In the same theme, Survey Question 20 asked participants *what it is that reduces, or would reduce, your confidence in your police?* This question also sought a brief narrative response.

The purpose of Survey Question 21 was to give participants the opportunity to summarize their opinions about which variables must be included as a CSSF in a measurement index of police organisational performance. Accordingly, Survey Question 21 asked participants *what are the TWO CSSFs whether already included in this questionnaire or not that MUST be included when assessing the performance of your police organisation?* This open-ended question required a brief narrative response.

Survey Questions 19, 20 and 21 required a response before a participant could move on. Although in hindsight this requirement was not necessary, at the time of questionnaire construction it was considered that the responses to these questions were sufficiently important that responses were essential.

In order to determine the composition of the respondent group and, in particular, to answer Research Questions 2, 3, and 4, it was necessary to determine the occupational

⁶²Including T. Tyler, *Why People Obey the Law* (New Haven, CT: Yale University Press, 1990); Tyler and Huo, *Trust in the Law, Encouraging Public Co-operation with the Police and the Courts*; J. Sunshine and T. Tyler, "The Role of Procedural Justice and Legitimacy in Shaping Public Support for Policing," *Law and Society Review*, Vol. 37, No. 3 (2003), 513-548; Maguire and Johnson, "Measuring public perceptions of the police performance," 703-730.

group and province of residence of each respondent. Thus, the survey concluded with two questions (**Survey Questions 22 and 23**) that invited respondents to share their occupational group and province of residence. Asking the participant to report their province of residence also assisted to determine that only Canadian residents were included in the analysis. Because the use of snowball sampling made this difficult to control for, bias in this regard was, thus, minimized.

In summary, the questionnaire was a combination of nine close-ended Likert-scale questions (**Survey Questions 2, 3, 5, 7, 9, 11, 13, 16 and 18**) as well as eleven open-ended questions (**Survey Questions 1, 4, 6, 8, 10, 12, 14, 17, 19, 20, and 21**), which allowed for short narrative responses, one forced-choice question (**Survey Question 15**) and two final questions to gather demographic information about respondents (**Survey Questions 22 and 23**). Each Likert-scale question was composed of a matrix of variables ranging from those with a traditional-policing output focus to those with a contemporary-policing outcome focus.

6. Review of questions and assessment of validity

Validity is the “extent to which an empirical measure adequately reflects the real meaning of the concept under consideration.”⁶³ The assessment of validity is, in large part, achieved by constructing an appropriate theoretical link for the relationship between the concept and other variables.⁶⁴ Of particular relevance to the present study are Face and Content Validity (Operational Validity) and Construct Validity.

Face and Content Validity reflects whether the items included in a measuring instrument adequately represent the content of the property that the researcher intends to measure.⁶⁵ According to O’Sullivan et al. this can be satisfied when the researcher

⁶³Babbie, *The Practice of Social Research, 10th Edition*, 143.

⁶⁴D. J. Treiman, *Quantitative Data Analysis: Doing Social Research to Test Ideas* (San Francisco: John Wiley, 2009), 242.

⁶⁵O’Sullivan, Russell and Berner, *Research Methods for Public Administration, 4th Edition*, 484.

decides whether the items in an operational definition adequately measure the concept.⁶⁶ Such determination is based on judgment; it is essentially an intuitive process.⁶⁷

In the present research, this was achieved by means of a comprehensive literature review from which the concept and the variables were identified, developed and incorporated into the questionnaire. Furthermore, the questionnaire was informed by the researcher's knowledge with regard to police operations and management. Feedback was also received from external subject matter experts. They reviewed the contents of the questionnaire from the perspective of whether instructions were clear and whether questions were ambiguous, inconsistent or duplicated other questions.

This group included police practitioners at both the operational and senior leadership levels as well as public servants who have worked or are working in the criminal justice fields as well as those who are or have been post-secondary instructors of policing/criminal justice. Feedback consisted of some minor wording changes that were incorporated in the final questionnaire. Feedback from the group with regard to addressing whether, in their opinion, the empirical measures in the survey accurately reflected the concept they were intended to measure⁶⁸ were positive.

O'Sullivan et al. pointed out that to be valid, "performance measures must cover the range of organisational goals."⁶⁹ Because content validity is the degree to which a measure covers the range of meanings included within a concept,⁷⁰ respondents were given the opportunity in open-ended questions to add factors (variables), which they considered very important to include in an index of CSSFs. This further enhanced content validity since this approach provided an opportunity for respondents to draw attention to factors which had not been included as options.

⁶⁶Ibid, 119.

⁶⁷Bryman, *Social Research Methods*, 2nd Edition, 73.

⁶⁸Babbie, *The Practice of Social Research*, 10th Edition, 143.

⁶⁹O'Sullivan, Russell and Berner, *Research Methods for Public Administration*, 4th Edition, 120.

⁷⁰Babbie, *The Practice of Social Research*, 10th Edition, 145.

Construct Validity is the degree to which it measures the construct it purports to measure.⁷¹ This is related directly to the content validity of the questionnaire. As Dawne Vogt, Daniel King and Lynda King shared, "[a]t the very least, the content validity of instruments sets the upper limit for construct validity."⁷² As pointed out by Vogt et al., timely consultations with members of the target population are important "to inform the identification and specifications of key constructs."⁷³ Consultation with and feedback from the aforementioned group of subject matter experts indicated that construct validity was satisfied. Because construct validity is an "ongoing [and] complex process determined over a series of studies,"⁷⁴ future application of POPI will refine the construct validity.

External Validity. Because the present study was cross-sectional and did not use random sampling methods, external validity (the generalisation of findings) was questionable.

Criterion Validity. In the absence of a similar index to that developed for the present study, it was not possible to compare results and thus attempt to establish criterion validity. When POPI is operationalised, it will be possible to compare results between police agencies.

7. Pre-test and revision of questions

Fowler was clear that "field pre-tests of self-administered instruments should be with a group of potential respondents."⁷⁵ Pre-testing of a self-administered questionnaire allows for a determination of the adequacy of instructions and the clarity of questions to

⁷¹Bryman, *Social Research Methods*, 2nd Edition, 540.

⁷²D. Vogt, D. King and L. King, "Focus groups in psychological assessment: Enhancing content validity by consulting members of the target population," *Psychological Assessment*, Vol. 16 (2004), 232.

⁷³Ibid, 231.

⁷⁴M.A. Pett, N. R. Lackey and J. J. Sullivan, *Making Sense of Factor Analysis: The Use of Factor Analysis for Instrument Development in Health Care Research* (London, UK: Sage Publications, 2003), 239.

⁷⁵Fowler, Jr., *Survey Research Methods*, 3rd Edition, 114.

be considered by the respondent. Since it is desirable to pre-test a questionnaire,⁷⁶ a 20 person group of potential respondents⁷⁷ was asked to review and complete the survey from the perspective of a) their subject matter expertise and b) the overall comprehensibility of instructions and questions.

Apart from feedback, which was incorporated, with regard to sentence structure/grammar, consistency of terminology and the ease of understanding, the feedback on substantive issues was positive. That is, the content including the introduction, instructions, questions and the respective matrix of variables were considered appropriate. The pre-test group also estimated that completion of the questionnaire would take approximately 25 minutes.

The pre-test did not test reliability by means of a test/re-test method (repeat surveys) of the same participants.⁷⁸ The pre-test responses were not analysed with SPSS.

8. Reliability - internal consistency

The reliability-internal consistency of the questionnaire as well as that of the identified factors of POPI was determined during data analysis. That of the questionnaire was found to be good (Cronbach's $\alpha = .95$) (**Table 4.10**). That of the seven factors was also found to be good ($\alpha = .81$) (**Table 4.20**).

9. Administration of the survey

The contact with prospective survey participants was by email. This was for two reasons. First, this enabled the embedding of the survey hyperlink in the email such that direct access to the survey was straightforward. Second, for most of the prospective participants their street mailing addresses were not readily available. However, email addresses were, in the main, available from websites such as those of provincial governments, municipal governments and police governance authorities as well as

⁷⁶Bryman, *Social Research Methods*, 2nd Edition, 159.

⁷⁷The 20-member group consisted of policing experts, public sector business experts, and social science researchers as well as members of the public.

⁷⁸Babbie, *The Practice of Social Research*, 10th Edition, 142.

municipal government associations. Although the assembling of the required email addresses was time consuming, it was a more straightforward solution than identifying street addresses. Third, in the event prospective participants had questions or wished to communicate directly with the researcher, it was easier and quicker for them to do so by email.

10. Data collection

Before data collection, approval for the study was obtained on September 30, 2010 from the University of Regina's Research Ethics Board (**Appendix 1**). Invitations to participate were emailed to prospective participants from early October, 2010 until mid-November, 2010 and completed surveys were accepted until January 31, 2011. Pursuant to the ethics agreement, the email included a letter of introduction and a brief explanation of the research (**Appendix 2**). The introduction also included a hyperlink for direct access to the online survey. The Canadian Association of Chiefs of Police (CACP)⁷⁹ and the Canadian Association of Police Boards (CAPB)⁸⁰ were helpful by distributing invitations to their respective members.

In addition, direct email contact was made by the researcher with municipal councilors, members of municipal police boards/commissions and Canadian police leaders as well as with senior municipal and provincial public servants.⁸¹ This was achieved by using email addresses obtained from respective websites.

Direct email contact was also made with the stakeholder group by means of the researcher's eclectic list of personal and professional contacts. The list was large and diverse although, arguably, contained more criminal justice related persons than any other group. Emails were sent to all persons on the list that the researcher knew more

⁷⁹Although CACP represents in excess of 900 members, not all Canadian police leaders are members.

⁸⁰Although CAPB represents members of approximately 75 Canadian police boards and police commissions, not all police boards, commissions and police management boards are members.

⁸¹For the purpose of the study, members of the public, municipal councilors, members of municipal police boards/commissions and Canadian police leaders as well as senior municipal and provincial public servants constituted the policing stakeholder group.

than by just a brief encounter. While a potential existed for bias, this was not considered any greater than that which could arise from, for example, snowball sampling. It was considered, therefore, an acceptable risk in the context of exploratory research.

Non-Response

Since over 4000 invitations were extended for participation in the study and only 560 useful quantitative responses received, there was concern about the possibility of *non-response bias*. While the reasons for non-response were likely various, three reasons are worthy of discussion. First, the topic of the study, and thus the questionnaire and email, was about ‘performance.’ The use of email, however, provided a challenge with regard to reaching prospective participants. Spam filters, whether at the recipients’ server level or at the level of the recipients’ PC or laptop, have frequently been set to reject emails that include reference to ‘performance’ given the prevalence of Spam email that includes such terminology. Knowing this, the researcher attempted to construct emails without reference to ‘performance.’ Considering the subject matter of the survey, this was not practical.

Although it was inevitable that some emails would be trapped in Spam filters and, thus, would not reach potential participants, the decision was made to proceed. It is unknown how many emails in total, and thus invitations to participate, this applied to but approximately 100 were returned by the servers of large institutions as undeliverable due to being classified as Spam. It is likely that the total Spam rejection was greater than this.

Second, the target group, with the exception perhaps of some of the public, was largely composed of senior persons in their respective fields. For example, they included deputy ministers, city managers, mayors and police chiefs. Such persons routinely receive unsolicited email that is often screened-out by an administrative assistant. Furthermore, in some cases, senior police personnel might have been constrained by internal policy that prevented them from responding without agency approval. These

reasons would have reduced the response rate.

Third, Survey Monkey tracks the number of surveys started and how many are completed. According to Survey Monkey, 617 persons started the survey. However, in some cases, participants apparently only completed the first and sometimes started the second question before terminating. Analysis by SPSS 19 determined that 560 completed the survey such that quantitative data suitable for analysis were available. That is, 57 initial participants apparently dropped out soon after starting. While the reasons are not known, two possible reasons are that once the participant opened the survey they found that the subject matter content was not what they anticipated and, thus, were not interested or they felt that they did not have time to complete the survey.

Although it was apparent that there were numerous non-responders, these were not followed up. The reasons were several. Given the large number of persons initially invited and the logistics of achieving this, a follow up would have presented a further logistical challenge. Furthermore, the receipt of 560 responses indicated that follow up with non-responders was not critical. While the reasons for non-response are likely various, as previously mentioned it seems that many invitations to participate were rejected as 'spam.' Thus, with the means available to the researcher, a follow up to obtain additional responses from that group would likely have been unproductive. The potential non-response bias is discussed below.

11. Data conversion for analysis.

The data were collected by means of an online questionnaire located on the Survey Monkey server. Survey Monkey affords the opportunity to download collected data direct to SPSS Version 19. Thus, the data were directly converted to SPSS 19 for analysis.

3.3: Analytic framework

The overall goal of the study was to identify the six to eight CSSFs⁸² collectively considered by respondents the most important to include in a police organisational performance measurement index (POPI) (**Research Question 1**). In order to meet the goal and, thus, the objectives of the study and answer the research questions, quantitative analysis (univariate and multivariate) was conducted by means of SPSS 19. The primary analytic method was the exploratory factor analysis of Likert-scale scores to identify the factors relevant to the required index. Reliability (internal consistency) of these factors was determined during data analysis (**Refer to 4.4.4**). Cross tabulation and a chi-square test was conducted with regard to Survey Question 15. Comparison of each factor of POPI with the four sub-groups of respondents to determine differences in responses between the sub-groups (**Research Question 3**) was by one way Analysis of Variance (ANOVA).

3.4: Controls for potential bias

The nature of a self-administered survey has potential for several sources of bias.

These include:

- Response list;
- Loaded questions;
- Close-ended questions;
- Double-barreled questions;
- Response set;
- Clear language and instruction;
- Question ambiguity;
- Non-response bias;
- Sampling bias; and
- Researcher bias.

Response list

The response list of options provided to survey participants can be a source of

⁸²The literature suggests using a relatively small number of KPIs to determine organisational performance. To accommodate this, a relatively small number of CSSFs is also necessary.

question bias. To avoid this, possible responses should cover the range of plausible options. The close-ended questions of the survey used Likert-scale questions. While these were predominantly seven-point scales, one was a five-point scale and another was a ten-point scale. With the exceptions of Survey Questions 9 and 18, the options ranged from *not important* to *very important*. In the case of Survey Question 9, the options ranged from *strongly disagree* to *strongly agree*. In the case of Survey Question 18, the options ranged from *least important* to the *most important*. All close-ended questions except Survey Questions 2, 9 and 18 provided a *no-response* option. Thus, response options, which covered the range of plausible options, were considered clear and balanced.

Loaded questions

Loaded questions are worded so that a respondent gives an acceptable answer. Questions that are loaded with emotive adjectives or phrases and/or have strong positive or negative values can influence responses. Care was taken during construction of the questionnaire to avoid the use of loaded questions.

Close-ended questions

A requirement of close-ended questions is that the possible response categories should be exhaustive. Care was taken to ensure that the survey was constructed accordingly. All close-ended questions except Survey Questions 2, 9 and 18 provided a no-response option in addition to the seven-point scale questions, which provided a full range of response options. Moreover, the response categories were mutually exclusive.

Double-barreled questions

A question that asks two questions in one is a potential source of bias. Care was taken during questionnaire construction and the subsequent review of the questionnaire to avoid this.

Response set

Survey Questions 2, 3, 5, 7, 9, 11, 13, 16 and 18 each used a matrix of variables. This has a potential to foster a response set. To reduce the likelihood of *response set* and, thus, enhance the quality of responses, *Survey Monkey*⁸³ automatically randomised⁸⁴ the order of the listed variables within each question for each participant.

Clear language and instruction

Care was taken to ensure clear and concise instructions and introductory comments. In hindsight, given that the content of email invitations duplicated some of what was included in the introduction of the questionnaire, the latter could have been reduced.

The possibility of inaccurate answers occasioned by misunderstanding of the instructions or questions was reduced by constructing the survey using plain (i.e., jargon-free) language. In instances where it was believed that specific terminology could be misinterpreted, these items were clarified with an explanation or definition. Readability and understanding were also checked by means of pre-testing by a group of police practitioners, the public, scholars and public sector employees. In order to reduce bias concerning the respondents' frame of mind, participants were reminded in the survey introduction, and throughout the survey, to respond to the questionnaire in the context of thinking about their *local police*. The reason for this was that the respondents most frequently directly or indirectly interact with their local police agency. Thus, the local police agency, arguably, most affects their perceptions and their quality of community life.

Question ambiguity

Care was taken to ensure questions were not ambiguous. Feedback from the pre-

⁸³Survey Monkey, a U.S. based company (<http://www.surveymonkey.com>), was used as the platform for the online survey.

⁸⁴E. Babbie and L. Benquisto, *Fundamentals of Social Research, First Canadian Edition* (Scarborough, ON: Nelson, 2002), 250.

test group as well as some respondents who self-identified suggested this was successful.

Non-response bias

Since over 4000 invitations were extended for participation and only 560 useful quantitative responses received, there was concern about the possibility of *non-response bias*. In other words, was there a fundamental difference of attitudes and perceptions between those who chose not to respond and those who responded thus creating a *non-response bias*? The scope of this study did not allow for an independent estimation of *non-response bias*; however, according to Groves and Peytcheva, a low response rate does not necessarily imply a non-response bias.⁸⁵

Sampling bias

As previously explained, the research was designed to be exploratory. Consequently, no attempt was made to establish a probability sample. That is, those targeted and, thus, those who responded cannot be considered representative of the larger populations from which they were selected. Furthermore, it is important to note that the responses received were, arguably, from only those interested in the subject of the study. How that might have influenced the outcome of the study was not determined. These issues should be taken into consideration when interpreting the findings.

Researcher bias

Bryman stated, the “intrusion of the researcher’s values would appear to be much greater when examining the social world than [for example] when the natural scientist investigates the natural order.”⁸⁶ The researcher was a police officer and a police leader for 40 years. While this arguably could allow for improved interpretation of findings, if care is not taken it can also introduce subjectivity when objectivity is required. By recognising the risk at the start of the project, in addition to clearly outlining the

⁸⁵R. M. Groves and E. Peytcheva, “The impact of a non-response rate on non-response bias,” *Public Opinion Quarterly*, Vol. 72, No. 2 (2008), 167-180.

⁸⁶Bryman, *Social Research Methods*, 2nd Edition, 77.

methodology for the research, the researcher took care to ensure the research remained grounded in the literature. The researcher frequently self-checked to avoid introducing bias.

In addition to the above potential sources of bias, two additional sources were identified. First, the survey was designed such that an opportunity was provided for respondents to return to previous pages of the questionnaire. This was because the cross-section of participants ranged from those with much knowledge about policing, such as service providers, to consumers of policing, such as the public, with, perhaps, less knowledge. The intent was to enable participants to re-check definitions and/or clarify issues, if necessary, before they moved forward and submitted their completed survey. The risk, however, was that later questions might influence revisions to earlier responses or vice versa. While this might have occurred on occasion, given the size of the target group (and the subsequent number of responses) it was considered an acceptable risk and, indeed, might have led to better-informed responses in some instances. Second, only one survey completion was permitted for each Internet Provider (IP) address; this setting was operationalised within Survey Monkey to reduce the likelihood of multiple surveys completed by the same respondent.

3.5: Ethical considerations

An emailed letter of invitation and brief explanation of the study were used to recruit and brief potential participants. By means of the invitation, participants were asked to forward the email and survey link to Canadians who they thought might be interested in participating (**Appendix 2**). As per the requirements of the Research Ethics Board (REB), this letter was clear about participation being voluntary and that participants could withdraw at any time without penalty. It also included a hyperlink for direct access to the online survey; the introduction to which also stressed the voluntary participation aspect of the survey. Contact information for the Research Ethics Board,

the researcher and the researcher's graduate study advisor was provided in case any further clarification was required. Furthermore, the survey and its distribution were both structured such that the identities of the respondents were anonymous. Although Survey Questions 22 and 23 asked for the respondents' occupation group and province of residence, the introduction to the questions was clear that response was optional.

An assumption was made that when survey participants invited someone else to participate they would forward the letter of introduction with the embedded survey link. However, if they did not, the introduction and instructions were also included at the beginning of the online questionnaire. This eliminated the possibility that participants would not be appropriately briefed and advised, in particular, with regard to the voluntary aspect of the survey participation.

The invitation also explained that because the online survey platform – Survey Monkey – was based in California and, thus, collected data were stored in California, that United States legislation provided for United States government access to the data if necessary (**Appendix 2**). It is not known, nor determinable, to what extent possible concerns about U.S. government access deterred potential participation. However, emails were received from two invitees who were concerned about this and indicated that this was the reason they declined to participate.

The data collected were initially stored on Survey Monkey's server in California. The data were subsequently downloaded direct to the Statistical Package for the Social Sciences (SPSS) Version 19 for analysis. The data, both hardcopy as well as electronic, were under the researcher's control, securely stored in locked filing cabinets and password protected personal computers owned by the researcher and located on the researcher's property.

4. FINDINGS

4.1: Introduction

The data collection instrument – the online questionnaire – consisted of a combination of closed and open-format questions. As explained in Chapter 3, because Survey Questions 3, 5, 7, 9, 11, 15, 13 and 16 were *required* close-format questions that offered a limited number of variables to consider with regard to inclusion as a CSSF, the purpose of the *optional* open-format Survey Questions 1, 4, 6, 8, 10, 12, 14, 17, 19, 20 and 21 was to give respondents the opportunity to include additional issues they considered important. This would complement their responses to the close-format questions. Evaluation of responses to these optional open-format questions did not reveal useful data. For instance, many were not answered. Furthermore, many of the responses were not directly related to the question asked. Thus, responses from these optional questions were not used in the final analysis. In retrospect, it is likely that these questions need not have been included in the questionnaire or used as the variables of Survey Question 18.

Inspection of the eight close-format Survey Questions 3, 5, 7, 9, 11, 15, 13 and 16 indicated potentially useful data. Despite expectation to the contrary when designing the questionnaire, initial analysis of responses to close-format Survey Questions 2 and 18, which were based on groupings of variables determined by the researcher (**Appendix 3**), also did not indicate useful data. For instance, the factor analysis of Survey Questions 3, 5, 7, 9, 11, 15, 13 and 16 indicated groupings that did not align well with the arbitrary groupings used in the questionnaire.

This chapter provides an overview of the results of the analysis by first outlining the demographic profile of respondents. Second, the descriptive statistics of responses and the reliability analysis of Survey Questions 3, 5, 7, 9, 11, 13 and 16 are also described. Third, the exploratory factor analysis (EFA), parallel analysis (PA), reliability analysis of the identified factors and the analysis of variance (ANOVA) with regard to

determining the relationship between the identified factors and the four sub-groups of the respondent group are presented. Finally, the analysis and relevance of responses to forced-choice Survey Question 15, which was designed to be complementary to Survey Questions 3, 5, 7, 9, 11, 13 and 16, is explained.

4.2: Profile of respondents

Of the 560 respondents who completed the survey, 82.3% ($n = 463$) identified their respondent group (**Table 4.1**). *Police Personnel* represented the largest single group ($n = 157$). This accounted for approximately 34% of identified respondents; slightly more than each of the other three groups. Responses were received from across Canada (**Table 4.2**). Of the 452 respondents who shared their province of residence ($n=560$), the highest percentage (26.8%) was from Saskatchewan. This was likely because the researcher is reasonably well known in the Saskatchewan policing, municipal government and provincial government sectors. The second largest response group by province was Ontario at 26.3%. This was not surprising given the large overall population of the province. Only five responses were received from Quebec. This was likely because the survey was only available in English.

4.3: Survey questions 3, 5, 7, 9, 11, 13 and 16

4.3.1: Descriptive statistics

Each of these seven close-format survey questions comprised a matrix of variables. Each matrix contained between five and fourteen variables for a total of 56 (**Appendix 3**). The purpose was to garner the opinions with regard to the relative importance of each variable concerning its suitability for inclusion in the Police Organisational Performance Index (POPI). Respondents were asked to rank each variable on a seven-point scale ranging from 1 (*not at all important to include as a Critical Strategic Success Factor*) to 7 (*very important to include as a Critical Strategic Success Factor*). Tables 4.3 to 4.9, inclusive, show the descriptive statistics for the

Table 4.1: Respondents by sub-group

Sub-group	Frequency	Percentage	Valid percentage
Senior Public Servants	96	17.1	20.7
Police Personnel	157	28.0	33.9
Members of the Public and Other	104	18.6	22.5
Elected Municipal Officials and Members of Police Governance Authorities	106	18.9	22.9
Total	463	82.7	100.00
Missing	97	17.3	
Total	560	100.00	

Table 4.2: Respondents by province

Province	Frequency	Percentage	Valid percentage
British Columbia	56	10.0	12.4
Alberta	92	16.4	20.4
Saskatchewan	121	21.6	26.8
Manitoba	10	1.8	2.2
Ontario	119	21.3	26.3
Quebec	5	.9	1.1
New Brunswick	16	2.9	3.5
Nova Scotia	15	2.7	3.3
Prince Edward Island	12	2.1	2.7
Newfoundland and Labrador	2	.4	.4
Yukon	1	.2	.2
North West Territories	3	.5	.7
Total	452	80.7	100.0
Missing	108	19.3	
Total	560	100.0	

variables subject of each survey question.

The modes for each of the 56 variables were predominantly 6 or 7 on the seven-point scale. In no case was a mode less than 4 (**Table 4.6**). The means (M) ranged from 3.98 (**Table 4.6**) to 6.75 (**Table 4.5**). The standard deviation (SD) of each variable ranged from .76 (**Table 4.5**) to 1.49 (**Table 4.3**).

Although, tests for skewness showed scores clustered to the right, Barbara Tabachnick and Lynda Fidell considered that with a reasonably large sample (such as that for this study) skewness does not “make a substantive difference in the analysis.”¹

4.3.2: Reliability - internal consistency of the questionnaire

The internal consistency of the questionnaire was determined by Reliability Analysis (Cronbach’s α) (**Table 4.10**). The overall reliability of the seven questions and, thus, the seven matrices of the 56 variables, was high (Cronbach’s $\alpha = .95$). That is, the questionnaire had high internal consistency ($\alpha > .80$).²

With regard to Survey Question 5 (**Table 4.4**), if the variable “*The extent to which the community perceives that the visibility and accessibility of police provides reassurance with respect to safety concerns*” was deleted, α would increase from .80 to .81, thus indicating a marginal increase in reliability. Nevertheless, this item was not deleted given the small change that would result. Similarly, the reliability of Survey Question 7 (**Table 4.5**) would increase from $\alpha = .85$ to .86 if the variables “*The extent to which police respond immediately/promptly to a non-emergency call-for-service such as a theft, vandalism, or a break and enter all of which occurred some time ago*” and “*The extent to which police respond immediately/promptly to an emergency call-for-service such as an assault in progress, a break and enter or theft in progress, or a situation where someone is currently in personal danger or is a danger to others*” were deleted.

¹B. G. Tabachnick and L. S. Fidell, *Using Multivariate Statistics, 5th Edition* (Boston: Allyn and Bacon, 2007), 80.

²J. Pallant, *SPSS Survival Manual* (Maidenhead, UK: McGraw Hill, 2007), 98.

Table 4.3: Descriptives - survey question 3

Variables	<i>n</i>	<i>M</i>	<i>Mode</i>	<i>SD</i>
The extent to which police are proactive and promote community safety	524	5.83	7	1.28
The extent to which police have reduced the fear of social disorder	526	5.40	7	1.49
The extent to which police have reduced the amount of social disorder	519	5.53	7	1.41
The extent to which the community feels police actively engage the community and/or community agencies to seek solutions to issues/problems affecting the community	524	5.61	7	1.39
The extent to which the community feels police have effective communications and information sharing systems to keep the community informed	522	5.30	6	1.45

Table 4.4: Descriptives - survey question 5

Variables	<i>n</i>	<i>M</i>	<i>Mode</i>	<i>SD</i>
The extent to which police have reduced the amount of crime	503	5.84	7	1.34
The extent to which police have reduced the fear of crime	504	5.53	6	1.41
The extent to which the community is safe	495	6.29	7	1.13
The extent to which people in the community feel safe	507	6.08	7	1.22
The extent to which police have reduced the amount of social disorder	507	5.49	6	1.40
The extent to which the community perceives that the visibility and accessibility of police provides reassurance with respect to safety concerns	499	5.80	7	1.32
The extent to which police have reduced the fear of social disorder	503	5.36	6	1.42

Table 4.5: Descriptives - survey question 7

Variables	<i>n</i>	<i>M</i>	<i>Mode</i>	<i>SD</i>
The extent to which police personnel are sensitive to community needs	486	5.84	6	1.16
The extent to which police officers are approachable	490	5.99	7	1.12
The extent to which police personnel are polite when interacting with the community	491	5.79	6	1.21
The extent to which police personnel in general communicate well with the community	490	5.77	6	1.20
The extent to which police respond immediately/promptly to an emergency call-for-service such as an assault in progress, a break and enter or theft in progress, or a situation where someone is currently in personal danger or is a danger to others	484	6.75	7	.76
The extent to which police respond immediately/promptly to a non-emergency call-for-service such as a theft, vandalism, or a break and enter all of which occurred some time ago	490	4.83	5	1.42
The extent to which the community is satisfied with the service provided by police personnel	487	5.82	6	1.14
The extent to which police personnel demonstrate honesty and integrity when interacting with the community	486	6.49	7	.943
The extent to which police are fair when interacting with the community	490	6.16	7	1.11

Table 4.6: Descriptives - survey question 9

Variables	<i>n</i>	<i>M</i>	<i>Mode</i>	<i>SD</i>
The total crime rate	484	5.55	6	1.29
The criminal code - traffic offence rate for driving offenses [such as incidents of impaired driving, driving over 0.08, impaired driving causing death, dangerous driving, and dangerous driving causing death]	484	5.18	5	1.39
The violent crime rate	484	5.96	7	1.20
The non-violent crime rate	484	5.12	5	1.31
The extent of social disorder	484	5.12	5	1.35
The number of serious injury or fatal traffic	484	4.72	5	1.53
The number of traffic accidents [not including serious injury or fatal accidents]	484	3.98	4	1.46

Table 4.7: Descriptives - survey question 11

Variables	<i>n</i>	<i>M</i>	<i>Mode</i>	<i>SD</i>
The extent to which the community has confidence in their police	478	6.39	7	.95
The extent to which the community trusts their police	478	6.46	7	.86
The extent to which police officers are perceived to be fair when interacting with the community	480	6.13	7	1.10
The number of formal public complaints made about police personnel conduct	477	5.27	6	1.50
The number of formal public complaints about police personnel conduct which have been investigated and substantiated	478	5.92	7	1.28
The number of reported incidents of inappropriate use-of-force by police officers	475	5.46	7	1.45
The number of incidents of inappropriate use-of-force by police officers that have been substantiated by investigation	476	6.09	7	1.22
The extent to which police personnel are ethical when interacting with the community is	478	6.50	7	.87

Table 4.8: Descriptives - survey question 13

Variables	<i>n</i>	<i>M</i>	<i>Mode</i>	<i>SD</i>
The number of arrests, charges or alternate dispositions with regard to non-violent crime (such as theft, fraud, vandalism, break and enters into residential or commercial properties and offenses related to possession and trafficking of illegal drugs)	470	5.45	6	1.23
The number of arrests, charges or alternate dispositions with regard to social disorder	471	5.27	5	1.33
The number of arrests, charges or alternate dispositions with regard to violent crime (such as assaults, armed robbery, sexual assault, domestic violence, attempted murder and murder)	462	6.20	7	1.18
The number of arrests, charges or alternate dispositions with regard to all criminal offenses	469	5.68	6	1.22
The number of arrests, charges or alternate dispositions with regard to driving offenses under the Criminal Code of Canada [this includes impaired driving, driving over .08, impaired driving causing death, dangerous driving and dangerous driving causing death)	471	5.48	6	1.30
The number of arrests, charges or alternate dispositions with regard to driving/vehicle safety offenses under provincial legislation such as the Traffic Safety Act or equivalents [this includes speeding, failing to stop for a red traffic light or a stop sign, safety checks of vehicles, careless driving	471	4.86	5	1.41

Table 4.9: Descriptives - survey question 16

Variables	<i>n</i>	<i>M</i>	<i>Mode</i>	<i>SD</i>
The extent to which the police agency responsibly manages allocated resources [such as funding and human resources]	465	6.02	7	1.11
The extent to which the police agency is responsive to changes in the social and justice environments	467	5.84	6	1.12
The number of 'sick' days used on an annual basis by employees of the police agency	455	4.78	5	1.52
The extent to which funding is invested on an annual basis for direct employee development [skill training and/or education] as a percentage of total payroll	462	5.53	6	1.26
The annual operating cost of the police agency per capita of community population	467	5.19	5	1.39
The extent to which the police agency uses a robust employee performance appraisal/development program	459	5.61	6	1.26
The extent to which the police agency uses robust systems to ensure continuous evaluation, continuous improvement and change	466	5.76	7	1.23
The extent, overall, to which police personnel are satisfied in their workplace	466	5.76	6	1.18
The extent to which the police agency uses merit-based hiring and promotion practices:	456	5.83	6	1.24
The extent to which staffing of the police agency is representative of the community	466	5.24	6	1.47
The extent to which the police agency has effective internal communications and information sharing systems	466	5.91	7	1.23
The extent to which the police agency works with other police agencies when necessary	464	6.08	7	1.12
The extent to which the police agency works collaboratively with community agencies when necessary	467	5.97	6	1.11
The extent to which the police agency is client/customer focused	469	5.90	7	1.22

Table 4.10: Reliability of questionnaire

Survey Question	Number of variables	α
3	5	.70
5	7	.80
7	9	.85
9	7	.86
11	8	.85
13	6	.90
16	14	.90
Total	56	.95

Given the high reliability found before both variables were removed and the relatively small increase of α (from .85 to .86) occasioned by their collective removal, both items were retained for the purpose of further analysis.

4.4: The Police Organisational Performance Index (POPI)

The overall objective of the study was to identify the police organisational performance factors (variables) likely to form an index (a composite indicator) of Critical Strategic Success Factors – the POPI (**Objective 1**). The literature, such as OECD's *Handbook on Constructing Composite Indicators*³ as well as Field's *Discovering Statistics Using SPSS*,⁴ suggested that analysis of responses necessary to construct such an index should include:

- Exploratory Factor Analysis/Principal Component Analysis (PCA);
- Parallel Analysis (PA); and
- Reliability-Internal Consistency Analysis of the Index.

4.4.1: Exploratory factor analysis-principal components analysis

In order to meet the study's objectives and answer Research Questions 1, 2, 3 and 4, Exploratory Factor Analysis (EFA) was conducted. The questionnaire yielded responses from 560 participants (**Table 4.1**). The responses for each of the 56 variables ranged from $n = 455$ to $n = 526$ (**Tables 4.3 to 4.9**). Tabachnick and Fidell⁵ as well as Andrew Comfrey and Howard Lee⁶ considered a minimum of $n = 300$ a suitable sample for EFA. Consequently, the responses to the variables of Survey Questions 3, 5, 7, 9, 11, 13 and 16 were subjected to EFA using Principle Components Analysis (PCA). Oblique (Promax) rotation was used because it was theorized that the factors would correlate.⁷ Pairwise exclusion was applied with regard to missing data because it only excludes a

³*Handbook on Constructing Composite Indicators: Methodology and User Guide* (Organisation for Economic Co-operation and Development, 2008).

⁴A. Field, *Discovering Statistics Using SPSS, Third Edition* (London: Sage, 2009).

⁵Tabachnick and Fidell, *Using Multivariate Statistics, 5th Edition*.

⁶A. L. Comfrey and H. B. Lee, *A first course in factor analysis, 2nd Edition* (Hillsdale, NJ: Erlbaum, 1992).

⁷Field, *Discovering Statistics Using SPSS, Third Edition*, 653.

case if it is missing data necessary for the analysis in question. This option maximised the sample size subject of the analysis.

The result was a Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) of .92. Graeme Hutcheson and Nick Sofroniou⁸ considered that such a score indicated the sample size was adequate and the items were sufficiently intercorrelated to utilise PCA.⁹ Bartlett's Test of Sphericity (13852.393) was statistically significant ($p < .001$). On that basis, Factor Analysis was also deemed appropriate.¹⁰

A review of the diagonal of the Anti-Image Correlation Matrix¹¹ showed values ranging from .95 to .87. These were well above the minimum of .5 recommended by Andy Field.¹² Furthermore, the off-diagonal elements were small. According to Field, this indicated a "good Factor Analysis."¹³ On that basis, none of the variables warranted exclusion. A review of the Reproduced Correlation Matrix¹⁴ showed that there were 177 (11%) non-redundant residuals with absolute values greater than .05. Field advised that "if more than 50% [non-redundant residuals with absolute values] are greater than .05, then there is cause for concern."¹⁵ This was not the situation for the present study.

Using Kaiser's criterion of retaining factors with initial eigenvalues greater than 1.0¹⁶ thirteen factors were identified. These factors accounted for a cumulative variance of 67.14%; of which, Factor 1 accounted for 27.69%. The same factors emerged in the Pattern Matrix (**Tables 4.13 to 4.19**).

⁸G. Hutcheson and N. Sofroniou, *The multivariate social scientist* (London: Sage, 1999).

⁹B. G. Tabachnick and L. S. Fidell, *Using Multivariate Statistics, 3rd Edition* (New York: HarperCollins, 1996).

¹⁰Field, *Discovering Statistics Using SPSS, Third Edition*, 660.

¹¹Table not included due to size.

¹²Field, *Discovering Statistics Using SPSS, Third Edition*, 659.

¹³Ibid.

¹⁴Table not included due to size.

¹⁵Field, *Discovering Statistics Using SPSS, Third Edition*, 660.

¹⁶Ibid.

4.4.2: Parallel analysis

As recommended by Brian O'Connor¹⁷ and Julie Pallant,¹⁸ Parallel Analysis (PA) was conducted to assist the final determination of how many factors would best fit the data. The results indicated an eight-factor solution was possible. Of note, the random eigenvalue generated by PA for the eighth factor was only slightly greater than the eigenvalue obtained through Principal Component Analysis (1.55 and 1.43 respectively). Thus, a seven-factor model could be appropriate.

An initial review of the Scree Plot showed it tailed off after three factors. On closer inspection it was found there was a slight levelling off again after Factor 7 and then a further drop after Factor 8. This also confirmed that a seven-factor model could be appropriate. The literature with regard to the identification and use of performance measurement factors suggests they be kept to as few as possible.¹⁹ For instance, Knowing suggested there could be as few as three to five metrics when constructing a performance measurement index.²⁰ Therefore, guided by Kaiser's criterion (eigenvalues > 1), the Scree Plot, the results of PA, and the performance measurement literature, a seven-factor model was selected. The seven factors accounted for a cumulative variance of 53.98% of which Factor 1 accounted for 27.69% (**Table 4.11**).

A review of the Correlation Matrix (**Table 4.12**) indicated the strongest correlation²¹ ($r = .50$) was between Factor 1 (*Legitimacy of the Local Police Agency*) and Factor 2 (*Leadership and Management of the Local Police Agency*). The next strongest

¹⁷B. P. O'Connor, "SPSS and SAS programs for determining the number of components using parallel analysis and Velicer's MAP test," *Behaviour Research Methods, Instrumentation, and Computers*, Vol. 32 (2000), 396-402.

¹⁸Pallant, *SPSS Survival Manual*, 182-183.

¹⁹Nyhan and Marlowe, Jr. "Performance Measurement in the Public Sector: Challenges and Opportunities," 333-348; de Waal, *Strategic Performance Management: A Management and Behavioural Approach*; Knowing Jr., "Leading with Vision, Strategy and Values," 182-183.

²⁰Knowing Jr., "Leading with Vision, Strategy and Values," 182-183.

²¹Such correlations can be categorised as *small* ($r = .10$ to $.29$), *medium* ($r = .30$ to $.49$) and *large* ($r = .50$ to 1.0) (J. W. Cohen, *Statistical power analysis for the behavioral sciences*, 2nd Edition, Hillsdale, NJ: Lawrence Erlbaum Associates, 1988, 79-81).

Table 4.11: Variance - seven-factor model

Component	Eigenvalues		
	total	percentage of variance	cumulative percentage
Factor 1	15.505	27.69	27.69
Factor 2	4.199	7.50	35.19
Factor 3	2.698	4.82	40.01
Factor 4	2.369	4.23	44.24
Factor 5	2.064	3.69	47.92
Factor 6	1.782	3.18	51.10
Factor 7	1.611	2.88	53.98

Table 4.12: Correlation matrix of the seven-factor POPI

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7
Factor 1							
Factor 2	.50						
Factor 3	.38	.38					
Factor 4	.45	.34	.44				
Factor 5	.29	.30	.42	.30			
Factor 6	.31	.34	.22	.17	.32		
Factor 7	.28	.213	-.02	.09	.21	.37	

correlation ($r = .45$) was between Factor 1 (*Legitimacy of the Local Police Agency*) and Factor 4 (*The Community's Feeling of Safety*). A positive medium correlation ($r = .41$) was identified between Factor 3 (*Enforcement by the Local Police Agency*) and Factor 5 (*Crime and Social Disorder in the Community*). Factors 3 (*Enforcement by the Local Police Agency*) and 7 (*Mutually Beneficial Police/Community Relationships*) had the smallest correlation ($r = -.02$). The correlation between Factors 4 (*The Community's Feeling of Safety*) and 7 (*Mutually Beneficial Police/Community Relationships*) was also small ($r = .09$).

Tables 4.13 to 4.19, inclusive, represent the items from the Pattern Matrix that loaded onto each of the seven factors when using a cut-off of .45. Using this criteria, there were 45 items in the index ($\alpha = .94$, $M = 256.50$, $SD = 29.13$).

When the questionnaire was constructed, the variables – *the extent to which police have reduced the fear of social disorder* and *the extent to which police have reduced the amount of social disorder* – were included in both Survey Question 3 and Survey Question 5 (**Appendix 3**). This was because these variables were deemed appropriate to the focus of both questions. The result of Factor Analysis was that both variables were represented twice in the six items that loaded onto Factor 4 (*The Community's Feeling of Safety*). Thus, there was duplicate loading.

To resolve this, even though the loadings within each pair were close in value, the lower loadings in each instance of .76 and .62 respectively were removed. In each situation, the item removed was the one originating from Survey Question 3. The result was a four item factor (**Table 4.16**). Consequently, the final seven-factor POPI consisted of 43 items ($\alpha = .90$, $M = 245.34$, $SD = 27.85$). This was a reduction of 13 from the initial 56 items.

4.4.3: Factor labelling

The naming (labeling) of factors focused primarily on the highest loading three to

four items of each factor. Considering the importance of selecting labels that captured the essence of each factor, assistance was solicited from subject matter experts. The seven nameless factors were shared with 20 senior police personnel, scholars and persons engaged at the strategic level of policing as well as a focus group of approximately 40 members of police boards/commissions. These persons were asked to suggest a label for each factor after considering the respective items of each factor. The result of the input was that the seven CSSFs (factors) of POPI were labeled as follows:

CSSF 1 (**Table 4.13**) was entitled *Legitimacy of the Local Police Agency* ($\alpha = .88$, $M = 49.51$, $SD = 5.73$). The nine items of this factor reflected the community's perception of police behaviour with regard to the legitimacy of their local police agency.

CSSF 2 (**Table 4.14**), *Leadership and Management of the Local Police Agency* ($\alpha = .87$, $M = 52.41$, $SD = 7.51$), is comprised of ten items with regard to the importance of the leadership and management of a local police agency when assessing their organisational performance.

CSSF 3 (**Table 4.15**) was entitled *Enforcement by the Local Police Agency* ($\alpha = .90$, $M = 32.89$, $SD = 6.25$). The six items of this factor reflected the respondents' view that the application of the authorities of the state entrusted to police personnel is not only important when assessing how well a police agency is performing but so is the quantity and nature of that enforcement.

CSSF 4 (**Table 4.16**), *The Community's Feeling of Safety* ($\alpha = .79$, $M = 22.29$, $SD = 4.31$), consisted of four items. These collectively depicted the perception of a community with regard to the contribution their local police agency makes to 'a safe community free from a fear of crime and social disorder.' It reflected a community's desire to be comfortable, and to feel comfortable, in their community. It is about quality of life.

Table 4.13: CSSF 1 - legitimacy of the local police agency

Item	<i>n</i>	Loading
the extent to which the community trusts their police	478	.802
the extent to which the community has confidence in their police	478	.752
the extent to which police officers are perceived to be fair when interacting with the community	480	.724
the extent to which police personnel are polite when interacting with the community	491	.671
the extent to which police personnel in general communicate well with the community	490	.661
the extent to which police officers are approachable	490	.660
the extent to which police personnel are ethical when interacting with the community	478	.656
the extent to which the community is satisfied with the service provided by police personnel	487	.545
the extent to which police personnel demonstrate honesty and integrity when interacting with the community	486	.544
CSSF 1 Weighting (Average of Loadings)		.668

Table 4.14: CSSF 2 - leadership and management of the local police agency

Item	<i>n</i>	Loading
the extent to which funding is invested on an annual basis for direct employee development [skill training and/or education] as a percentage of total payroll	462	.743
the extent to which the police agency works with other police agencies when necessary	464	.716
the extent to which the police agency responsibly manages allocated resources [such as funding and human resources]	465	.674
the extent to which the police agency uses robust systems to ensure continuous evaluation, continuous improvement and change	466	.667
the extent to which the police agency uses a robust employee performance appraisal/development program	459	.657
the extent to which the police agency uses merit-based hiring and promotion practices	456	.647
the extent, overall, to which police personnel are satisfied in their workplace	466	.625
the extent to which the police agency has effective internal communications and information sharing systems	466	.587
the extent to which the police agency is responsive to changes in the social and justice environments	467	.552
the extent to which the police agency is client/customer focused	469	.458
CSSF 2 Weighting (Average of Loadings)		.633

Table 4.15: CSSF 3 - enforcement by the local police agency

Item	<i>n</i>	Loading
the number of arrests, charges or alternate dispositions with regard to all criminal offenses	469	.905
the number of arrests, charges or alternate dispositions with regard to violent crime (such as assaults, armed robbery, sexual assault, domestic violence, attempted murder and murder)	462	.879
the number of arrests, charges or alternate dispositions with regard to non-violent crime (such as theft, fraud, vandalism, break and enters into residential or commercial properties and offenses related to possession and trafficking of illegal drugs)	470	.820
the number of arrests, charges or alternate dispositions with regard to driving offenses under the criminal code of Canada [this includes impaired driving, driving over .08, impaired driving causing death, dangerous driving and dangerous driving causing death)	471	.762
the number of arrests, charges or alternate dispositions with regard to social disorder	471	.688
the number of arrests, charges or alternate dispositions with regard to driving/vehicle safety offenses under provincial legislation such as the traffic safety act or equivalents [this includes speeding, failing to stop for a red traffic light or a stop sign, safety checks of vehicles, careless driving)	471	.621
CSSF 3 Weighting (Average of Loadings)		.787

Table 4.16: CSSF 4 - community's feeling of safety

Item	<i>n</i>	Loading
the extent to which police have reduced the fear of social disorder	503	.857
the extent to which police have reduced the fear of crime	504	.756
the extent to which police have reduced the amount of social disorder	507	.729
the extent to which police have reduced the amount of crime	503	.450
CSSF 4 Weighting (Average of Loadings)		.698

CSSF 5 (**Table 4.17**), entitled *Crime and Social Disorder in the Community* ($\alpha = .86$, $M = 35.64$, $SD = 7.09$), is comprised of seven items. These reflected the importance of the frequency of crime and social disorder to the assessment of police agency performance.

CSSF 6 (**Table 4.18**), named *Misconduct of Local Police Personnel* ($\alpha = .86$, $M = 22.78$, $SD = 4.55$), included four items that collectively reflected the importance of alleged, as well as substantiated, misconduct of local police personnel when determining how well the local police agency is performing.

CSSF 7 (**Table 4.19**), *Mutually Beneficial Police/Community Relationships* ($\alpha = .70$, $M = 16.95$, $SD = 3.11$), is comprised of three items. These reflected the necessity to establish and maintain mutually beneficial relationships between the community and their local police agency.

Each of the CSSFs contributed to a different extent to POPI. Following is the equation for a weighted index based on the average of the loadings for each factor (**Tables 4.13 to 4.19**):

$$\text{POPI} = .668 (\text{CSSF 1}) + .633 (\text{CSSF 2}) + .787 (\text{CSSF 3}) + .698 (\text{CSSF 4}) + .631 (\text{CSSF 5}) + .746 (\text{CSSF 6}) + .538 (\text{CSSF 7}).$$

The implications and applications of this index are discussed in Chapter 5.

4.4.4: Reliability - internal consistency of POPI

The reliability-internal consistency of POPI was determined by summing over the seven Critical Strategic Success Factors (CSSFs) of POPI (**Table 4.20**). The result was $\alpha = .81$. The internal consistency of POPI was good.²²

4.4.5: Analysis of Variance (ANOVA)

Given the diverse nature of the four sub-groups of the stakeholder respondent group, it was hypothesised that opinions of each sub-group would differ from the others.

²²Pallant, *SPSS Survival Manual*, 98; Field, *Discovering Statistics Using SPSS, 3rd Edition*, 677.

Table 4.17: CSSF 5 - crime and social disorder in the community

Item	<i>n</i>	Loading
the number of serious injury or fatal traffic accidents	484	.775
the number of traffic accidents [not including serious injury or fatal accidents]	484	.723
the criminal code - traffic offence rate for driving offenses [such as incidents of impaired driving, driving over 0.08, impaired driving causing death, dangerous driving, and dangerous driving causing death]	484	.719
the non-violent crime rate	484	.576
the total crime rate	484	.563
the violent crime rate	484	.536
the extent of social disorder	484	.524
CSSF 5 Weighting (Average of Loadings)		.631

Table 4.18: CSSF 6 - misconduct of local police personnel

Item	<i>n</i>	Loading
the number of reported incidents of inappropriate use-of-force by police officers	475	.812
the number of formal public complaints made about police personnel conduct	477	.780
the number of formal public complaints about police personnel conduct which have been investigated and substantiated	478	.703
the number of incidents of inappropriate use-of-force by police officers that have been substantiated by investigation	476	.687
CSSF 6 Weighting (Average of Loadings)		.746

Table 4.19: CSSF 7 - mutually beneficial police/community relationships

Item	<i>n</i>	Loading
the extent to which the community feels police actively engage the community and/or community agencies to seek solutions to issues/problems affecting the community	524	.601
the extent to which the community feels police have effective communications and information sharing systems to keep the community informed	522	.508
the extent to which the police agency works collaboratively with community agencies when necessary	467	.506
CSSF 7 Weighting (Average of Loadings)		.538

Table 4.20: Reliability - internal consistency of POPI (*n* = 400)

CSSF	<i>n</i>	<i>M</i>	<i>SD</i>
1. Legitimacy of Local Police	400	55.81	5.99
2. Leadership and Management	400	58.51	7.99
3. Enforcement by Local Police	400	33.05	6.06
4. Community Feeling of Safety	400	22.61	4.03
5. Crime and Social Disorder	400	35.61	7.12
6. Misconduct of Local Police	400	22.17	4.89
7. Mutually Beneficial Relationships	400	17.02	3.05

Research Question 3 asked: *are there differences between the four sub-groups of the stakeholders concerning the CSSFs they selected for POPI?* As discussed previously, EFA identified seven factors as components of POPI. To determine the nature of any differences between the sub-groups concerning their responses, a one-way Analysis of Variance (ANOVA) was conducted. The result indicated differences were not statistically significant between the groups (**Tables 4.21 and 4.22**).

The same analysis was conducted for POPI (the combination of the seven CSSFs) (**Table 4.23**). Differences between the sub-groups of the respondent group with regard to POPI as a whole were not statistically significant, ($F(3, 390) = .800, p = .495$).

4.5: Survey Question 15

Survey Question 15 focused on the relative value respondents placed on procedural justice: *which is more important, that police solve the crime or the situation reported to them or that police personnel treat the people they encounter fairly.* Of the 463 responses, 214 (46%) placed a higher value on police solving the crime or the situation reported to them whereas 249 (54%) placed a higher value on police personnel treating the people they encounter fairly (**Table 4.24**). A closer inspection showed that a majority of police personnel (68.8%) as well as a small majority of the public/other (52.9%) considered the fair treatment of people encountered by police to be the most important. On the other hand, a majority of senior public servants (63.5%) as well as a small majority of elected municipal officials and members of police governance authorities (51.9%) considered it was more important that police solve the crime or the situation reported to them (**Table 4.24**). The differences, overall, were small. A chi-square test for independence indicated a significant association ($X^2(1, 463) = 27.22, p < .001$). Furthermore, no cells had an expected count of less than 5. The minimum expected count was 44.37.

Table 4.21: CSSFs of POPI and respondent sub-group - ANOVA

CSSF	Respondent Sub-Group	<i>n</i>	<i>M</i>	<i>SD</i>
1. Legitimacy of the Local Police Agency	Senior Public Servants	91	54.38	7.40
	Police Personnel	153	56.17	5.33
	Members of Public/Other	98	55.09	7.66
	Elected Municipal Officials and Members of Police Governance Authorities	102	56.25	5.29
2. Leadership and Management of the Police Agency	Senior Public Servants	92	56.91	6.77
	Police Personnel	153	58.99	7.16
	Members of Public/Other	96	58.82	10.07
	Elected Municipal Officials and Members of Police Governance Authorities	94	57.51	9.47
3. Enforcement by the Local Police Agency	Senior Public Servants	91	33.14	5.63
	Police Personnel	156	32.19	6.14
	Members of Public/Other	98	32.76	6.63
	Elected Municipal Officials and Members of Police Governance Authorities	104	33.90	6.61
4. Community's Feeling of Safety	Senior Public Servants	91	22.14	4.08
	Police Personnel	155	22.83	3.58
	Members of Public/Other	101	29.98	4.71
	Elected Municipal Officials and Members of Police Governance Authorities	103	22.58	4.28
5. Crime and Social Disorder in the Community	Senior Public Servants	96	36.45	6.04
	Police Personnel	157	34.99	7.18
	Members of Public/Other	104	35.10	7.44
	Elected Municipal Officials and Members of Police Governance Authorities	106	36.14	7.55
6. Misconduct of Local Police Personnel	Senior Public Servants	95	22.59	4.46
	Police Personnel	153	21.59	4.82
	Members of Public/Other	102	22.05	5.08
	Elected Municipal Officials and Members of Police Governance Authorities	105	22.65	5.33
7. Mutually Beneficial Police/Community Relationships	Senior Public Servants	93	17.04	2.79
	Police Personnel	153	17.06	2.96
	Members of Public/Other	101	16.75	3.29
	Elected Municipal Officials and Members of Police Governance Authorities	102	16.88	3.26

Table 4.22: CSSFs of POPI - ANOVA

CSSF	<i>df</i>	<i>F</i>	<i>Sig.</i>
1. Legitimacy of the Local Police Agency	3, 440	2.09	.101
2. Leadership and Management of the Police Agency	3, 431	1.58	.194
3. Enforcement by the Local Police Agency	3, 445	1.63	.182
4. Community's Feeling of Safety	3, 446	1.07	.360
5. Crime and Social Disorder in the Community	3, 459	1.22	.301
6. Misconduct of Local Police Personnel	3, 451	1.28	.279
7. Mutually Beneficial Police/Community Relationships	3, 445	.248	.863

Table 4.23: Police Organisational Performance Index (POPI) - ANOVA (*n* = 394)

Sub-groups of the Respondent Group	<i>n</i>	<i>M</i>	<i>SD</i>
Senior Public Servants	80	242.09	22.88
Police Personnel	143	243.37	25.95
Members of Public/Other	85	245.15	32.19
Elected Municipal Officials and Members of Police Governance Authorities	86	248.21	30.57

Table 4.24: Crosstabulation - survey question 15 (n = 463)

Respondent Sub-group	When assessing the performance of your police, which of the following is the most important		
	That police solve the crime or the situation reported to them	That police personnel treat the people they encounter fairly	Total
Senior Public Servants	61 (63.5%)	35 (36.5%)	96 (100%)
Police Personnel	49 (31.2%)	108 (68.8%)	157 (100%)
Members of Public/Other	49 (47.1%)	55 (52.9%)	104 (100%)
Elected Municipal Officials and Members of Police Governance Authorities	55 (51.9%)	51 (48.1%)	106 (100%)
Total	214 (46.2%)	249 (53.8%)	463 (100%)

5. DISCUSSION

5.1: Introduction

It is apparent that changes are necessary to the present measurement, analysis and management of police organisational performance if Canadian police organisations are to successfully implement contemporary performance measurement and management systems to further their embrace of the contemporary-policing model. The objective of this study was, therefore, by means of establishing an index of police organisational performance to close the gap identified in the literature between the traditional and the contemporary needs and expectations of the public with regard to the performance of their local police.

Osborne and Gaebler maintained that although public organisations tend to focus on efficiency, the public requires more; it also expects effectiveness.¹ Moreover, in rule-driven organisations (such as police organisations) performance measurements have tended to dwell on processes and the volume of outputs rather than on what effect the processes and the outputs have on the end-result – the outcome. Although processes are important because defective processes threaten the outcome, they are not an end in themselves; they are a means to the end. That is, the generation of outputs does not ensure a desired outcome(s).² In that context, the present study focused on outcome-based performance in the furtherance of public accountability.

The emergence of outcome-based performance measures in the policing sector has its origins in the public sector performance movement that emphasised accountability for value for money and results – outcomes.³ As Collier shared, “performance in the

¹D. Osborne and T. Gaebler, “The Art of Performance Management,” in *Accountability for Performance Measurement and Monitoring in Local Government*, ed. D. H. Ammons (Washington: ICMA, 1995), 35.

²Ibid, 34.

³P. Collier, “Police Performance Sovereignty: Discipline and Governmentality” in *Business Performance Management: Unifying Theory and Integrating Practice: 2nd Edition*, ed. A. Neely (Cambridge, UK: Cambridge University Press, 2007), 365.

public [police] sector is inevitably a political tool as much as it is a managerial one.”⁴ That is, for example, “performance indicators are an important means of informing the electorate of the activities undertaken by the public sector”⁵ This is critical to the notion of police accountability to the public.

Historically, police governance authorities, governments, police leaders, the public and the news media have been satisfied with the assessment of police agency performance based on easily measured outputs and activities as well as, in the case of police governance authorities, the cost of policing (inputs) as evidenced by annual police budgets. Of note is that the tally of outputs and activities in question has relied on data generated internally by the police agency. These have included the number of arrests made, the number of calls-for-service received and responded to, the time taken to respond to a call-for-service and the number of cases cleared by the police agency.

Notwithstanding this well-established practice, in relatively recent time scholars as well as some enlightened police leaders have realized that this is inadequate and does not address the strategic outcome of policing – the difference that investment in policing, such as financial and human resources, has made to the safety and quality of community life. As Hatry posited, in order to meet the demand for cost effective and valued public services, public organisations must think and act strategically by focusing on the regular measurement “of the results (outcomes) and efficiency of services or programs,” instead of focusing only on inputs, processes and outputs.⁶

In the context of strategic leadership and management as well as the principles of contemporary (community) policing (**Table 2.1**), the literature is clear that the establishment of the strategic direction of a police organisation should be in collaboration with stakeholders, which include members of the respective community(s) – the public.

⁴Ibid, 366

⁵Ibid, 366

⁶Hatry, *Performance Measurement: Getting Results*, 3.

That is, the strategic direction and priorities of the organization should reflect the circumstances of the community(s). The measurement and, thus, the management of organisational performance must be linked to the agreed upon strategic direction and priorities. However, Coleman found in a previous study that, in general, this has not been universal practice of Canadian police organisations.⁷

The present study took a different approach to the previously discussed traditional method of establishing a police organisational performance measurement regime. For instance, by incorporating private and public sector practices with contemporary-policing principles and the work of scholars, the study focused on seeking the opinions of policing stakeholders about what it is that they considered important when assessing the performance of their local police. The literature, in particular, the work of de Waal,⁸ Stanko and Bradford⁹ as well as that of Dukes et al.¹⁰ influenced the quest to establish Critical Strategic Success Factors (CSSFs) that would form the foundation of a viable strategic outcome-based performance measurement and management model. Input for the CSSFs and, thus, the construction of a police organisational performance index (POPI), was sought from not only police personnel but also consumers of policing and those responsible directly or indirectly for police governance.

It was intended that POPI would guide the evaluation of police organisations but also be instructive with regard to what police leaders and governance authorities should pay attention to when seeking to improve service delivery to their respective community(s). Said another way, it was anticipated that POPI would contribute to the reformation of how police organisational performance is viewed, led, managed and

⁷Coleman, *A Study of Strategic Management and Performance Measurement in Canadian Police Organisations*; Coleman, "Managing strategic knowledge in policing: do police leaders have sufficient knowledge about organisational performance to make informed strategic decisions?" 307-322.

⁸de Waal, *Strategic Performance Management: A Management and Behavioural Approach*.

⁹Stanko and Bradford, "Beyond Measuring 'How Good a Job' Police are Doing: The MPS Model of Confidence in Policing," 322-330.

¹⁰Dukes, Portillos and Miles, "Models of satisfaction with police service," 297-318.

evaluated in Canada.

This chapter will discuss how the findings presented in Chapter 4 address the objectives of the study and apply to the research questions posed. The chapter will first situate POPI in the environment of strategic leadership and management before explaining each factor that constituted POPI as put forth in Research Question 1. Those individual explanations will continue with discussions related to:

- Research Question 2 - *do the CSSFs identified by stakeholders as components of the POPI tend to be contemporary (outcome-focused) or traditional (output-focused)?*
- Research Question 3 - *are there differences between the four sub-groups of stakeholders concerning the CSSFs they selected for POPI?*
- Research Question 4 - *in the event that there are differences, what are explanations for this?* and
- Research Question 5 - *how do the findings of the study inform public policy to advance the strategic measurement and management of police organisational performance?*

The chapter will conclude with a discussion about the applications and implications of POPI.

5.2: The Police Organisational Performance Index (POPI)

As explained in *Managing Police Performance: A Practical Guide to Performance Management*, before organisational performance can be measured and managed a Strategic Performance Management Framework (SPMF) is necessary to help police organisations “identify its desired outcomes, prioritize its actions and understand their impact on future performance.”¹¹ McDavid and Hawthorn concurred.¹² They said that the challenges with regard to the implementation of outcome-based performance management are to first specify the expected/desired results and then to facilitate the measurement and reporting of the actual outcomes. That is, the establishment of a

¹¹*Managing Police Performance: A Practical Guide to Performance Management*, 3.

¹²McDavid and Hawthorn, *Program Evaluation and Performance Measurement: An Introduction to Practice*, 309.

strategic framework, priorities and goals that identify the expected/desired results are important if the organisation is to be able to measure and manage pertinent organisational outcomes.

The strategic framework, strategic priorities and goals have traditionally been determined by means of a strategic planning process that typically involves police leaders, the police governance authority and, sometimes, public consultations. Nevertheless, although this process can identify a strategic framework and direction, it might not necessarily result in an outcome-focused performance measurement system. Often, as the literature points out, organisational performance has continued to be measured by means of traditional-policing outputs.

The present study took a different approach to the determination of a strategic framework, direction and priorities. That is, while remaining focused on the necessity for an outcome-based measurement system consistent with the organisational strategy, the study, instead of asking stakeholders what they considered strategic goals, asked what they thought should be measured and evaluated. From that, given the essential link with organisational measurement, the strategic framework as well as goals and direction can be readily identified and managed. This is the reverse process to what has traditionally been used.

Consequently, by means of an online questionnaire, stakeholders of policing were asked what they valued with regard to the organisational performance of a police agency. That is, what were the CSSFs that they considered essential to include when determining how well a police organisation is performing? Their responses analysed to identify the factors of the Police Organisational Performance Index (POPI) (**Tables 4.13 to 4.19**). The seven factors (CSSFs) were classified as:

1. Legitimacy of the Local Police Agency;
2. Leadership and Management of the Local Police Agency;

3. Enforcement by the Local Police Agency;
4. Community's Feeling of Safety;
5. Crime and Social Disorder in the Community;
6. Misconduct of Local Police Personnel; and
7. Mutually Beneficial Police/Community Relationships.

5.2.1: The interpretation of POPI

The literature is clear that the measurement and evaluation of police agency performance must take into account the expectations of clients/customers.¹³ The seven factors (CSSFs) of POPI represent the opinions of members of the public, police personnel, members of municipal councils, senior public servants of provincial and municipal governments as well as members of police boards and commissions across Canada – the stakeholders of policing – who participated in the survey ($n=560$). By sharing what they viewed important when assessing their local police, the survey respondents made their expectations clear. It was these expectations that were reflected as the CSSFs of the measurement instrument (POPI). The result was a mechanism for meaningful accountability to the public.

It is important to note that, while responses were received from across Canada (**Table 4.2**), the construction, and subsequent distribution, of the survey was not intended to obtain a representative sample. For example, as indicated in Table 4.1 police personnel could be considered as over-represented. They represented approximately 34% of the respondents who self-identified their stakeholder group ($n = 463$). Each of the three remaining groups comprised between 20.7% ($n = 96$) and 22.9% ($n = 106$) of the total sample. Caution is, thus, necessary when interpreting findings of the analysis.

¹³Moore, Thacher, Dodge and Moore, *Recognizing Value in Policing: The Challenge of Measuring Police Performance*, 31-32; Kaydos, *Operational Performance Measurement: Increasing Total Productivity*, 63.

CSSF 1 - legitimacy of the local police agency

Factor Analysis identified *Legitimacy of the Local Police Agency* as the first of the seven factors (**Table 4.13**). The nine items that loaded on CSSF 1, which accounted for 27.69% of the total variance (**Table 4.11**), indicated that respondents felt ethical, honest and open interactions were critical to the establishment of confidence and, thus, trust in their local police (**Table 4.13**). As scholars such as Tyler and Fagan tell us, confidence and trust are necessary before the public view their police agency as having legitimacy.¹⁴ Conversely, if the community does not have confidence and trust in their police, the legitimacy of their police agency is questionable.

Legitimacy is critical to effective policing and is a defining characteristic of a democratic society. CSSF 1 fits well with the Fundamental Principles of Contemporary Policing (**Table 2.1**); in particular, those concerning ethical practices, due process, equity and fairness, community confidence and trust, a customer/client focus, consultation and collaboration with the community as well as increased communication.

The correlation between the seven factors, overall, was not large (**Table 4.12**). The strongest correlation ($r = .50$) was between CSSF 1 and CSSF 2 (*Leadership and Management of the Local Police Agency*). This is, perhaps, not surprising. That is, the personnel of organisations with good leadership and management are more likely to conduct themselves well when interacting with their various communities – their clients/customers.¹⁵

The next strongest correlation ($r = .45$) was between CSSF 1 and CSSF 4 (*Community's Feeling of Safety*) (**Table 4.12**). Arguably, an explanation for this is that if the community has confidence in, and trust of, their local police, they will likely feel

¹⁴Tyler and Fagan, "Legitimacy and Cooperation: Why Do People Help the Police Fight Crime in Their Communities?" 231.

¹⁵R. Hallowell, L. A. Schlesinger and J. Zornitsky, "Internal Service Quality, Customer and Job Satisfaction: linkages and implications for management," *Human Resource Planning*, Vol. 19, No. 2 (1996), 20-31.

more secure and have less fear of crime and social disorder. This argument is somewhat reinforced when considering that two items of CSSF 1 were: *the extent to which police officers are approachable* and *the extent to which police personnel in general communicate well with the community* (Table 4.13).

While the literature tells us that the ultimate outcome of policing is *a safe community free from a fear of crime and social disorder*, the literature also tells us that the trust and confidence that the public places in their local police is a critical outcome with regard to the legitimacy of the police agency. Therefore, as proposed for example by Tom Tyler as well as Andy Myhill, Paul Quinton, Ben Bradford, Alexis Poole and Gillian Sims, trust and confidence should be considered a contemporary indicator of police organisational performance.¹⁶ That is, in contrast to the historic reliance of the police, the public and police governance authorities on traditional measures such as enforcement and the rate of crime, a new outcome indicator appears to be emergent. For instance, the United Kingdom government and the police in England and Wales began in the recent past to turn their performance measurement attention to public confidence, trust and, thus, legitimacy of police after several decades of focusing on output measurements such as the crime rate and the amount of enforcement.¹⁷ Based on the input of stakeholders of Canadian policing, the emergence of *Legitimacy of the Local Police Agency* as CSSF 1, which accounted for 27.69% of the total variance, tends to support this as an applicable outcome performance indicator in the Canadian environment. CSSF 1 clearly reflects the importance of procedural justice to the respondents.

Legitimacy of the Local Police Agency can be considered an outcome of policing

¹⁶T. Tyler, "Legitimacy and Criminal Justice: The Benefits of Self-Regulation," *Ohio State Journal of Criminal Law*, Vol. 7, No. 1 (2009), 307-359; A. Myhill, P. Quinton, B. Bradford, A. Poole and G. Sims, "It Depends What You Mean by 'Confident': Operationalizing Measures of Public Confidence and the Role of Performance Indicators," *Policing*, Vol. 5, No. 2 (2011), 114-124.

¹⁷Waddington, "Policing with Trust and Confidence," 197-198.

in that it is the result of police behaviour during interactions of police with their respective public. Such behaviour, whether positive or negative, affects public satisfaction which in turn affects trust, confidence and legitimacy.¹⁸ CSSF 1 can, therefore, be considered outcome-focused and, thus, a contemporary CSSF.

CSSF 2 - leadership and management of the local police agency

CSSF 2 accounted for 7.50% of the total variance (**Table 4.11**). Even though the variances of all CSSFs, except CSSF 1, are relatively low (ranging from 2.88% to 7.50%) it is interesting that *Legitimacy of the Local Police Agency* and *Leadership and Management of the Local Police Agency* ranked higher than the traditional indicators of police performance – *Enforcement by the Local Police Agency* (CSSF 3) with a 4.82% variance and *Crime and Social Disorder in the Community* (CSSF 5) with a 3.69% variance (**Tables 4.11**). Although this requires further exploration, arguably, one explanation is that it indicates a tendency of respondents to focus on other than the traditional indicators of police performance manifested in CSSF 3 (*Enforcement by the Local Police Agency*) and CSSF 5 (*Crime and Social Disorder in the Community*). Having said that, the largest correlation of CSSF 2 ($r = .38$) was with CSSF 3 (*Enforcement by the Local Police Agency*) (**Table 4.12**). Although considered a medium correlation, it is reasonable to conclude that respondents would view a well-led and well-managed police organisation to be well prepared and positioned to conduct appropriate enforcement.

The items that made up CSSF 2 evidence the importance placed by respondents on quality leadership and management of their police agency. Historically, leadership and management have not been included as indicators in the formal evaluation processes of police agencies. The items of CSSF 2 included not only some of the Fundamental

¹⁸Tyler, “Enhancing Police Legitimacy;” Myhill and Quinton, “Confidence, Neighbourhood Policing and Contact: Drawing together the evidence!”

Principles of Contemporary-Policing (**Table 2.1**) such as a client/customer focus, responsiveness to the environment, continuous improvement, cooperation and collaboration but also included the effective leadership and management of financial and human resources. In the latter instance, the items of CSSF 2 included the need to ensure that employees are satisfied in their workplace, that hiring and promotion processes are merit-based, that a process is in place to address employee development, and that resources are adequately allocated for personnel development. Specifically, the item with regard to the latter, the *extent to which funding is invested on an annual basis for direct employee development (skill training and education) as a percentage of total payroll*, had the highest loading (.743) of CSSF 2 items (**Table 4.14**). This has been an oft-neglected area in many police organisations, in particular, when facing resource constraints.

Although implications of this finding are unclear, a cross tabulation of respondent sub-groups with the *extent to which funding is invested on an annual basis for direct employee development (skill training and education) as a percentage of total payroll* (**Table 5.1**) indicated that 82.4% ($n = 375$) of the total respondents ($n = 455$) considered this important (somewhat important to very important) to include as a CSSF. Not surprisingly, the majority (37%) of these responses ($n = 139$) were from police personnel. Of note, however, is that 21.6% ($n = 81$) of these responses were from elected members of municipal councils or members of police governance agencies. This is the group that ultimately makes the decisions about the amount of funding their local police agency receives. Perhaps more interesting is that 22.4% ($n = 84$) of the group which considered it somewhat important to very important were members of the public/other. Viewed differently, 84.8% of the public/other who responded to this issue ($n = 101$) felt this matter was important to include as a CSSF. Similarly, 77% of the elected officials and members of police governance authorities ($n = 81$) felt this matter important to include as a CSSF.

A chi-square test for independence indicated a significant association ($X^2 (6, 455)$)

Table 5.1: Crosstabulation - respondents with *extent to which funding is invested on an annual basis for direct employee development (skill training and education) as a percentage of total payroll (n = 455)*

<i>extent to which funding is invested on an annual basis for direct employee development (skill training and education) as a percentage of total payroll</i>	Senior Public Servants	Police Personnel	Public/Other	Elected Municipal Officials and Members of Police Governance Authorities	Total
not at all important to somewhat unimportant	6	7	11	7	31 (6.8%)
neither unimportant or important	17	10	6	16	49 (10.8%)
somewhat important to very important	71	139	84	81	375 (82.4%)
Total	94	156	101	104	455

0 cells (.0%) have expected count less than 5. The minimum expected count is 6.40

= 17.05, $p < .05$). Furthermore, no cells had an expected count of less than 5. The minimum expected count was 6.40. Caution is required, however, when interpreting this finding considering it is based on a non-probability sample; in particular, the apparent over-representation of police personnel in the sample.

Notwithstanding, although this subject requires further research, it appears that reductions of organisational funding for personnel development might not be well supported by the public as well as elected municipal officials and members of police governance authorities. Absent further research, an inference could be made that a well-educated and well-trained and, thus, well-developed police organisation is important to them.

It is also noteworthy that the literature recommends many of the items, which loaded onto CSSF 2, be included in a contemporary police performance measurement matrix. For instance, Bayley stated that the “quality of management” has been the missing element in the assessment of police organisational performance.¹⁹ David Couper, the former Chief of Police in Madison, Wisconsin, cited by Cordner and Scarborough, argued that answers to questions about the quality of a police agency, its leadership and management tell more about the police organisation than do quantitative measures of performance.²⁰

Although CSSF 2 could not be considered an outcome-based factor or indicator in the conventional sense, it could be considered an intermediate-outcome (**Table 1.1**) with respect to the other six factors. It could, for example, suggest that from the respondents’ perspective an organisation which is well led and managed (CSSF 2) engenders confidence and trust (CSSF 1) such that the community feels satisfied the organisation will achieve the desired outcome of policing – *a safe community free from a fear of crime*

¹⁹Bayley, “Measuring Overall Effectiveness or, Police Force Show and Tell,” 51.

²⁰G. Cordner and K. E. Scarborough, *Police Administration, 6th Edition*. (Newark, NJ: LexisNexis, 2007), 369-370.

and social disorder. This requires exploration by means of future research.

This is supported by leadership and management literature that indicates, for instance, that a satisfied and well-prepared workforce is inclined to deliver superior customer service compared to a workforce that is dissatisfied.²¹ Moreover, it is reasonable to conclude that an organisation which dedicates resources to the professional development of personnel will experience increased employee competence and self-confidence that will result in superior performance and customer service.²²

CSSF 2 is important in that it can inform police governance and funding authorities as well as police leaders about the important leadership and management issues in their organisation. That is, while it can be used in the performance measurement context (i.e., after the fact), it can also be used proactively to guide the structure, strategic direction and appropriate resourcing of a police organisation so as to achieve superior results that will meet community needs and expectations. Based on the aforementioned, CSSF 2 can be considered a contemporary CSSF.

CSSF 3 - enforcement by the local police agency

CSSF 3 accounted for 4.82% of the total variance (**Table 4.11**). This compares to 27.69% for CSSF 1 and 7.50% for CSSF 2. While enforcement is an important tool of police, it is only one tool among several used to police a community. For example, Bayley stated that research in the U.S. and the U.K. indicated that depending on the jurisdiction only 15-25% of a police officer's time was spent enforcing the law such as making arrests and laying charges. He added that this is likely closer to 7-10% when the data are more closely examined.²³

²¹Hallowell, Schlesinger and Zornitsky, "Internal Service Quality, Customer and Job Satisfaction: linkages and implications for management," 20-31.

²²J. L. Heskett, T. O. Jones, G. W. Loveman, W. E. Sasser, Jr. and L. A. Schlesinger, "Putting the Service-Profit Chain to Work," *Harvard Business Review*, Vol. 86, No. 7/8 (July, 2008), 118-129; R. Heintzman and B. Marson, "People, service and trust: is there a public sector service value chain?" *International Review of Administrative Sciences*, Vol. 71, No. 4 (2005), 549-575.

²³Bayley, *Police for the Future*, 17.

The positive correlation ($r = .41$) of CSSF 3 and CSSF 5 (*Crime and Social Disorder in the Community*) (**Table 4.12**) suggests a positive relationship from the perspective of respondents between the nature and quantity of enforcement (**CSSF 3**) and the amount of crime and social disorder (**CSSF 5**). This is interesting in that although it is not unexpected that the collective perspective of respondents would reflect this, it tends to contradict the literature. That is, the literature is clear that enforcement alone is insufficient to reduce crime and social disorder. For instance, the volume of enforcement can be influenced by the amount of attention and effort a police organization puts into the investigation of different offences but it tells nothing about whether the community is any safer as result.²⁴

Research cited by Bayley states that, “arrest or clearance rates have not been found to be positively related to crime rates.”²⁵ That is, the crime rate, overall, is not affected by the success rate in solving/clearing criminal offences. Moreover, he found that the critical factor in solving a criminal offence is whether the community, victims and/or witnesses provide information to police to identify the suspect(s). The value, therefore, of relationships and trust between the community and the police is essential to obtaining the necessary support and information.²⁶ On that basis, it is reasonable to hypothesise that CSSF 1, CSSF 3 and CSSF 7 would have a positive correlation in the furtherance of a well-functioning police agency.

Nevertheless, the correlation between CSSF 3 and CSSF 7 (*Mutually Beneficial Police and Community Relationships*) was the smallest and, furthermore, was negative ($r = -.024$) (**Table 4.12**). Notwithstanding the aforementioned postulation that CSSFs 1, 7 and 3 would have a positive relationship, a larger negative correlation between CSSF 3 and CSSF 7 might have been expected. For instance, even though enforcement of the

²⁴Blumstein, “Measuring what matters in Policing: The police and measurement of their impact,” 5.

²⁵Bayley, *Police for the Future*, 7.

²⁶Tyler, “Enhancing Police Legitimacy,” 84-99.

various authorities of the state is an essential tool of policing, depending on the balance and nature of that enforcement and the degree that the items of CSSF 7 are applied, it can sometimes result in negative community feelings. Furthermore, as policing literature clearly states, increased police/community collaboration, co-operation and communication (CSSF 7) can result in a reduced need to use law enforcement as a policing tool (CSSF 3). That is, proactive approaches can reduce the need for reactive approaches.

The six items that loaded on CSSF 3 (Table 4.15) are considered by the literature to be traditional outputs of policing activities. As discussed in Chapter 2, outputs are not generally considered by scholars to be the preferred measures of police organisational performance because they do not reflect the end-result – the outcome – of police activities. For instance, a recorded high number of arrests and charges do not necessarily mean that a community is proportionately safer. Moreover, as already mentioned, the literature is also clear that the measurement, and thus management, of police performance based on traditional outputs, such as enforcement data, is flawed because the data can be ‘gamed’ and manipulated by police personnel and police agencies.²⁷

Bayley concurred. He stated that police can more easily control what they produce (outputs) than what they achieve (outcomes). Moreover, output data are easier and less costly to collect and disseminate than outcome data.²⁸ Furthermore, true to the tenets of contemporary-policing, crime and social disorder reduction is more complex than the application of additional enforcement. As Alpert and Moore explained, police are unable to reduce crime on their own because crime is influenced by social, economic

²⁷Osborne and Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, 355; Waddington and Neyroud, “Special Edition on Performance Management-Introduction,” 253; Haggerty, *Making Crime Count*, 29-32; R. C. Sonnichsen, “Measuring Police Performance,” in *Monitoring Performance in the Public Sector: Future Directions from International Experience*, eds., J. Mayne and E. Zapico-Goni (London, UK: Transaction Publishers, 1997), 221-222.

²⁸Bayley, *Police for the Future*, 97.

and political forces outside of their control.²⁹ Nevertheless, respondents to this study indicated that such measures, as part of a broader police organisational performance index, are important to them.

CSSF 3, due to its reliance on outputs of policing, could be described as a traditional factor. However, some scholars have conceded that it could be viewed as an intermediate outcome,³⁰ and, thus, a contemporary indicator. Based on respondent input it has been recognised as a CSSF for the present study; albeit one that tends to the traditional. This requires further research to refine the future inclusion of *Enforcement by the Local Police Agency* as a CSSF of POPI when considering its limitations as an accurate indicator of organisational performance.

CSSF 4 - community's feeling of safety

CSSF 4, which accounted for 4.23% of the total variance (**Table 4.11**), consisted of four items that reflected respondents' concern about the need to reduce crime and social disorder as well as the perceived crime and social disorder in their community (**Table 4.15**). The perception of both is sometimes substantially higher than the prevalence of actual crime and social disorder. The literature tells us that this distorted view contributes to community anxiety as well as a feeling of insecurity and, thus, tends to result not only in a reduction in the quality of community life but also is considered a criminogenic factor.³¹

On that basis, police should strive to reduce not only the frequency of crime and social disorder but should also address the community's perceptions of the incidence of crime and social disorder. While there are various means to achieve this including

²⁹Alpert and Moore, "Measuring Police Performance in the New Paradigm of Policing," 267.

³⁰G. A. Bayne and J. Law, "Setting Public Service Outcome Targets: Lessons Learned from Local Public Service Agreements," *Public Money and Management* (August, 2005), 253-260; S. O. Milligan, L. Fridell and B. Taylor, *Implementing on Agency-Level Performance Measurement System: A Guide for Law Enforcement Executives* (Washington: PERF, 2006), 12-13.

³¹Kelling, "Order Maintenance, the Quality of Urban Life and the Police: A line of Argument," 296-308.

accurate and clear dissemination of information by the news media, one important method is to actively reduce visual cues that suggest crime might be prevalent by implementing programs such as graffiti prevention/removal. The reduction of crime and social disorder is, of course, critical to the quality of community life in that the result is a reduction of victimisation. This has social as well as economic benefits to the community. The correlations between CSSF 4 and the other factors were mixed. They ranged from $r = .45$ with CSSF 1 and $r = .44$ with CSSF 3 to $r = .09$ with CSSF 7 (**Table 4.12**).

CSSF 4 can be considered a contemporary factor of performance measurement in that it can be viewed as outcome-focused. That is, of the seven factors, CSSF 4 seemed to best reflect the outcome of policing from a contemporary-policing perspective. It encompassed the end-result of all the activities undertaken either directly or indirectly by police concerning the fear and incidence of crime and social disorder and, thus, the quality of community life.

CSSF 5 - crime and social disorder in the community

CSSF 5, which accounted for 3.69% of the total variance (**Table 4.11**), reflected the value respondents placed on the amount of crime and social disorder in their community when assessing local police performance (**Table 4.16**). In the case of criminal offences, this is usually called the *crime rate*. While two items of CSSF 5, *the number of serious injury and fatal traffic accidents* and *the number of traffic accidents (not including serious injury or fatal accidents)*, have not been traditional indicators of police performance,³² their loadings on CSSF 5 (.775 and .723 respectively) were higher than that for the *violent crime rate* (.536) which has been a long-time traditional indicator (**Table 4.16**). A third item, the *extent of social disorder*, with a loading of .524, has also

³²Furthermore, data in this regard are not collected or reported by Statistics Canada's Canadian Center for Justice Statistics.

not historically been included in measures of organisational performance.

One problem with using the *crime rate*, the amount of social disorder or related metrics as performance indicators is that they only rely on reported incidents. For example, the *crime rate* does not include the unreported incidents of crime. It also does not take into consideration situations/offences that were not responded to by police or do not constitute an offence or those situations/offences that police classify as not-reportable situations. Thus, because of police organisation policies and/or manipulation by police personnel, the amount of reported crime and social disorder is often substantially less than the actual extent.³³ This brings into question their value as indicators in the absence of considering the extent of unreported crime and social disorder as indicated by Statistics Canada's *General Social Survey*.³⁴

More specifically, when examining the *crime rate*, a difference is apparent between crime reported to police and, therefore, reported by Statistics Canada's in their annual publication *Police-reported crime statistics in Canada*³⁵ and the victimisation reported anonymously through the *General Social Survey*. While this varies by offence category, in the situation of offences such as sex offences the discrepancy can be substantial. Furthermore, John Hepburn is clear that a focus on indicators such as the crime rate and clearance rate of crime reflects only the crime control function of policing and ignores the due process necessary for policing in a liberal democracy.³⁶

Thus, the quantity and frequency of reported crime as well as that of social disorder, while of an understandable concern to communities, have not been considered

³³Osborne and Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*, 355; Waddington and Neyroud, "Special Edition on Performance Management-Introduction," 253.

³⁴Available: <http://www.statcan.gc.ca/daily-quotidien/100928/dq100928a-eng.htm>

³⁵M. Dauvergne and J. Turner, *Police-reported crime statistics in Canada, 2009*, (Ottawa: Statistics Canada, 2010) Available: <http://www.statcan.gc.ca/pub/85-002-x/2010002/article/11292-eng.pdf> [2011, July].

³⁶J. R. Hepburn, "Crime Control, Due Process, and the Measurement of Police Performance," *Journal of Police Science and Administration*, Vol. 9, No. 1 (March, 1981), 95.

by scholars to be a good indicator of police performance. This is particularly so when viewed in isolation of outcome-based performance measures. Notwithstanding the aforementioned, the extent of crime (the *crime rate*) has been a long-standing traditional output-based indicator of police performance.

The items of CSSF 5 include the *crime rate*, the *non-violent crime rate* and the *violent crime rate*³⁷ (**Table 4.16**). Because the *crime rate* is all-encompassing in that it includes criminal offenses ranging from causing a disturbance and breach of probation to auto theft and housebreaking to sexual assault and murder, the argument can be made that non-violent offenses, such as housebreaking, and violent offences, such as murder, are accounted for twice in CSSF 5. Therefore, before constructing key performance indicators (KPIs) for this factor, further study is necessary to refine the items of CSSF 5.

What is clear from the findings is that respondents considered the *crime rate* in its various manifestations important when evaluating performance of their local police. Although, the literature tells us that the *crime rate* is unreliable in terms of assessing the outcome of policing, the literature also suggests that it could be considered an intermediate-outcome. In the current situation, CSSF 5 could be classified as an intermediate-outcome (**Table 1.1**) related to CSSF 4. Notwithstanding this, it is clearly a traditional output-based CSSF. Further research is necessary to determine the future inclusion of CSSF 5 in POPI.

CSSF 6 - misconduct of local police personnel

CSSF 6, which accounted for 3.18% of the total variance (**Table 4.11**), reflected the concerns of respondents about the behaviour of police personnel (**Table 4.17**). Of note, when the variables of the questionnaire were constructed, a distinction was made between *reported* incidents of misconduct and those *substantiated* by investigation

³⁷Starting in 2009, Statistics Canada's Centre for Criminal Justice Statistics implemented a weighted *Crime Severity Index*. This is also dependent on reported crime and, thus, is derived from the *crime rate*. On that basis and considering its relative newness, discussion is not specifically included in the present study.

(Appendix 3). Although both circumstances loaded on CSSF 6, the reported incidents loaded higher than the substantiated incidents (**Table 4.17**). This suggests that respondents might be more concerned about allegations that are reported rather than those which are supported by subsequent investigation. This requires further exploration.

Arguably, CSSF 6 is related to CSSF 1 (*Legitimacy of the Local Police Agency*). That is, as the literature points out, inappropriate behaviour, in particular that which is not adequately investigated and dealt with, lends itself to a reduction of confidence and trust and, thus, the legitimacy of a police agency. However, the correlation of CSSF 6 with CSSF 1 was relatively low ($r = .28$). The reason was not immediately clear based on the findings of the present study; in particular, when considering that *Legitimacy of the Local Police Agency* ranked first of the seven factors.

The consideration of police personnel misconduct has not historically been included as a formal measurement of organisational performance. The literature suggests, however, that it should be a factor.³⁸ Based on responses from stakeholders, it is apparent that CSSF 6 (*Misconduct of Local Police Personnel*) can be considered a contemporary CSSF. In terms of whether it is outcome-focused, it can be considered an intermediate-outcome (**Table 1.1**) to the outcome reflected in CSSF 1 (*Legitimacy of the Local Police Agency*).

CSSF 7 - mutually beneficial police/community relationships

Although the questionnaire was focused in part on the reactive activities of police, responses were also sought with regard to police personnel engaging and working with the community and other police agencies to make for a safer community – proactive activities. The last factor of POPI, CSSF 7, which accounted for 2.88% of the total variance, reflected this (**Table 4.18**). It is interesting that it listed as the last of the seven

³⁸Bayley, “Measuring Overall Effectiveness or, Police Force Show and Tell,” 43; G. W. Cordner, K. E. Scarborough and R. Sheehan, *Police Administration, 5th Edition* (New Providence, NJ: Anderson Publishing, 2004), 330.

factors. Arguably, in the contemporary-policing environment as evidenced by the Fundamental Principles of Contemporary-Policing (**Table 2.1**), the items of CSSF 7 are necessary, if not vital, to achieve success with regard to, for example, CSSFs 3, 4 and 5.

On that basis, CSSF 7 could have been expected to list before these factors and, thus, should have accounted for a variance greater than 2.88%. While the reason for this placement requires future study, it could suggest that respondents, overall, might not have universally embraced the concept of contemporary-policing as represented by the Fundamental Principles of Contemporary-Policing (**Table 2.1**). That is, it might be indicative of a bias toward reactive traditional-policing.

Historically, the extent to which police agencies establish and maintain effective community relationships has not been included in the assessment of police performance. Notwithstanding its ranking as the last of the seven factors, findings of the present study indicate that this should now be considered for inclusion. While not an outcome, CSSF 7 can be considered an intermediate-outcome (**Table 1.1**) with regard to CSSFs 1 and 4. On that basis, CSSF 7 can be considered a contemporary CSSF.

5.2.2: Do the CSSFs of POPI tend to be contemporary (outcome-focused) or traditional (output-focused)?

Research Question 2 asked: *do the CSSFs identified by stakeholders as components of the POPI tend to be contemporary (outcome-focused) or traditional (output-focused)?* As previously discussed, five of the seven CSSFs (**CSSFs 1, 2, 4, 6, and 7**) identified by study participants were, based on the literature, considered contemporary indicators of performance (**Table 5.2**). That is to say, they can be classified as either outcome-based or intermediate outcomes of performance in accordance with criteria found in Table 1.1. Furthermore, these indicators have not traditionally been used to measure organisational performance. This is encouraging.

Nevertheless, two CSSFs (**CSSFs 3 and 5**) tended, in the context of the literature,

Table 5.2: CSSFs - contemporary or traditional?

CSSF	Contemporary		Traditional
	Outcome-focused	Intermediate outcome-focused	Output-focused
1. Legitimacy of the Local Police Agency	X		
2. Leadership and Management of the Local Police Agency		X	
3. Enforcement by the Local Police Agency			X
4. Community's Feeling of Safety	X		
5. Crime and Social Disorder in the Community			X
6. Misconduct of Local Police Personnel		X	
7. Mutually Beneficial Police/Community Relationships		X	

to be traditional output-based indicators (**Table 5.2**). The literature advises that although these have historically been used to support and measure reactive traditional-policing, the generation and measurement of outputs does not readily indicate whether a strategic outcome has been attained.³⁹

Of note is that traditional CSSFs 3 and 5 jointly accounted for only 8.56% of the variance, whereas contemporary CSSFs 1 and 2 together accounted for 35.19% (**Table 4.11**). Future study might explore the concept of a two-factor index consisting of CSSFs 1 and 2. It could be argued that if police governance authorities and police leaders address the legitimacy of their police organisation (CSSF 1) by providing a high standard of leadership and management (CSSF 2), issues such as community collaboration and consultation, appropriate personnel conduct and a safe community free from a fear of crime and disorder might fall into place. This requires further study.

Overall, it appears that respondents were inclined to be progressive and supportive of new indicators of police performance, while at the same time a tendency seemed to persist for support of frequently used traditional output-based indicators which have fallen somewhat into disrepute. This raises the question: given the cross-section of stakeholders who participated in the study, why in the era of contemporary-policing and post public-sector reform, which have an increased focus on the end-result – the outcome – of policing activities, would POPI include two factors (CSSFs 3 and 5) that according to the literature are a) not outcome-focused and b) are poor indicators of the outcome of policing activities? The answer is unclear. One explanation might be that because these have been long-established output-based indicators and measures of performance that respondents, in general, were not aware of their limited value in determining the effectiveness of policing which Osborne and Gaebler said the public expect.⁴⁰

³⁹Osborne and Gaebler, “The Art of Performance Management,” 35.

⁴⁰Ibid.

In that regard, it is important to note that POPI is based on stakeholder opinion about what is important and, thus, relevant to them when assessing their local police. The present study did not attempt to determine their knowledge about policing in general or their local police agency in particular. The researcher acknowledges that opinions reflected in the results could have been shaped in some cases by inadequate knowledge about policing. That said, with the exception of the respondent group *public/other*, respondents had a direct or indirect role with regard to police governance, police funding or police leadership and management. Notwithstanding, this issue requires further exploration by way of future research.

5.2.3: Are there differences between the stakeholder sub-groups concerning the CSSFs of POPI?

As previously discussed, the study sought opinions of police personnel, police governance authorities, senior public servants of provincial and municipal governments, elected officials of municipal governments and members of the public – the stakeholders of policing – in order to learn what it is that they consider when assessing the performance of their local police. This was a diverse group with different experiences and perspectives about the operation of a police agency and the end-result of police activities. It was, therefore, hypothesised that these groups might have different opinions about what was important to the assessment of their local police agency. Research Question 3, therefore, asked: *are there differences between the four sub-groups of the stakeholders concerning the CSSFs they selected for POPI?* Further to analysis (one-way ANOVA), it was found that although there were some relatively small differences of opinions between the four sub-groups (**Tables 4.21 and 4.22**), each of which has a different perspective and interest in their local police, they were not statistically significant ($p > .05$). Furthermore, the differences between the sub-groups within POPI (**Table 4.23**) as a whole were not significant ($p > .05$). On that basis, the research

hypothesis was rejected.

As a follow up to Research Question 3, Research Question 4 asked: *in the event there are differences, what are explanations for this?* Given the aforementioned finding, an explanation(s) is not applicable. However, given that the sample was not a probability sample, this issue is worthy of further research using a random stratified sample.

5.3: Procedural justice and legitimacy

Tyler maintained that procedural justice on the part of police personnel is integral to the public viewing their police agency as operating with legitimacy.⁴¹ The literature tells us that when persons were asked whether it is more important *that police solve the crime or the situation reported to them* [the outcome of the contact] or *that police personnel treat the people they encounter fairly* [procedural justice], they tended to see fair treatment by police as being more important than the “favourability of the outcome of the contact.”⁴² That is, it was procedural justice which was more important to them when evaluating their police agency as opposed to the resolution of the crime or the situation police responded to. Given the relevance of procedural justice, and thus legitimacy, to the present study, this question was included in the questionnaire (**Survey Question 15**).

The leading factor of POPI was *Legitimacy of the Local Police Agency (CSSF 1)*. As already discussed, CSSF 1 demonstrated the value that stakeholders placed on public confidence and trust and, thus, the legitimacy of their local police. This was an important finding in that it marked a departure from the traditional components of Canadian police performance measurement regimes. It was not only clear that procedural justice was important to respondents but that they indicated it should also be a part of the formal assessment of police agency performance.

When considering the link between procedural justice, public trust, public

⁴¹Tyler, “Enhancing Police Legitimacy,” 84-89.

⁴²Tyler and Fagan, “Legitimacy and Co-operation: Why do People help the Police Fight Crime in their Communities?” 231.

confidence and the perceived legitimacy of a police agency,⁴³ the finding with regard to Survey Question 15 tended to indicate some support for, and consistency with, CSSF 1 (Table 4.24). However, the difference of opinions between groups appears small. Procedural justice was more important to the majority (54%) of respondents ($n = 463$). On the other hand, 46% did not consider this the more important of the two options. All sub-groups of the stakeholder group were, however, represented in both categories (Table 4.24). Unlike the U.S. research cited by Tyler, the differences of opinions in the present study were small even though the difference was found significant ($p < .001$). Nevertheless, when considering the non-probability sample of the present study, such finding is considered unreliable. This requires further research to better understand this in the Canadian context.

5.4: Applications of POPI

Having established the Police Organisational Performance Index (POPI), the question arises: *how do the findings of the study inform public policy with regard to the advancement of the strategic measurement and management of police organisational performance?* (Research Question 5). Four applications of POPI, which are applicable regardless of the size of the police agency or the model of governance, have been identified.

Application 1:

The main purpose of POPI was to provide the framework for a superior model of strategic measurement and, thus, strategic management of organisational performance. Consequently, by means of an index of CSSFs (POPI), a foundation was created for the transformation of the performance measurement of Canadian police agencies from a traditional output-focus to a contemporary outcome-focus. That is, the establishment of a strategic measurement and management framework that is relevant and responsive to the

⁴³Tyler, "Enhancing Police Legitimacy," 84-99.

contemporary environment of public sector administration and management (**Table 2.1**).

Subsequent to the future establishment of key performance indicators (KPIs) for each CSSF, the use of POPI to assess organisational performance can establish a total organisational performance ‘score’ for each local police agency. It is important to note that POPI was not intended to have a maximum score of, for example, 100%. That is, rather than a police organisation striving to achieve a predetermined maximum score, POPI is intended as a contemporary benchmarking instrument. For instance, the POPI score of a police agency can indicate whether current organisational performance is better or worse than previous years or better or worse than scores for similar police agencies. This can inform policy and practices necessary for the pursuit of continuous improvement and a customer/client focus (**Table 2.1**).

In this regard, while POPI was designed to create a total score, a review of each CSSF score is not only possible, but important. That is, by means of the equation for the weighted index:⁴⁴

$$\text{POPI} = .668 (\text{CSSF } 1) + .633 (\text{CSSF } 2) + .787 (\text{CSSF } 3) + .698 (\text{CSSF } 4) + .631 (\text{CSSF } 5) + .746 (\text{CSSF } 6) + .538 (\text{CSSF } 7),$$

which identifies the relative value of each constituent factor, the score of each CSSF can enable the identification of areas in a police agency that require improvement in order to meet stakeholder expectations. Decisions can then be made about where to place emphasis to improve organisational performance and, thus, improve the score not only for that CSSF(s) but also for POPI as a whole.

The score(s) will be dependent on the data collected for each CSSF through the respective KPIs. Whereas traditional organisational performance models rely substantially on output data already generated by police agencies, the CSSFs of POPI, with perhaps the exception of CSSFs 3 and 5, will require the generation of new

⁴⁴Weighting was determined by averaging the item loadings of each CSSF. Refer to Tables 4.13-4.19.

outcome-focused data. Although some of this might potentially be obtained from Statistics Canada's *General Social Survey (GSS)*, new data will likely need to be generated by the police agency through such means as a community satisfaction survey customised to meet the requirements of POPI. It is anticipated that once the satisfaction survey is developed and standardised, it can be used regardless of the police agency. That is, the required data for POPI will be the same for a small police agency as for a large police agency.

It is expected that once fully operational, by means of the required KPIs, it is estimated that a minimum of 3 years annual use will be required to create a history of scores necessary to establish benchmarks that can best inform strategic performance management and decision-making as well as identify trends. After a similar period of time, research should examine the POPI model to see if it is indeed an improvement to the extant traditional performance measurement models. Necessary post-evaluation adjustments can then be made.

Application 2:

As an alternative to, or perhaps complementary to, its utility as a measurement tool, POPI can provide important insight for public policy makers about what those responsible for policing should be paying attention to. In other words, it illustrates what, based on stakeholder expectations, is important when considering the performance of their local police. It represents community input and feedback by way of consultation – an important principle of contemporary-policing (**Table 2.1**).

The weighted factors indicate the relative policy, strategic leadership and management emphases that should be placed on each CSSF within POPI. POPI, even if not used as a measurement tool, is, thus, in a position to inform where changes can be made to strategic management systems. POPI, due to its unique construction, can ensure such systems are congruent with the expectations of the stakeholders of policing. POPI,

thus, not only provides an improved vehicle for public accountability by means of performance measurement, but in this role will also be valuable as a tool for strategic planning, such as the establishment of a strategic framework, direction and priorities, and to inform policy necessary for continuous organisational improvement; it can be used as a gap analysis tool.

Application 3:

The seven CSSFs of POPI can provide a framework for auditors when embarking on an audit of a police agency. While depending on the circumstances an audit might be necessary that goes beyond the seven factors, POPI makes clear what the public expects to be functioning well in their police agency. Given, public expectations of a public sector customer/client-based organisation, such as policing, shape the required accountability, this is important.

Application 4:

POPI provides an opportunity to educate police personnel, police governance authorities and the public about what is important to assess when determining how well their local police agency is performing. The Fundamental Principles of Contemporary Policing (**Table 2.1**) include a customer/client focus as well as co-operation, collaboration and communication with the community. POPI can operationalise these principles by providing an effective platform with which to engage local stakeholders about police performance and whether the CSSFs of POPI reflect their view of what is important concerning the performance of their local police agency. This dialogue and opportunity to build and maintain mutually beneficial relationships (CSSF 7) is important given that the components of POPI will require periodic review in order to respond to the dynamic internal and external environments within which police agencies function.

5.5: Summary

The establishment of POPI was achieved by directly engaging the stakeholders of

policing (the public, elected municipal officials, members of police governance authorities, senior public servants, police leaders and police personnel) in the identification of the critical strategic success factors (CSSFs) of policing “in which the organisation has to excel in order to be successful.”⁴⁵ This is an important step in the evolution of the strategic performance measurement and management of policing from a traditional model to a contemporary model that embraces community collaboration and improves public accountability.

POPI in the context of the contemporary open, responsive and collaborative model of policing (community-policing) can form an insightful foundation for the future development and refinement of the means to effectively measure and monitor the performance of a police agency. By providing an improved means of identifying the return on the investment (ROI) of resources for police agencies, as already discussed POPI can make an important contribution to not only public accountability but can also deliver relevant information to strategic decision-makers about how well the police agency is meeting expectations.

Even though POPI moves away from a narrow cost-centred focus by embracing a much broader array of primarily outcome-based indicators, attention to the cost of policing was not ignored; it loaded third of the 10 items of CSSF 2 (**Table 4.14**). This indicates continued relevance and concern about resource management while paying attention to effectiveness – the outcome.

Knowling was clear that performance metrics must be selected and designed such that they can be disaggregated in order to be meaningful to employees and supervisors who can then relate what they do on a daily basis to the “high corporate metric.”⁴⁶ POPI meets this criterion in two ways. First, each CSSF can be disaggregated into its

⁴⁵de Waal, *Strategic Performance Management: A Managerial and Behavioral Approach*, 113.

⁴⁶Knowling, Jr., “Leading with Vision, Strategy and Values,” 182-183.

respective component items. This can provide clarity for personnel at the operational management level in that they can better relate to the language of the items as opposed to the concept of the more abstract CSSF. Second, the items of each CSSF can form the basis for the two to three KPIs necessary for each CSSF. In both cases, POPI can provide the opportunity for employees to relate to the “high corporate metric” that Knowing referred to.

Since POPI is founded on community input as well as organisational effectiveness – an outcome focus – its application and future development can support the transformation of policing from the closed reactive traditional model of policing and performance measurement to an open contemporary model of strategic performance management that will be relevant to community(s). Because it can assist in the establishment of strategic direction, it is able to contribute to the improved deployment of financial, human and technological resources and, thus, improved service delivery. This will enhance *value for money* – the ROI – and, thus, public accountability.

The design and development of POPI offers insight into how structures, systems and policies can be developed by the application of the Fundamental Principles of Contemporary-Policing (**Table 2.1**) and, thus, advance the evolution of outcome-based contemporary-policing as a model of policing focused on meeting public expectations and needs. POPI, because of its consultative and collaborative relationship with the community(s), typifies a contemporary-policing approach to ensure the effectiveness and accountability that Osborne and Gaebler tell us is expected by the public.⁴⁷

Next steps, in particular for Application 1, include the identification of two to three KPIs for each CSSF. These will determine the specific data necessary for operationalisation as a measurement instrument. When that is complete, a pilot project should be conducted in a medium-sized Canadian police organisation. However, none of

⁴⁷Osborne and Gaebler, “The Art of Performance Management,” 35.

these prerequisites preclude police agencies and governance authorities from using Applications 2, 3 and 4 sooner.

It is noteworthy that POPI was not intended to be a static instrument. The environment of policing is dynamic and, thus, the components – the CSSFs – of POPI should be reviewed every 3-5 years⁴⁸ by means of input from stakeholders and then modified if necessary. Care will be essential, though, so that modifications do not jeopardise the ability to benchmark against historic results.

⁴⁸Strategic planning cycles tend to be 3-5 years.

6. CONCLUSION

Over recent decades, the public has demanded and expected increased accountability not only for how public resources are used but also for the outcomes achieved. As Robert Behn explained, it could be argued that in the public sector “accountability for the use (abuse) of power is nothing more than accountability for finances and fairness.”⁴⁴¹ However, he stressed, while this accounts for how government conducts its business, the public is also concerned that government be accountable for what it actually accomplishes.⁴⁴² That, of course, is determined by some form of measurement of outcome performance. It is performance measurement, he insisted, that “is essential to responsible democratic policing.”⁴⁴³

Scholars of policing agree that meaningful measurement of the organisational performance of police agencies is crucial. For instance, as Bayley said,

how performance is measured affects not only what the public knows about the police, but also the character of operations and the management climate Performance measurement should be viewed as an integral, ongoing part of the management of policing.⁴⁴⁴

Although, according to the literature, some positive developments appear to have taken place in the recent past, there has been an apparent dearth of objectively determined measurement models that can be used to determine whether or not a police organisation is meeting its outcome goals and is, thus, addressing expected accountability. Ideally, police performance measurement models should focus on outcomes such as the difference made to community safety and the quality of community life, public satisfaction, and value-for-money or, to use a private sector term, a satisfactory return on investment (ROI).

As articulated by Rick Hanson and Paul McKenna, public sector reform created

⁴⁴¹R.D. Behn, *Rethinking democratic accountability* (Washington: The Brookings Institution, 2001), 9.

⁴⁴²Ibid, 10.

⁴⁴³Ibid, 9.

⁴⁴⁴Bayley, “Measuring overall effectiveness or Police Force Show and Tell,” 51.

pressures on police agencies to transform the way they conduct business from a reliance on operational leadership to the embrace of strategic organisational leadership and from an administrative culture to a managerial culture.⁴⁴⁵ As previously discussed, indications are that this transformation has been incomplete across Canada. Consequently, the purpose of the present study was to establish a foundational model – the Police Organisational Performance Index (POPI) – for a non-traditional approach to strategic performance measurement that would contribute to the evolution of performance measurement and management and also be congruent with the contemporary-policing model in the environment of post public-sector reform. POPI, which has been constructed to incorporate the tenets of managerialism, is well positioned to support the required transformation.

Behn maintained “accountability requires expectations.”⁴⁴⁶ That is, police agencies should be led and managed to meet expectations of their stakeholders. POPI was constructed based on the opinions of stakeholders of policing about what factors they viewed important to include in an evaluation of the performance of their local police agency. Said another way, their responses were their expectations of what a police agency must attend to in order to be deemed as successful. Thus, POPI can be considered a responsive accountability model because it is based on the direct expectations of the public – the partners and consumers of policing. In that regard, POPI can also be considered a unique performance measurement model because it incorporated the direct input of stakeholders of policing. Furthermore, the study demonstrated that stakeholders were receptive to the opportunity to provide such input.

As posited by de Waal, “the effectiveness of performance management information is determined by its contribution to organisational performance.”⁴⁴⁷ That is,

⁴⁴⁵R. Hanson and P. McKenna, “Respectful Leadership: The Emergence of Upward Nobility as a Way of Life in Policing,” *Policing: A Journal of Policy and Practice*, Vol. 5, No. 4 (2011), 289.

⁴⁴⁶Behn, *Rethinking democratic accountability*, 63.

⁴⁴⁷de Waal, *Strategic Performance Management: A Management and Behavioural Approach*, 16.

performance measurement is ineffective unless it is managed for the purpose of continuous organisational performance. The establishment of POPI as a foundation to aid the contemporary measurement of the organisational performance of police agencies is an important step forward in the management of organisational performance and, thus, continuous improvement and accountability.

In that regard, although the primary purpose of POPI is to facilitate the ‘scoring’ and ‘benchmarking’ of a police agency’s performance, it has added-value. For instance, just as importantly, police leaders and governance authorities can apply POPI to identify where to put emphasis in their quest for continuous organisational improvement. It can also be used to assist with the establishment and/or the validation of the strategic direction of a police organisation as well as to provide a framework for the education of stakeholders about what has been identified as important with regard to police organisational performance. Considering the unique construction method of POPI, when its various applications are operationalised it is capable of reflecting “not only what the public knows about the police, but also the character of operations and the management climate” of the police agency.⁴⁴⁸ Moreover, it can be viewed “as an integral, ongoing part of the management of policing.”⁴⁴⁹

Of the seven CSSFs of POPI, five (CSSFs 1: *Legitimacy of the Local Police Agency*, 2: *Leadership and Management of the Local Police Agency*, 4: *Community’s Feeling of Safety*, 6: *Misconduct of Local Police Personnel* and 7: *Mutually Beneficial Police/Community Relationships*) can be considered contemporary CSSFs (indicators) of police organisational performance. Although the emergence of these CSSFs is foundational to the evolution of a strategic performance measurement model for Canadian policing, the emergence of CSSF 1: *Legitimacy of the Local Police Agency* and

⁴⁴⁸Bayley, “Measuring overall effectiveness or Police Force Show and Tell,” 51.

⁴⁴⁹Ibid.

CSSF 2: *Leadership and Management of the Local Police Agency*, which together accounted for 35.20% of the total variance of POPI, were, in particular, encouraging.

These two CSSFs are arguably not only new to the Canadian police performance measurement regime but they also feature in the literature as necessary factors to include when considering the performance of police agencies. For instance, as Sylvie Trosa explained, performance measurement itself can advance the legitimacy of public sector agencies. Citing the Declaration of Michel Rocard,⁴⁵⁰ she maintained “a state which is able to demonstrate its performance is ... more legitimate.”⁴⁵¹

The inclusion of CSSF 1 and CSSF 6: *Misconduct of Police Personnel* suggests a trend from traditional police performance indicators to performance measurement that includes an assessment of police conduct and fairness during their interactions with the public. That is, a trend toward the incorporation of an assessment of procedural justice in the determination of police organisational performance.

On the other hand, CSSF 3: *Enforcement by the Local Police Agency* and CSSF 5: *Crime and Social Disorder in the Community*, although considered intermediate-outcomes for the purpose of the study, tended to be traditional indicators of police performance. This raises the question: given the cross-section of stakeholders who participated in the study, why in the era of contemporary-policing and post public-sector reform with its increased focus on the outcome of policing would POPI include two factors that, according to the literature, are a) not outcome-focused and b) poor indicators of the outcome of policing activities?

One explanation might be that some, or all, of the respondent stakeholders were misinformed or had inadequate information about some of the issues with regard to what constitutes a well-functioning police agency. Regardless of their possibly uninformed

⁴⁵⁰Declaration of Michel Rocard, P.M., Recontres nationales du service Public, Journal Officiel, 1990.

⁴⁵¹S. Trosa, “Public Sector Reform Strategy,” in *Monitoring Performance in the Public Sector: Future Directions from International Experience*, eds. J. Mayne and E. Zapico-Goni (London, UK: Transaction Publishers, 1997), 119.

responses, it is their perception whether based on good information or not that shapes their view of their local police and, thus, affects their trust and confidence and, ultimately, their assessment of the legitimacy of their police agency.

While statistically significant differences were not identified between the opinions of the four sub-groups of stakeholders with regard to the factors of POPI, another possible explanation for inclusion of CSSFs 3 and 5 is that Statistics Canada continues to mandate police agencies to submit traditional output data for analysis and publication.⁴⁵² Arguably, the result might be that policies and practices of Statistics Canada are perpetuating the notion that, contrary to the literature, these are relevant and valuable data with regard to the assessment of police agencies. If that is the reason, it might be necessary to educate all stakeholders of policing that output data, such as the number of arrests made or charges laid as well as the rates of reported crime and social disorder, are not good indicators of community safety. It might also require a change of policy and practice by Statistics Canada as well as police governance authorities to ensure the focus of police performance is moved from output-based to strategic and outcome-based by generating, collecting and analysing data that are congruent with outcome performance and address public expectations such as those revealed in POPI. Nevertheless, changing long-standing attitudes and practices will likely be a challenge. Further study is necessary to better understand this.

The literature is clear that the failure of many police organisations to complete the transition to the contemporary-policing model has been the failure to make the shift to organisational structures and systems consistent with the contemporary (community) policing model. POPI, because it was constructed based on direct input from policing stakeholders and has an overall outcome focus, is arguably congruent with the contemporary public sector and, thus, contemporary-policing. It is not only well

⁴⁵²In, for example, Dauvergne and Turner, *Police-reported crime statistics in Canada, 2009*.

positioned to facilitate the evolution of Canadian policing but it is also positioned to be the genesis of a new approach to the strategic leadership and management of police agencies as well as a new approach to the accountability of police to their public.

Although the literature is clear that many performance measurement and management models have been proposed over time and that some have been rejected or have fallen into disuse as performance measurement and management has evolved, POPI is arguably a next, but important, step in the development of a contemporary strategic performance measurement and management model for Canadian policing. Considering that it was constructed by means of exploratory research using a non-probability sample, POPI, in its current state, could be considered a prototype – a proof of concept. Further work is required to fully operationalise POPI. For instance, although POPI could become operational as a measurement tool on a pilot basis by establishing the approximately two to three KPIs for each CSSF by additional research, replication of the present study using a random stratified sample would be a recommended next step. As Gorsuch stated, “factors become recognised factors upon replication and introduction into a theoretical framework.”⁴⁵³

It is important to note that POPI was constructed to provide a foundation for future research and refinement of a strategic performance management model that can meet stakeholder expectations in the contemporary environment and assist police agencies to meet the expectations of their various communities. Moreover, the findings of the present study, which was descriptive and exploratory for the purpose of providing a base for the advancement of a resolution to the complex challenges facing the development of a contemporary-policing organisational performance model, could be used to refine the variables of the questionnaire for such future research.

Whether POPI, or a future variation of it, will become the performance

⁴⁵³R. Gorsuch, *Factor Analysis*, (Toronto: W. B. Saunders and Company, 1974), 329.

measurement regime of choice will not only depend on the ever-evolving public management environment but also the political will of those responsible for policing to move beyond the current output-based measures and indicators of organisational performance. These current measures and indicators, as the literature makes clear, are not ideally transformational and might not address the expectations of policing stakeholders; POPI has the potential to contribute to the necessary changes.

7. BIBLIOGRAPHY

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8. APPENDICES

Appendix 1: Research Ethics Board Approval

DATE: September 30, 2010

TO: Terence G. Coleman
1209 Carleton Street
Moose Jaw, SK S6H 3A5

FROM: Dr. Bruce Plouffe
Chair, Research Ethics Board

Re: **The Measurement of the Organizational Performance of Canadian Police Organizations: The Identification and Application of Critical Strategic Success Factors (File #07S1011)**

Please be advised that the University of Regina Research Ethics Board has reviewed your proposal and found it to be:

1. APPROVED AS SUBMITTED. Only applicants with this designation have ethical approval to proceed with their research as described in their applications. For research lasting more than one year (Section 1F). **ETHICAL APPROVAL MUST BE RENEWED BY SUBMITTING A BRIEF STATUS REPORT EVERY TWELVE MONTHS.** Approval will be revoked unless a satisfactory status report is received. Any substantive changes in methodology or instrumentation must also be approved prior to their implementation.
2. ACCEPTABLE SUBJECT TO MINOR CHANGES AND PRECAUTIONS (SEE ATTACHED). Changes must be submitted to the REB and approved prior to beginning research. Please submit a supplementary memo addressing the concerns to the Chair of the REB.** Do not submit a new application. Once changes are deemed acceptable, ethical approval will be granted.
3. ACCEPTABLE SUBJECT TO CHANGES AND PRECAUTIONS (SEE ATTACHED). Changes must be submitted to the REB and approved prior to beginning research. Please submit a supplementary memo addressing the concerns to the Chair of the REB.** Do not submit a new application. Once changes are deemed acceptable, ethical approval will be granted.
4. UNACCEPTABLE AS SUBMITTED. The proposal requires substantial additions or redesign. Please contact the Chair of the REB for advice on how the project proposal might be revised.


Dr. Bruce Plouffe

cc: Dr. Ken Leyton-Brown - History

** supplementary memo should be forwarded to the Chair of the Research Ethics Board at the Office of Research Services (Research and Innovation Centre, Room 109) or by e-mail to research.ethics@uregina.ca

Appendix 2: Letter of Introduction for Survey Participants



DEPARTMENT OF JUSTICE STUDIES

Regina, Saskatchewan

Canada S4S 0A2

Phone: (306) 585-4779

Fax: (306) 585-4815

www.uregina.ca/arts/justice-studies/

**Re: The Measurement of the Organizational Performance of Canadian Police Organizations –
The Identification of Critical Strategic Success Factors**

As a retired police officer with nearly 40 years of service, I am now completing a Ph.D in Police Studies at the University of Regina. To satisfy the requirements of the program, I am conducting a research project to find out how to improve the ability to measure the organizational performance of police agencies. I anticipate that what I learn will help the understanding of how better to lead and manage the organizational performance of police agencies. In order to be successful, I am seeking your assistance.

Following is a link to a short 21 question online survey at https://www.surveymonkey.com/s/Identifying_CSSFs that asks about which factors you consider imperative for the determination of how well a police organization is performing. Your completion of the survey, which is voluntary, implies your consent to participate in the study. However, if you should wish to do so, you are free to stop participating at any time without penalty.

It is important to the success of the study that persons with diverse perspectives provide input into my project by completing the survey. I, therefore, am looking for as many responses from within your organisation as possible. For that reason, please feel free to forward the survey link to others who might also be interested in contributing to this important study.

Information provided will only be used for academic purposes to complete my thesis, which is a requirement for the Ph.D program in Police Studies. Although I anticipate conclusions reached will be useful to police leaders and police governance authorities when they reconsider and possibly redesign their performance measurement and management strategies, my research is conducted independently of any police organization.

Information received will be kept strictly confidential. Anonymity will also be assured because the research findings will be presented as an aggregate analysis. It is also

important for you to know that "Survey Monkey," a web-survey company that is located in the USA, is the host of this on-line research. This company is subject to U.S. laws; in particular, the US Patriot Act that allows authorities access to the records of internet service providers. Survey Monkey's servers record incoming IP addresses - including that of the computer that you use to access the survey. However, no connection is made between your data and your computer's IP address. If you choose to participate in the survey, you understand that your responses to the survey questions will be stored and accessible in the USA.

This project was approved by the Research Ethics Board, University of Regina. If research subjects have any questions or concerns about their rights or treatment as subjects, they may contact the Chair of the Research Ethics Board at 585-4775 or by e-mail: research.ethics@uregina.ca.

My supervisor, Ken Leyton-Brown, Ph.D., Faculty of Arts, University of Regina, can be contacted at (306) 585-4211 or at Ken.Leyton-Brown@uregina.ca if you have any questions regarding the procedures or goals of the study. I can also be contacted at TColeman@SaskTel.Net in the event you have any questions.

I thank you in advance for your assistance. A copy of the completed research paper will be available by sending me an e-mail request at: TColeman@SaskTel.Net.



Terry G. Coleman
PhD candidate
University of Regina
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Appendix 3: Online Survey Questionnaire

**The Identification of Critical Strategic Success Factors for the Measurement of
Police Performance**

The Identification of Critical Strategic Success Factors for the Measurement

How do you tell if your police agency is doing a good job?

Numerous intersecting factors contribute to the organizational performance of police agencies.

The overall purpose of the Study is to identify those factors which are the most important - the Critical Strategic Success Factors [CSSFs] - to the measurement of police performance. The findings will enable me to construct an index/matrix of the CSSFs.

By participating in this Survey, you will be telling me which factors that YOU consider to be the most important, the CSSFs, when determining how well a police organization is performing.

In other words, on what criteria should your police be evaluated?

All data/information received in response to this Survey will be recorded, analyzed and reported on an aggregate basis such that the identity of individual respondents will remain anonymous and confidential.

I anticipate the findings of the Study will be useful to police leaders, police governance authorities and the public.

The Survey, consisting of 21 questions, should take approximately 25 minutes to complete.

Who should complete this Survey?

The Survey is intended to be completed by:

Canadian police leaders, members of Canadian police governance and oversight authorities (e.g., police boards, police commissions and police management boards), senior public servants of municipal and provincial governments and elected persons of Canadian municipal and provincial governments.

It is particularly important to me that as many persons as possible provide input into my Study by way of this Survey.

Therefore, I am not looking for just one response on behalf of, for example, a police agency or a police board/commission but responses from multiple members of those and other organizations.

Please feel free to forward the link to this Survey

https://www.surveymonkey.com/s/Identifying_CSSFs

to others who might be interested in contributing to this important Study.

Completion of the Survey, which is voluntary, implies your consent to participate in the Study. You are free to stop participating at any time without penalty if you should wish to do so.

Your assistance and cooperation is sincerely appreciated.

Ethics Board Approval

The Study has been approved by the Research Ethics Board, University of Regina.

If you have any questions or concerns about your rights or treatment as a subject of the Study, please contact the Chair

The Identification of Critical Strategic Success Factors for the Measurement

of the Research Ethics Board at:

Phone: 306-585-4775 or

by email at:

research.ethics@uregina.ca

Guidelines for Completion of the Survey

As previously mentioned, there are numerous factors that affect the overall performance of a police organization.

That is why I need your help to find out what you believe to be the most important factors (the Critical Strategic Success Factors) that should be included in the overall measurement of police performance.

It will, therefore, be most helpful to me if you discriminate between those factors which you view as being critical (very important) to include and those factors which are not so critical to include.

When you answer each question, please do so while thinking of your LOCAL police organization. That is, the police agency that directly serves your town, city, community or neighborhood. This might be your own police service or it might be a detachment of your provincial police (e.g., the Ontario Provincial Police, the RCMP, the Royal Newfoundland Constabulary or the Surete du Quebec).

PLEASE NOTE: The Survey is not about how well your police are actually performing today but about what you think should be included in measurements for the future.

Guidelines (continued)

Most of the questions in this Survey ask you to rate on a scale of 1-7 [where 1 is 'not at all important' and 7 is 'very important'] the relative importance of each factor on the lists provided.

You will also be given the opportunity to provide additional factors you consider to be very important (critical) to include.

This will help me determine which factors should be included in the overall measurement of performance and which should be excluded based on how you rate each factor relative to the others.

A red * at the start of a Question indicates a response is required before you move on to the next Question.

I acknowledge the numerous demands on your time; however, if you are able to please complete this Survey by 31 December 2010, I would be very grateful.

Furthermore, to assist you the Survey has been constructed so that you can partially complete the Survey, exit and then at a later time return using the same computer and resume where you left off.

My thesis supervisor, Ken Leyton-Brown, Ph.D., Faculty of Arts, University of Regina, can be contacted at (306) 585-4211 or at Ken.Leyton-Brown@uregina.ca if you have any questions regarding the procedures and goals of the Study.

As the researcher, I can also be contacted at TColeman@SaskTel.Net if you have any questions.

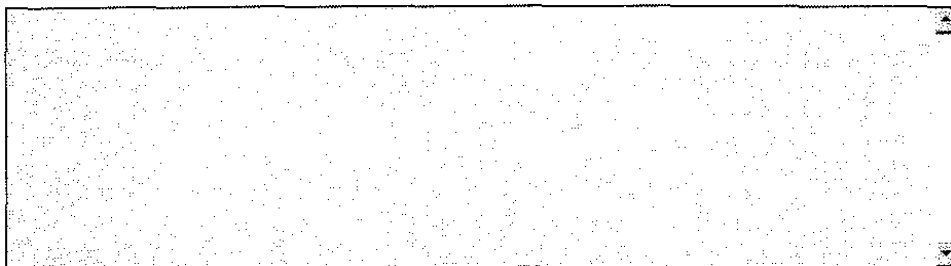
Terry G. Coleman

**The Identification of Critical Strategic Success Factors for the Measurement
The end-result [the outcome] of policing?**

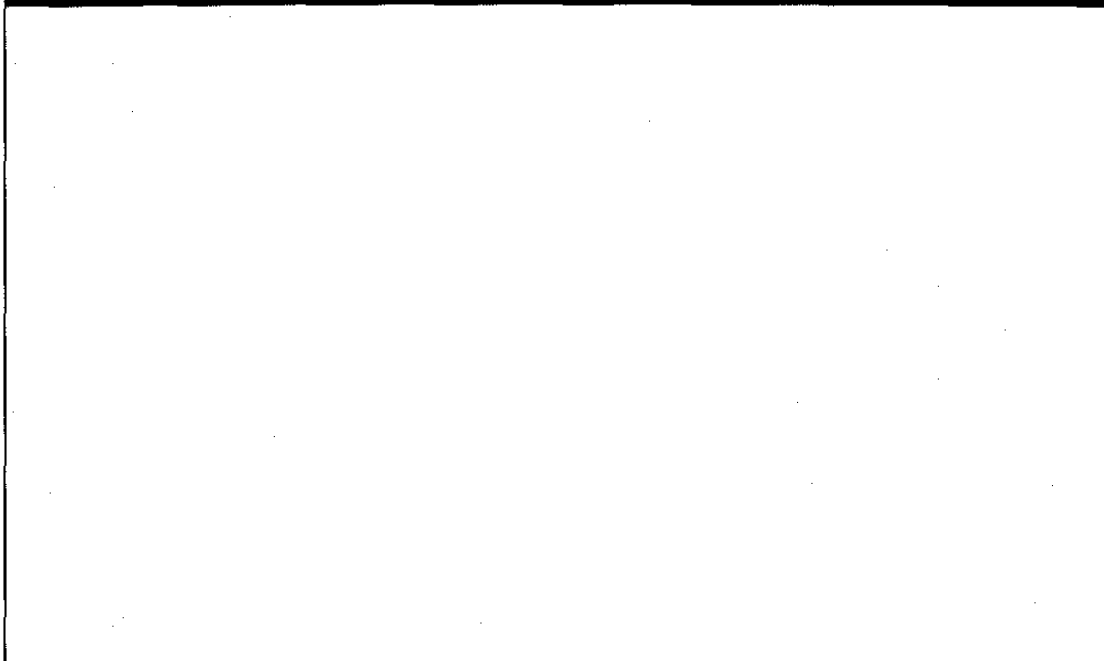
***1. Policing is complex and involves doing many different things in order to satisfy the needs and expectations of the public.**

Please briefly describe below what you consider to be the desired ultimate goal of all policing activities. That is, what is the intended end-result of all policing activities.

While your response can be brief, you will find ample room for a short paragraph if required.



Which is more important from your perspective?



The Identification of Critical Strategic Success Factors for the Measurement

***2. I am looking for your opinion about the RELATIVE importance of each of the following five statements when you consider the performance of your police agency.**

Although arguably all are important, based on your perspective please rank each option in order of importance where [1] is the 'least important' of the five options to include as a Critical Strategic Success Factor and [5] is the 'most important' of the five options to include as a Critical Strategic Success Factor.

NOTE: For this question, you will only be able to select one response in each column.

A response is also required for each row.

	[1] is the least important of the five options to include as a Critical Strategic Success Factor	[2]	[3]	[4]	[5] is the most important of the five options to include as a Critical Strategic Success Factor
* PUBLIC TRUST - the public must trust that their local police will perform their duties with honesty and integrity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* PUBLIC CONFIDENCE - the public must have confidence in their local police	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* PROFESSIONALISM - the police must be role models for professional conduct in all they do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* PUBLIC SAFETY - the public must feel safe and be safe in their communities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* CO - OPERATION & COLLABORATION - police, in co-operation and collaboration with the community must develop strategies to: educate, problem-solve, enforce laws, and form partnerships with the community to reduce crime and social disorder	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Crime Prevention - Reduction of Victimization

The Identification of Critical Strategic Success Factors for the Measurement

Given that crime and social disorder are parts of larger social issues that go beyond a police organization, it has been argued that police agencies should pro-actively collaborate with other agencies and the community to address root causes in order to help prevent crime and social disorder and thus reduce the likelihood of someone becoming a victim.

This is often called crime prevention or the reduction of victimization.

In some parts of the Survey, including the next Question, you will be asked to comment on social disorder.

For the purpose of this Study, social disorder (sometimes referred to as public disorder) includes such situations as public drunkenness, causing a disturbance, graffiti, vandalism, noisy parties, rowdiness, people loitering in public places, noisy vehicles, abandoned vehicles, urinating in public, fighting, illegal dumping, traffic issues, abandoned buildings, loitering youth, garbage, public drug use and broken street lights.

The Identification of Critical Strategic Success Factors for the Measurement

***3. Following are five potential factors with regard to improving community safety and awareness.**

Please rank each factor on a scale of [1] to [7] [where 1 is 'not at all important' to include as a Critical Strategic Success Factor and 7 is 'very important' to include as a Critical Strategic Success Factor].

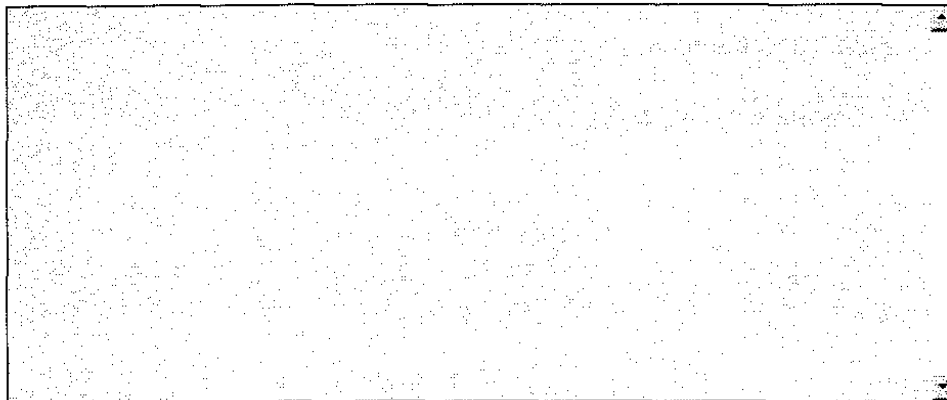
A response is required for each row.

	[1] not at all important to include	[2]	[3]	[4]	[5]	[6]	[7] very important to include	No Opinion
* The extent to which police are proactive & promote community safety is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which police have reduced the fear of social disorder is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which police have reduced the amount of social disorder is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the community feels police actively engage the community and/or community agencies to seek solutions to issues/problems affecting the community is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the community feels police have effective communications and information sharing systems to keep the community informed is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

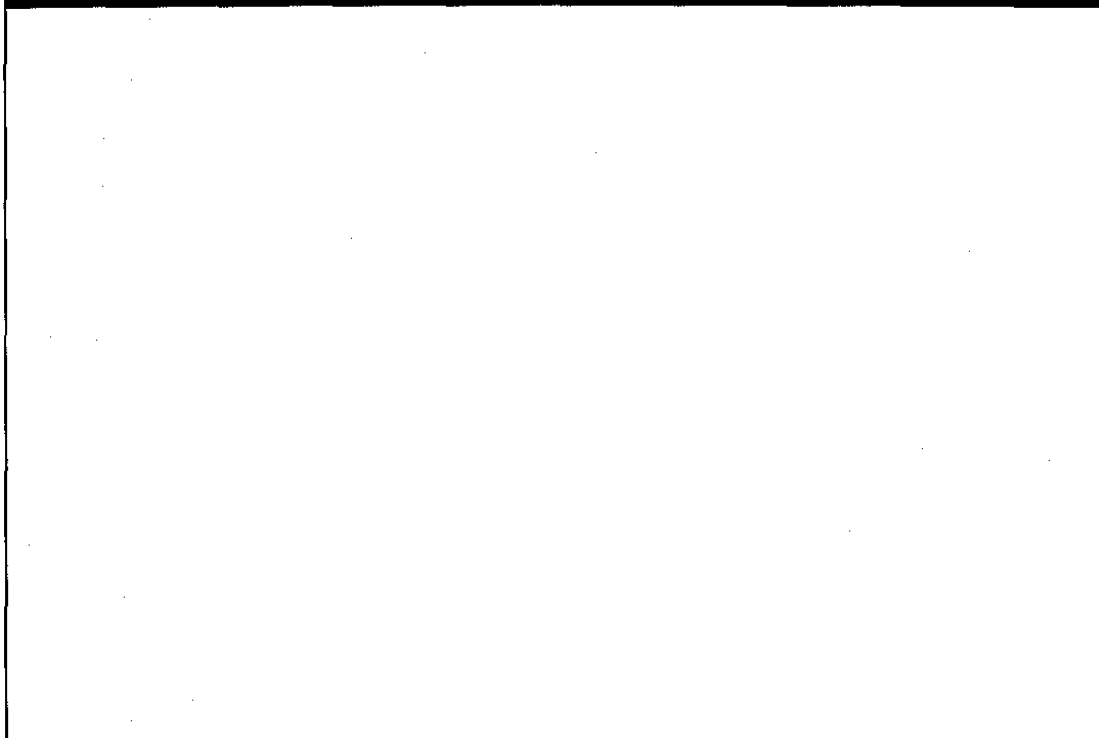
The Identification of Critical Strategic Success Factors for the Measurement

4. Further to Question 3, if you have additional factors you consider to be 'very important' to include as a Critical Strategic Success Factor, please add up to TWO.

While your response can be brief, you will find ample room below for up to a short paragraph if required.



Community Safety



The Identification of Critical Strategic Success Factors for the Measurement

***5. This Question asks you to weigh seven possible factors related to community safety when considering overall police performance.**

Please rank each option on a scale of [1] to [7] [where 1 is 'not at all important' to include as a Critical Strategic Success Factor and 7 is 'very important' to include as a Critical Strategic Success Factor].

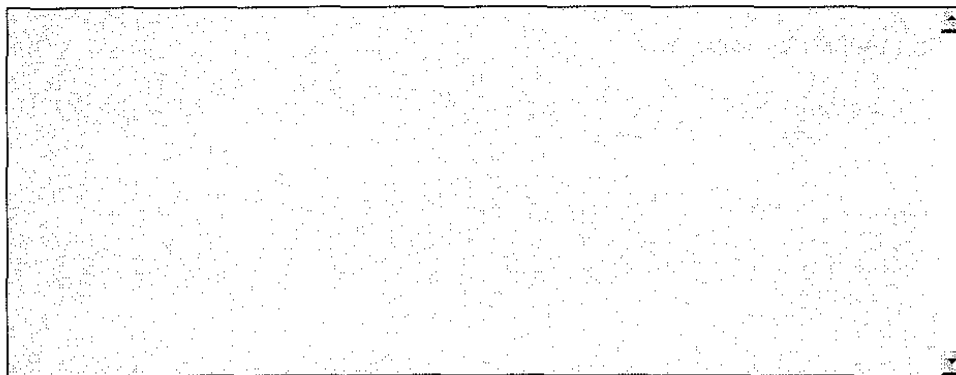
A response is required for each row.

	[1] not at all important to include	[2]	[3]	[4]	[5]	[6]	[7] very important to include	No Opinion
* The extent to which police have reduced the amount of crime is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which police have reduced the fear of crime is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the community IS safe is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which people in the community FEEL safe is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which police have reduced the amount of social disorder is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the community perceives that the visibility and accessibility of police provides reassurance with respect to safety concerns is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which police have reduced the fear of social disorder is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Identification of Critical Strategic Success Factors for the Measurement

6. Further to Question 5, if you have additional factors you consider to be 'very important' to include as a Critical Strategic Success Factor, please add up to TWO.

While your response can be brief, you will find ample room below for up to a short paragraph if required.

**Quality & Valued Service**

The primary interface of a police organization's activities with the community (i.e., the delivery of services) is via its personnel including its police officers.

In Question 7 & 8, I would like to find out from you which aspects of service delivery you consider to be more important than others when determining the overall performance of your police.

NOTE: The term police personnel includes, but is not limited to, police officers.

The Identification of Critical Strategic Success Factors for the Measurement

***7. Following are nine statements with regard to police service delivery that you might consider when assessing the overall performance of police.**

Please rank each option on a scale of [1] to [7] [where 1 is 'not at all important' to include as a Critical Strategic Success Factor and 7 is 'very important' to include as a Critical Strategic Success Factor].

A response is required for each row.

	[1] not at all important to include	[2]	[3]	[4]	[5]	[6]	[7] very important to include	No Opinion
* The extent to which police personnel are sensitive to community needs is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which police officers are approachable is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which police personnel are polite when interacting with the community is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which police personnel in general communicate well with the community is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which police respond immediately/promptly to an EMERGENCY call-for-service such as an assault in progress, a break and enter or theft in progress, or a situation where someone is currently in personal danger or is a danger to others is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which police respond immediately/promptly to a NON-EMERGENCY call-for-service such as a theft, vandalism, or a break and enter all of which occurred some time ago is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the community is satisfied with	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Identification of Critical Strategic Success Factors for the Measurement

the service provided by police personnel is:

* The extent to which police personnel demonstrate honesty & integrity when interacting with the community is:

* The extent to which police are fair when interacting with the community:

8. Further to Question 7, if you have additional factors you consider to be 'very important' to include as a Critical Strategic Success Factor, please add up to TWO.

While your response can be brief, you will find ample room below for up to the equivalent of a short paragraph if required.

The Amount of Crime (the Crime Rate) and Social Disorder

Thank you, you are over 50% completed.

For the purpose of this Study:

** The VIOLENT crime rate for a community includes offenses such as assaults, armed robbery, sexual assault, domestic assault, attempted murder and murder.

** The NON-VIOLENT crime rate for a community includes offenses such as theft, fraud, vandalism, break and enters into residential or commercial properties and offenses related to possession and trafficking of illegal drugs.

** The TOTAL crime rate for a community, includes ALL violent crime offenses plus ALL non-violent offenses plus the many other criminal offenses processed by police such as, but not limited to, breaches of probation and creating a public disturbance.

The Identification of Critical Strategic Success Factors for the Measurement

The three categories of crime rates above relate to offenses under the Criminal Code of Canada as well as other federal statutes such as the Controlled Drug and Substances Act [CDSA].

Note: Because the above crime rates exclude driving related offenses under the Criminal Code, they will be addressed separately in Question 9.

***9. In this Question, I am looking for your opinion of the relative importance of the amount of crime [the crime rate] as well as the amount of social disorder in your community as indications of how well your police are performing.**

Please indicate the extent to which you agree with each of the following statements on a scale of [1] to [7] [where 1 is you 'strongly disagree' and 7 is you 'strongly agree'].

A response is required for each row.

	[1] strongly disagree	[2]	[3]	[4]	[5]	[6]	[7] strongly agree
* The TOTAL crime rate is very important to include as a Critical Strategic Success Factor in the assessment of police performance:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The CRIMINAL CODE - TRAFFIC OFFENCE rate for driving offenses [such as incidents of impaired driving, driving over 0.08, impaired driving causing death, dangerous driving, and dangerous driving causing death] is very important to include as a Critical Strategic Success Factor in the assessment of police performance:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The VIOLENT crime rate is very important to include as a Critical Strategic Success Factor in the assessment of police performance:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The NON-VIOLENT crime rate is very important to include as a Critical Strategic Success Factor in the assessment of police performance:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent of social disorder is very important to include as a Critical Strategic Success Factor in the assessment of police performance:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Identification of Critical Strategic Success Factors for the Measurement

Success Factor in the assessment of police performance:

* The number of serious injury or fatal traffic accidents is very important to include as a Critical Strategic Success Factor in the assessment of police performance:

* The number of traffic accidents [NOT including serious injury or fatal accidents] is very important to include as a Critical Strategic Success Factor in the assessment of police performance:

10. Further to Question 9, if you have additional factors you consider to be 'very important' to include as a Critical Strategic Success Factor, please add up to TWO.

While your response can be brief, you will find ample room below for up to the equivalent of a short paragraph if required.

The Conduct of Police Personnel

The primary interface of a police organization's activities with the community is via its personnel.

For the purpose of this Study, police personnel includes, but is not limited to, police officers.

The Identification of Critical Strategic Success Factors for the Measurement

***11. In the this Question, I am looking for your opinion of the relative importance of several aspects of the conduct of police personnel when you form an opinion about how your police agency is performing overall.**

Please rank each of the following eight options on a scale of [1] to [7] [where 1 'is not at all important' to include as a Critical Strategic Success Factor and 7 is 'very important' to include as a Critical Strategic Success Factor].

In this Study, 'substantiated' means that after investigation of a complaint about misconduct there is sufficient evidence to lay a criminal charge and/or proceed with disciplinary action.

A response is required for each row.

	[1] not at all important to include	[2]	[3]	[4]	[5]	[6]	[7] very important to include	No Opinion
* The extent to which the community has confidence in their police is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the community trusts their police is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which police officers are perceived to be fair when interacting with the community is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The number of formal public complaints made about police personnel conduct is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The number of formal public complaints about police personnel conduct which have been investigated and substantiated is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The number of reported incidents of inappropriate use of force by police officers is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The number of incidents of inappropriate use of force by police officers that have been substantiated by	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Identification of Critical Strategic Success Factors for the Measurement

Investigation is:

* The extent to which
police personnel are
ethical when interacting
with the community is:



12. Further to Question 11, if you have additional factors you consider to be 'very important' to include as a Critical Strategic Success Factor, please add up to TWO.

While your response can be brief, you will find ample room below for up to a short paragraph if required.

The Solving of Crime & Social Disorder

I am looking for your opinion about the importance of the conclusion (i.e., the solving) of police investigations of crime and social disorder by means of an arrest(s)/charge(s), referral to alternative measures or other criteria that satisfies the parameters of the Canadian Centre for Justice Statistics [CCJS] in the assessment of police performance.

In other words, when considering how well a police agency is performing, what importance do you assign to how well police solve crime and social disorder?

For the purpose of the next two Questions, the solving of crime and social disorder includes the making of arrests, the laying of charges or the use of alternate dispositions such as pre-charge diversion.

The Identification of Critical Strategic Success Factors for the Measurement

***13. This Question asks you about the relative value you place on how well police solve crime and social disorder.**

Please rank each of the following on a scale of [1] to [7] [where 1 is 'not at all important' to include as a Critical Strategic Success Factor and 7 is 'very important' to include as a Critical Strategic Success Factor].

A response is required for each row.

	[1] not at all important to include	[2]	[3]	[4]	[5]	[6]	[7] very important to include	No Opinion
* When determining the performance of police, the number of arrests, charges or alternate dispositions with regard to NON-VIOLENT crime (such as theft, fraud, vandalism, break and enters into residential or commercial properties and offenses related to possession and trafficking of illegal drugs) is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* When determining the performance of police, the number of arrests, charges or alternate dispositions with regard to social disorder is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* When determining the performance of police, the number of arrests, charges or alternate dispositions with regard to VIOLENT crime (such as assaults, armed robbery, sexual assault, domestic violence, attempted murder and murder) is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* When determining the performance of police, the number of arrests, charges or alternate dispositions with regard to ALL criminal offenses is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* When determining the performance of police, the	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Identification of Critical Strategic Success Factors for the Measurement

number of arrests, charges or alternate dispositions with regard to driving offenses under the Criminal Code of Canada [this includes impaired driving, driving over .08, impaired driving causing death, dangerous driving and dangerous driving causing death] is:

* When determining the performance of police, the number of arrests, charges or alternate dispositions with regard to driving/vehicle safety offenses under provincial legislation such as the Traffic Safety Act or equivalents [this includes speeding, failing to stop for a red traffic light or a stop sign, safety checks of vehicles, careless driving] is:

14. Further to Question 13, if you have additional factors you consider to be 'very important' to include as a Critical Strategic Success Factor, please add up to TWO.

While your response can be brief, you will find ample room below for up to a short paragraph if required.

The Identification of Critical Strategic Success Factors for the Measurement

***15. When assessing the performance of your police, which of the following is the most important:**

- That police solve the crime or the situation reported to them; OR
- That police personnel treat the people they encounter fairly.

Leadership and Management

The way a police agency is led, managed, structured, resourced & deployed can arguably affect the strategies, programs and activities that in turn might affect the performance of a police agency.

The Identification of Critical Strategic Success Factors for the Measurement

***16. In terms of how police agencies are led and managed, please rank each of the following factors on a scale of [1] to [7] [where 1 is 'not at all important' to include as a Critical Strategic Success Factor and 7 is 'very important' to include as a Critical Strategic Success Factor].**

A response is required for each row.

	[1] not at all important to include	[2]	[3]	[4]	[5]	[6]	[7] very important to include	No Opinion
* The extent to which the police agency responsibly manages allocated resources (such as funding and human resources) is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the police agency is responsive to changes in the social and justice environments is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The number of 'sick' days used on an annual basis by employees of the police agency is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which funding is invested on an annual basis for direct employee development [skill training and/or education] as a percentage of total payroll is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The annual operating cost of the police agency per capita of community population is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the police agency uses a robust employee performance appraisal/development program is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the police agency uses robust systems to ensure continuous evaluation, continuous improvement and change is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent, overall, to which police personnel are satisfied in their workplace is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Identification of Critical Strategic Success Factors for the Measurement

* The extent to which the police agency uses merit-based hiring and promotion practices is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which staffing of the police agency is representative of the community is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the police agency has effective internal communications and information sharing systems is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the police agency works with other police agencies when necessary is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the police agency works collaboratively with community agencies when necessary is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The extent to which the police agency is client/customer focused is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. Further to Question 16, if you have additional factors you consider to be 'very important' to include as a Critical Strategic Success Factor, please add up to TWO.

While your response can be brief, you will find ample room below for up to a short paragraph if required.

What are the Key Components of a Performance Index/Matrix?

The Identification of Critical Strategic Success Factors for the Measurement

As explained earlier, the purpose of the Survey is to identify the Critical Strategic Success Factors (CSSFs) that can form an index/matrix of performance.

Question 18 seeks your assistance in determining the relative importance of ten potential components of such an index/matrix.

*** 18. Following are ten potential components of a police performance index/matrix.**

Based on your perspective, please rank each option in order of importance on a scale where [1] is the 'least important' of the ten options to include as a Critical Strategic Success Factor and [10] is the 'most important' of the ten options to include as a Critical Strategic Success Factor.

NOTE: For this question, you will only be able to select one response in each column.

A response is also required for each row.

	[1] the least important of the ten options	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10] the most important of the ten options
* The reduction of the fear of crime and the fear of social disorder in the community is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* Community safety is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The community perception of the value and quality of police service delivery is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The amount of crime [the crime rate] is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The amount of social disorder is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The reduction of victimization [prevention of crime and social disorder] is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The conduct of police personnel is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The solving of crime is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The solving of social disorder is:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
* The leadership and	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The Identification of Critical Strategic Success Factors for the Measurement

management of the police
agency is:

Public Trust and Confidence

You are almost finished!

The following two Questions ask for your opinion about what does or does not engender public trust of, and confidence in, police organisations.

***19. Please briefly describe in Box 1 what it is that gives you, or would give you, confidence and trust in your police.**

If you don't know or do not have an opinion, please indicate accordingly in Box 2.

PLEASE NOTE: FOR THIS QUESTION, A RESPONSE IS REQUIRED IN AT LEAST ONE OF THE TWO TEXT BOXES BEFORE YOU CAN PROCEED.

Box 1:

[You have
space for
up to 100
characters]

Box 2:

Don't
Know/No
Opinion?
[Please
indicate in
the Box]

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***20. Please briefly describe in Box 1 what it is that reduces, or would reduce, your confidence and trust in your police.**

If you don't know or do not have an opinion, please indicate accordingly in Box 2.

PLEASE NOTE: FOR THIS QUESTION, A RESPONSE IS REQUIRED IN AT LEAST ONE OF THE TWO TEXT BOXES BEFORE YOU CAN PROCEED.

Box 1:

[You have space for up to 100 characters]

Box 2:

Don't Know/No Opinion?
[Please indicate in the Box]

What are the two MOST important factors?

As mentioned previously, there are too many factors that affect overall police performance to include them all in the final index/matrix that I am working to construct.

Only the most important factors (i.e., the Critical Strategic Success Factors [CSSFs]) can be included.

The final Question asks for your opinion about what, from all of the potential factors, whether included already in this Questionnaire or not, are the two Critical Strategic Success Factors that MUST be included in a measurement index/matrix of the organizational performance of your police.

The Identification of Critical Strategic Success Factors for the Measurement

***21. In your opinion, what are the TWO Critical Strategic Success Factors [CSSFs], whether already included in this Questionnaire or not, that MUST be included when assessing the performance of your police organization?**

Respondent Profile [Optional]

While completion of all or parts of this Section is optional, the following information would assist me to identify trends, differences, or similarities, with respect to the information gathered during this Survey.

22. From the following options, please select that which best describes you

- | | | |
|--|--|--|
| <input type="radio"/> Elected person - municipal government | <input type="radio"/> Senior public servant (other than Deputy Minister) - provincial government | <input type="radio"/> Chair-Police Board/Commission (or equivalent) |
| <input type="radio"/> Elected person - provincial government | <input type="radio"/> Chief of Police (or equivalent) | <input type="radio"/> Member-Police Board/Commission (or equivalent) |
| <input type="radio"/> City Manager (or equivalent) | <input type="radio"/> Deputy Chief of Police (or equivalent) | <input type="radio"/> Other |
| <input type="radio"/> Senior public servant (other than City Manager) - municipal government | <input type="radio"/> Police Officer (of ranks from Inspector up to but not including Deputy Chief or equivalents) | |
| <input type="radio"/> Deputy Minister (or equivalent) | <input type="radio"/> Police Officer (of ranks from Constable up to but not including Inspector or equivalents) | |

If Other (please specify)

The Identification of Critical Strategic Success Factors for the Measurement**23. Your province of residence**

- | | |
|--|---|
| <input type="radio"/> British Columbia | <input type="radio"/> Nova Scotia |
| <input type="radio"/> Alberta | <input type="radio"/> Prince Edward Island |
| <input type="radio"/> Saskatchewan | <input type="radio"/> Newfoundland & Labrador |
| <input type="radio"/> Manitoba | <input type="radio"/> Yukon |
| <input type="radio"/> Ontario | <input type="radio"/> North West Territories |
| <input type="radio"/> Québec | <input type="radio"/> Nunavut |
| <input type="radio"/> New Brunswick | <input type="radio"/> Other |

If Other (please specify)

Final Report

Your assistance is very much appreciated.

I am confident the results of this Study will be of value to you. If you would like information about this research and/or a copy of the completed report please contact me:

by phone - (306) 692-0095

or

by e-mail - TColeman@SaskTel.Net