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NOTES ON THE CONTRIBUTORS

CHIEF SUPERINTENDENT KIERAN MCGANN has worked in all three Cork North Divisions as Inspector and District Officer. This included two years as Detective Inspector and three and a half years as District Officer in Anglesea Street. He was also based in Kilmainham for two years as Inspector. He is currently based at the Garda College as Director of Training and Development.

He holds two primary Degrees, a BA from UCC and a BA in Police Management. He has recently obtained a Masters in Business Administration (MBA) from UCC.

SERGEANT HELEN COSTELLO a native of Ennis, Co Clare, joined An Garda Síochána in 1995. On attestation she was transferred to Shankill Garda Station. In 1999 she transferred to the IT Section, where she was promoted to Sergeant in 2003 and is now working in Research and Development.

Her qualifications include a M.Sc. Information Technology (2004), accredited to the National University of Ireland, Galway in conjunction with the Irish Management Institute. As part of her Masters she completed a thesis on managing the deployment of Biometric systems. Prior to joining An Garda Síochána she obtained and a BSc Computer Science and Mathematics (1994) accredited to the National University of Ireland, Galway.

SUPERINTENDENT DAVID TUTHILL is a native of Ballyfermot, Dublin. He joined An Garda Síochána in 1977 and was appointed to the rank of Superintendent in December 2002. He is currently in charge of Telecommunications Operations at Garda Headquarters and has previously served in the IT Section, Crime Branch and the Laois/Offaly Division. He is the holder of a BA Degree in Public Management (IPA, 2001), an MA Degree in Criminal Justice Management (UCD, 2004), a Diploma in Applied Project Management (UCC, 2005). He is a member of the Institute of Project Management of Ireland and is a Certified Project Manager under the International Project Management Association's 4-level certification system.

INSPECTOR JERRY BARRETT is attached to Internal Affairs, Human Resource Management. He joined An Garda Síochána in 1984 and has served in Irishtown, Garda College, In-service training, Harcourt Square, Whitehall and Santry. He holds a BA(Hons) from the IPA and a Msc(Econ) in Policy Studies from Trinity College.

An Application of the Balanced Scorecard to Road Safety Strategy in An Garda Síochána.

Chief Superintendent Kieran McGann

Chief Superintendent Kieran McGann

Introduction

There is concerted effort by Governments worldwide to inject strategic management thinking and practice into public bodies. This was the basis for the Government's Strategic Management Initiative (SMI) in the Irish Public Sector. The logic of the current thinking is that public bodies should take and learn from what is seen as best practice in the private sector. This paper examines how the concept and underlying processes associated with the Balanced Scorecard, a management concept popular within the private sector, may be utilised in An Garda Síochána to support the strategic management processes in the area of road traffic policing.

Control and Performance in Service Organisations.

An Garda Síochána is a public service and non commercial organisation with a clearly stated mission – *'to achieve the highest attainable level of Personal Protection, Community Commitment and State Security'.* The organisation provides a 24 hour service to the public maintaining state security, peace, public order, road safety and reducing casualties on our roads. However, it is difficult to satisfy all customers and maintain a balanced performance in the face of growing demands from an ever demanding public.

"The public sector has generally lagged behind the private sector in developing measures of performance that aid evaluation and accountability of their organisations. Given the nature of police organisations and the means available to them, the few measures of performance that were traditionally considered appropriate are now considered too narrow." (Lernihan, M., 2001)

Government policies, a questioning public, protest groups and tightened budgets necessitate more accountability from An Garda Síochána, which has recognised that the traditional measures of performance in the organisation are now obsolete insofar as modern organisations are now measured. The Garda organisation is concerned with the implications of these challenges and a more comprehensive measure of performance is required.

Market signals to the Garda organisation come in several forms, the Public Attitude Survey on an annual basis provides clear indications vis-à-vis public perception of Garda performance. Other forms are more subtle, critical and sometimes infrequent via media, public/private commentary and the complaints process. The Garda organisation is more complex because of the many roles and tasks it performs and needs a performance management ethic with a balanced approach.

Measuring Traffic Performance in An Garda Síochána utilising the Balanced Scorecard.

The outcome of the Garda strategy on road safety is not dependant on Garda activity in isolation. The mobilisation of various other agencies and public bodies is necessary and support from various Government Departments to ensure the motivation of parents in terms of their parental responsibilities is vital. Accordingly, it can often be difficult to clarify an effective approach and performance measurement system to accomplish the organisation's contributions to road safety and thereby reduce casualties on the road.

A study carried out in Toronto (Redelmeier, D.A., 2003) has determined that the strict enforcement of traffic laws reduces the frequency of fatal crashes in countries with heavy volumes of traffic. Professor Redelmeier stated that ***"inconsistent enforcement, therefore, may contribute to thousands of deaths each year worldwide".*** Rigorous enforcement of the law will change driver's attitudes but it may have an adverse effect on the public perception of policing if deemed too heavy handed.

Consequently, it is important to maintain a balance in implementing Garda strategy. A successful Balanced Scorecard program starts with the recognition that it is not a "metrics" project, but is a "change" project. It is recommended that the initial focus should be on mobilisation and the creation of momentum to get the process launched. The focus then shifts to governance with gradual transition to a new performance model. The final stage emphasises a strategic management system that institutionalises new cultural values and structures into a system for managing road safety issues.

The Balanced Scorecard (Kaplan & Norton, 1996) provides a framework to look at strategy from four different perspectives.

1. **Financial.** The strategy for growth, profitability and risk viewed from the perspective of the stakeholder. This aspect will be examined later in so far as the public sector is concerned.
2. **Customer.** The strategy for creating value and differentiation from the perspective of the customer.
3. **Internal business processes.** The strategic priorities for various business processes, which create customer and stakeholder satisfaction.
4. **Learning and growth.** The priorities to create a climate that supports organisational change, innovation and growth.

Management in An Garda Síochána must continue its research and development work covering all aspects of performance management. The framework as set out above should enable the organisation to:-

- examine strategy and measure how value is generated,
- learn how customers are served,

- establish best practice in internal processes and
- provide a climate of learning and growth to support the organisation.

Almost immediately after it was initiated, the Balanced Scorecard concept of performance management gained favour with organisations that sought a better-rounded, forward-looking approach to guiding their activities. The Balanced Scorecard approach reduces the danger of over dependence on "lagging" financial results by ensuring that companies take regular measurements of their customer base, their internal business processes and the levels of internal learning and growth as strategic objectives are pursued.

Kaplan and Norton highlight the benefits of their model as follows: *'the balanced scorecard retains traditional financial measures. But financial measures tell the story of past events, an adequate story for industrial age companies for which investments in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation'.*

Once an organisation has established its vision, aims and objectives, it then identifies the required actions or initiatives and establishes for each action key inter-related ratios under the four perspectives. It then develops metrics, collects data and analyses it, relative to each of these perspectives:

A SWOT Analysis of current Road Traffic Enforcement and Management Issues.

While the Garda organisation has several operational enforcement initiatives and interfaces with organisations on a partnership basis, the challenge of effective traffic policing still remains a key issue. A SWOT analysis of the organisation's strengths, weaknesses, opportunities and threats is a good base for problem solving this issue and thereafter, migrating this analysis into a balanced scorecard format suggests achievable performance results.

The number of road traffic related fatalities in Ireland remains high at over 375 per year and our fatality rate is approximately twice the rate of our nearest neighbour, Great Britain (Wegman, 2002). Road traffic related injuries are similarly high compared to the United Kingdom and many of our European neighbours with large numbers of serious personal injuries annually. Traffic volumes on our road network have increased very significantly over the past ten years (Department of Environment, Heritage and Local Government, Bulletin of Vehicle and Driver Statistics, 2003). Traffic congestion is proving to be both a significant constraining

factor on economic growth and development and also a major burden on our society.

Primary responsibility for road traffic, road transport law enforcement and operational traffic management is vested in An Garda Síochána (Strategic Review of Traffic Policing, 2000). The Garda Corporate Strategy outlines clear objectives to cover the period 2005–2007. Goal Three sets out *"contributing to improving road safety and reducing casualties"* as a key strategic objective.

The Garda organisation continues to manage the ever increasing flow of traffic volumes while enforcing changing legislation at an optimum performance level. However, the fact that effective traffic policing, preserving life and maximising road safety still remain key issues and suggests that an attempt to identify some of the strengths and weaknesses of a system relating to traffic management and law enforcement (and the organisations' internal controls) should be pursued. Following from this analysis, the strengths and weaknesses that exist in the environment, internally and externally, will be examined with a view to developing a Balanced Scorecard approach that will deliver on the needs and expectations of customers and stakeholders.

The matrix outlined below develops the SWOT analysis referred to earlier:

Strengths.	**Weaknesses**
• Experience. • Regional Structure. • Resources. • Synergies. • Legal Power. • Training. • Flexibility.	• Conflicting demands. • Single organisation structure. • Financial Structure. • Insufficiency of Resources. • Procurement Procedures. • Use of technology. • Skills training.
Opportunities	**Threats**
• Technology. • Structure • Role Recognition. • Existing Structures.	• Insufficient resources. • In-adequate structure. • Public Dissatisfaction. • In-effectiveness.

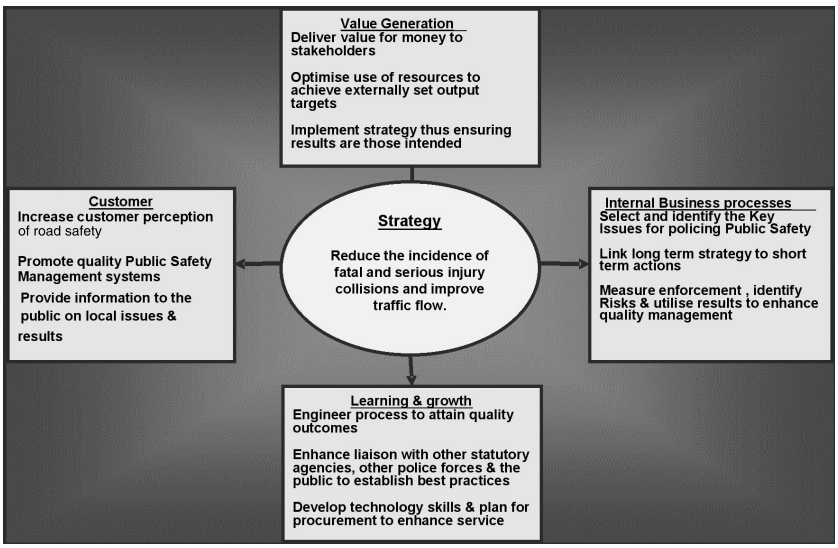
This analysis poses a fourfold question for the organisation (Kaplan & Norton, 1996).

- Is the organisation leveraging its strengths?
- Is it addressing its weaknesses?
- Is it capitalising on opportunities?
- Is it reducing exposure to threats?

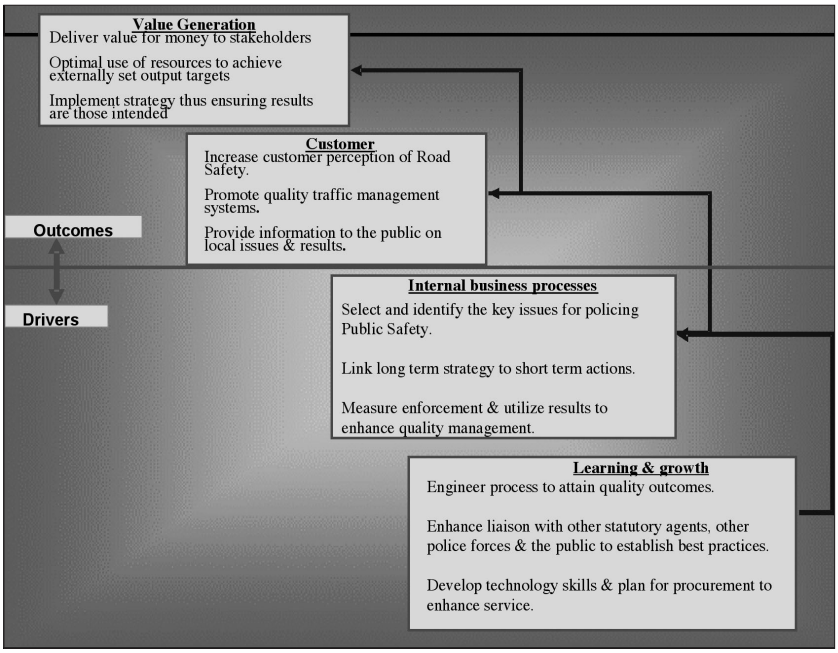
There is considerable room for improvement. This suggests to the author a need for accelerated change. The integration of planning and reporting into the management of the organisation is vital if it is to make the desired impact on road traffic issues that matter to both the community in general and our stakeholders.

The migration of SWOT (Brown, Bush, Norberg, 2001) analysis into scorecard format can be difficult but it can be valuable as it will summarise the strategic situation in a single page. The Balanced Scorecard is a dynamic living process and initially many organisations experience difficulty in translating their strategy into concrete and measurable terms. Some aspects may be poorly defined, others incorrect and possibly irrelevant. However, measures and targets can be revisited after sufficient data is gathered to determine relevance and effectiveness. The following section displays an outline projection of a Balanced Scorecard Traffic Management Model for the Garda organisation and shows how value can be generated across the four perspectives of the Balanced Scorecard. These four perspectives and their benefits are described in detail in the following sections.

The Balanced Scorecard – A Traffic Management Model



Value created by the Balanced Scorecard Framework



THE FOUR PERSPECTIVES OF THE BALANCED SCORECARD ROAD TRAFFIC MANAGEMENT MODEL.

The proposed Garda Síochána Balanced Scorecard Traffic Management Model as set out above, obliges management to choose measures that are considered important. New measures are often introduced as initiatives without any consideration of their value relative to other issues. These measures can accumulate with systems and processes created to collect, review and transmit information of so much volume that no one has time to read or analyse its results. However, this Balanced Scorecard prioritises the activities and minimises the information that management has to collect, review and report. It has the propensity to focus the organisation on effective traffic management.

Policing occurs in a continually changing environment. Therefore we must look at new ways to meet the present and future demands on the organisation, all of which provide unique and ongoing challenges.

The organisation needs a strategic management system (US Department of Commerce, 1999) that is:

- Healthy, balanced, efficient and effective.
- Capable of providing a quality service to customers and employees.
- Puts value on results.

Balance can provide the essence of a healthy organisation and this scorecard can bring about this balance while providing a quality strategic management and performance tool.

Value Generation.

An Garda Síochána is charged with the provision of police services to society at large. Anderson and Lawrie, (2002) argue that ***'Value' is determined (and maybe also defined) by an "authorising environment" i.e. the institutions(s) granting the public organisation its powers to conduct its functions and provide/authorise the necessary functions.'*** Therefore the title Value Generation is chosen to replace Financial in the framework for the Balance Scorecard suggested previously. The authorising environment comprises a complex web of stakeholders who often have conflicting interests, e.g., taxpayers want to pay less but they want more Gardaí on the streets who all exercise ***"their influence over what should constitute public value generation through democratic processes"*** (Anderson and Lawrie, 2002). Despite this complex stakeholder environment, the organisation has to demonstrate value generation to their authorising environment i.e. Government and the public on a continual basis.

This value generation can be a cornerstone of a new management system. It can be argued that this addresses weaknesses in organisational management thinking globably. Kaplan and Norton (1996) support this when they outline organisation's *"inability to link a company's long term strategy with its short-term actions"*. The value generation approach sets out what an organisation has to accomplish in the area of traffic management by ensuring operational efficiency through the examination of objectives, measures, targets and initiatives. This is outlined in the following table.

Value Generation			
Objectives	Measures	Targets	Initiatives.
Deliver value for money to stakeholders.	Develop a five point reporting plan on whether the expenditure generated has the desired effects	Review quarterly expenditure levels in all areas in terms of human resources, equipment, overtime and other allowances and match against performance thus remaining within budget.	Consult regularly with operational members to examine the value of inputs and gain ideas on the direction taken to provide the desired service.
Optimal use of resources to achieve externally set output targets.	Measure operational, non financial and financial functions that will show current and anticipated performance.	Review work practices locally and prioritise resources.	Itemise and evaluate individual policing contributions. Carve away layers of underperforming values developing a quality work ethic.
Implement strategy as planned thus ensuring results are those intended.	Ensure that expectations on annual reduction of traffic accident incidents and other performance indicators are met. Generate stakeholder approval.	Prepare quarterly reports for all stakeholders on performance and consequences both positive and negative.	Ensure management briefings and cascading of strategy to the whole organisation with an emphasis on consistent enforcement.

Internal Organisation Processes: According to Kaplan and Norton (1996), the internal business process perspective applies to those things that a business must do to meet its customer expectations. However, Aaron A. Estis of KMPG outlines that if *"a public sector organisation is deemed to be successful, it must be seen to be accomplishing its mission."* Therefore it is imperative that the organisation identifies the key business processes in which it must excel in order to execute its strategy.

Learning and Growth: The learning and growth objectives set out are of great importance to An Garda Síochána which is presently undergoing radical change. There must be organisational alignment to develop technology and obtain maximum benefits. Processes will only succeed if adequately, skilled and motivated staff supplied with accurate and timely information is driving them.

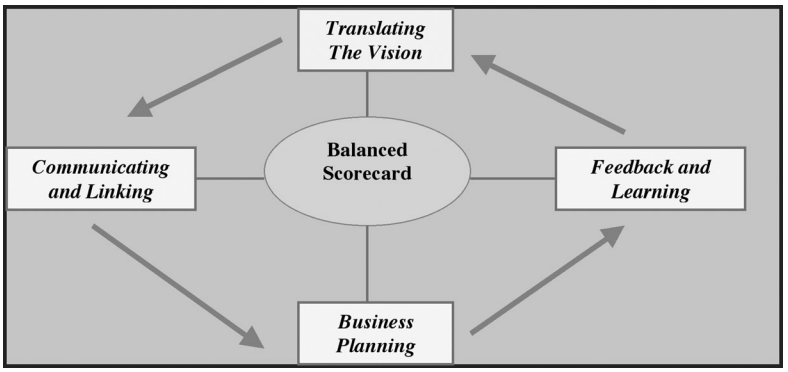
Customer: A focus on the customer is vital as both the public and stakeholders will experience value for money if there is an increased perception of road safety, quality traffic management systems and consultation on local issues and results.

The design of the Balanced Scorecard Traffic Management Model for An Garda Síochána led to many interesting discussions with senior police officers. Discussion has mainly focused on the selection of three objectives within each perspective of the Balanced Scorecard. These sets of objectives were difficult to prioritise. Visibility of key issues and drivers of police performance that add real value to the work of An Garda Síochána can be difficult to identify. Nagle and Rigatuso (2003) outlined that Directors of organisations *"have limited exposure to customers, operations and the workforce"*. This can be addressed by an automated Balanced Scorecard that provides timely relevant and accurate information.

The Scorecard allows senior Garda Officers to link long term strategic objectives with short term actions by following four processes.

- **Translating the Vision:** A strong knowledge and the objective development of the Balanced Scorecard by all Gardaí will ensure success by identifying gaps e.g. technical skills, enforcement of legislation, etc.
- **Communicating and linking:** The Balanced Scorecard is a signal to all involved and is implemented by workshops, newsletters, conferences and on a one-to-one basis.
- **Business Planning:** The goals set for the Balanced Scorecard measure the basis for allocating resources and setting priorities to achieve strategic objectives.
- **Feedback and Learning:** This is where the Balanced Scorecard achieves the centre of management systems – monitoring, reviewing, learning and growing to initiate change beyond performance measures.

Managing Strategy – Four Processes



Conclusion

The application of a Balanced Scorecard Road Traffic Management Model as set out in this article will have benefits for the Garda organisation as follows:

- The notion of individualisation that precipitated the demise of previous Performance Systems should not arise in this instance.
- Experience has shown that barriers to successful road traffic management and enforcement may be overcome with the adoption of a planned approach.
- The language used in the perspectives is common to many policing organisations and the public sector and it can facilitate the usage of dynamic management methods used in the private sector.
- The Balanced Scorecard can be utilised within the current structures of the organisation.
- It will help An Garda Síochána to ensure a balance between the outcomes they are trying to achieve and the performance drivers of those outcomes.

Senior management commitment is vital for success with the entire organisation involved. This management process depends on feedback and review to ensure success is ongoing rather than temporary.

An Garda Síochána is a professional organisation staffed by many skilled and adept people throughout its ranks. The organisation has an excellent track record with regard to the many change initiatives it has embraced. Changes are now demanded from An Garda Síochána in terms of implementing a performance measurement system. This proposal will contribute to the development of a performance measurement system for Goal Three of the Garda Policing Plan 2005 *"To reduce the incidence of fatal and serious injury collisions and improve traffic flow"* and with development and goodwill the Balanced Scorecard can be extended to the achievement of other goals contained in the Garda Policing Plans.

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Biometrics and their use in Law Enforcement

Sergeant Helen Costello

Sergeant Helen Costello

Introduction

The need for security technology and facilities for monitoring the movement of those involved in global terrorism and organised crime is a necessity. The wide-scale use of biometric technologies will help solve the problem of security and identification. Biometric technologies can assist governments in all aspects of policing including terrorism, organised crime, immigration and asylum, identifying illegal immigrants while also providing increased convenience and speed for legal immigrants. Privacy and data protection are two of the main non-technical factors that have slowed the full-scale implementation of biometrics, however people are now beginning to be more receptive to the need for such technologies to help increase security.

The biometrics industry continues to expand, with new developments and applications released regularly. This helps to overcome the challenges of identifying and authenticating the identity of individuals, which is one of the most challenging tasks for An Garda Síochána or any law enforcement agency. Any new technologies that can lead to an increase in the prevention and detection of crime and hence enhance the service to the public must be embraced by the organisation. Biometrics has the capability to facilitate this. This article is based on a thesis by the author in part fulfilment of the requirements of a Masters in Information Technology. She looks at what biometrics are and the benefits in using them. In conclusion a number of issues are identified that are key to managing a successful deployment of biometrics.

Biometrics Defined

The term biometric refers literally to a measurement of life. Biometrics can be defined as a unique, measurable characteristic or trait of a human being for automatically recognising or verifying identity (Roethenbaugh, 1988).

Biometric technologies refer to *"automated methods of identifying or authenticating the identity of a living person based on a physiological or behavioural characteristic"*. Physiologic characteristics, typically stable in nature, include fingerprint, hand silhouettes, face prints, iris pattern, and retinal pattern. Behavioural characteristics are more a reflection of an individual's psychological makeup. A human's voice and its signature are the most common behavioural traits used in identification and authentication.

Breaking down the definition and examining these keywords provides us with a more in-depth understanding of the terminology used.

Automated methods

The term Biometric Device implies that two major components are present (Bowman, 2000) :

(1) A device to capture an image of a living personal characteristic.

(2) An image for processing it is compared against other images.

These two components can be configured in a variety of ways to suit the application for which it is required. The captured image is compared to stored images. These stored images can reside on a central database. An example of this would be the Automated Fingerprint Identification System (A.F.I.S.) currently in use within many police organisations worldwide including An Garda Síochána. All stages of the comparison are automated. This enables more reliable identification than manual comparison. Without automation the procedure would be impractical and in many cases, depending on the characteristic chosen, it would be impossible to make a decision with any great accuracy. Physically matching the individual that presents herself/himself for identification to a photograph previously obtained is an example of the procedure without automation. This is unsatisfactory and can be easily circumvented.

Identification and Authentication

These are the two most important aspects of the definition of biometrics. The design and techniques used in the development of a Biometric system are completely different depending on whether the purpose of the system is to identify an individual in a group or to authenticate the individual's claim of identity.

A verification system authenticates a person's identity by comparing the captured biometric characteristic with the person's own biometric template, previously stored in the database. It answers the question "Are you who you say you are"? The system takes a yes/no decision and makes a 1:1 comparison. An example of this would be an employee entering the work premises.

In an identification or recognition system, the system establishes a person's identity by searching the entire database for a match. The system answers the question: "Who am I"? The person does not have to claim an identity and no match is made if the person is not previously enrolled in the database. An example of an identification system would be the Garda National Immigration Bureau System, (G.N.I.B.) which attempts to establish the identity of an individual seeking entry to the country. If a deportation order is in existence for an individual it is possible that they are already enrolled on the system and the entire database is checked for a possible match.

Living Person

The term "living" separates the biometric industry from the forensic identification field, although they share some of the same fundamentals. Also many of the devices used, initially determine whether there is a live characteristic being presented. This is to ensure that an individual is not trying to fool the system for example by presenting a latex finger or false eye for scanning. A number of identification systems are based on biometric technologies but do not use live system samples. An example is the Garda Technical Bureau Facial Image Recognition system used for matching photographic images stored within the PULSE system, An Garda Síochána's enterprise wide system, against images retrieved as a result of a criminal investigation.

Physiological and Behavioural Characteristics

A physiological characteristic is a relatively stable characteristic, such as a fingerprint, hand silhouette, iris pattern, or blood vessel pattern on the back of the eye. Such physical characteristics are basically unchanging and unalterable without significant duress. A behavioural characteristic is more subjective to the individual's make-up. Examples would be how one speaks or how one writes one's signature. Voice verification is not what a voice sounds like; it's about how a person's physiological make-up determines their voice (Harris, 2003). Lips, skull density, nasal capacity and the modulus of vocal cords can all influence the way in which someone speaks. Behavioural characteristics will vary over time and to overcome this the stored biometric information must be updated continuously.

Uses of Biometrics

Biometric methods are generally positioned as security mechanisms, and can provide solutions for the increased security requirements of today's information society. Systems use biometrics for two basic purposes: to verify or to identify users. It offers a convenient alternative to carrying documents, remembering passwords, and entering personal identification numbers. Taking into account that a number of issues do exist in relation to the privacy and protection of an individual's biometric information, it is important to recognise that they can also provide an effective way to preserve privacy and protect against identity theft. Biometric systems can be used for:

- Physical Access - required for high security areas such as police and military facilities, banking institutions etc. It could replace the use of a car key making it impossible to start a car without the owner's biometric sample such as a fingerprint being authenticated.
- Virtual Access – logging onto a computer network or laptop.
- E-Commerce Applications – authentication of persons engaging in transactions over the Internet.

- Surveillance – this involves using biometric systems for covert identification as opposed to overt authentication associated with the previous three uses.

As part of the preparation and research for a conference on "Police Information Technology Co-Operation in an Enlarged EU" hosted by the Garda IT Section in May 2004 a questionnaire was circulated to all delegations. The attendees represented police organisations worldwide. A number of questions relating to Biometrics formed part of the questionnaire. This research highlighted not only the usage and potential usage for biometric systems within law enforcement but also the fact that resources must be assigned to address the challenges associated with such systems.

- 75% of the respondents stated that they have some form of biometric system in place. The remaining 25% are currently planning to implement one.
- Of those respondents that have got systems in place 50% were not happy with them. Issues encountered included poor quality of captured data, user concerns over privacy, legal issues, and technical issues.
- 77% of respondents indicated that the use of biometrics will become a major influence in their organisations by 2006.
- 94% agreed that accuracy and performance needs to be addressed if biometric technology is to be more widely used.

The following are the most commonly used and furthest developed biometric methods available for use within the policing environment.

Biometric	**Use or potential use within Police Work**
Fingerprint	This method provides highly accurate identification of suspects at scenes of crime, while on patrol, checkpoints etc. Logging onto high security systems.
Facial Recognition	A non-invasive form of identification suitable for border security, immediate identification of suspects in custody or against video footage and can assist in locating missing persons.
Iris/Retina	Provides for high accuracy but also requires a co-operative user. Suitable for physical access control systems.
Hand Geometry	Physical access, time and attendance.
Palm Print	Scenes of crime.
Signature Analysis	Identifying fraud and authenticating documents.
Voice Pattern	Surveillance – monitoring telephone traffic.
DNA	Identification purposes either of victim or perpetrator.

In light of the other biometric options, DNA would be considered overkill for the purpose of identification of normal activities requiring an identification or authentication system. Also, with DNA the identification is not in real time as with other biometric methods listed above and not all the stages of comparison are fast or automated enough for day to day usage.

How do Biometric Technologies work?

Biometrics relate to the authentication of living individuals in two ways:

- Verification (authentication) of identity – the system confirms that you are who you say you are.
- Identification – the system recognises you by a specific characteristic such as a fingerprint and matches this fingerprint to a record stored in a master database.

Irrespective of what type of biometric technology being used or which of the two methods listed above is being used to authenticate an individual, the basic procedure for storing and retrieving biometric information is uniform. There are two phases in the system, one is the enrolment phase, and the other is the verification phase.

The Enrolment Phase

The collection of biometric samples, the so-called biometric data such as an image of the fingerprint, a picture of the iris or of the retina, a recording of the voice, to list but a few, is carried out during a phase called "enrolment". The sample is scanned using a biometric sensor specific to the biometric sample, which could be a retina or fingerprint and is stored in a database along with the subjects name and other identification details, in digital format. The biometric system extracts from the biometric data user-specific features and these features may be stored as raw data or used to build a biometric "template". These data can be stored in a central database or transferred to a smart card such as an identity card or credit card and issued to the individual depending on the objectives of the application.

The Verification Phase

When the individual presents their "live" biometric characteristic to the system, a biometric reader captures the characteristics of the individual and converts them into a digital format similar to the format of the stored biometric information, also referred to as a template. It is then matched and compared to the stored template in order to establish the identity of the individual. This is known as the verification phase. If a match is made and it falls within a certain statistical range of values, the match is considered to be valid by the system (Corien, 1998).

Depending on the application, a biometric system may either operate in a verification (authentication) mode or in an identification (recognition) mode.

Benefits in using Biometrics

It is said that with biometric products you are able to reach the highest level of security available (Huopio, 1998). Three levels of security can be identified:

- The lowest level of security is defined as *something you have* in your possession such as an ID badge with a photograph in it.
- The second level of security is defined as *something that you know,* such as a password used with computer login or PIN code to use your bankcard at an ATM.
- The highest level of security is *something that you are* and *something that you do*. This essentially is what biometrics lets us achieve.

Biometrics provides us with methods to let us achieve the highest level of security for enterprise wide computer networks, office buildings, high security areas, electronic transactions, preventing and detecting crime or any function that involves identifying an individual or verifying their identity. Using biometric identifiers offers an added advantage to users over alternative methods in that they cannot be stolen, borrowed or forgotten, as the individual requesting access or authentication has to be physically present at the point-of-identification. Passwords can be shared, guessed, observed or stolen therefore providing a vulnerable form of security. Swipe cards can be passed on and could easily fall into the possession of an impostor who could gain access to a secure building. They offer a more convenient and secure alternative for both users and the administrators of an organisations security policy and procedures.

Biometric characteristics provide a stronger proof of identity than any other identifier. This helps in the elimination of fraud and forged identities and enables businesses to offer an enhanced quality service. There has been a rise in identity theft worldwide and biometrics provides an effective way to help combat such crimes. Bearing in mind that there are major concerns in the area of privacy and the use of biometric technologies, maybe it is also true to say that they can protect personal privacy by safe guarding an individual's identity and integrity.

Identification and authentication using biometric solutions are conducted in real time and users should experience no delays in the process. Reduction in costs also makes it a competitive choice against alternative identification and authentication methods.

Research by the Gartner Group claims that an estimated 70% of all helpdesk calls are in relation to forgotten passwords and the cost of resetting a password was between $14 and $18 per password (Sweetman, 2003).

Biometric systems such as those used by law enforcement agencies for surveillance can help in the identification of missing persons or children. Immediate identification of suspects or criminals can discourage criminal practice and make places safer for the general public.

Criteria for a complete biometric solution

A number of vendors exist worldwide that offer a total biometric solution to meet the security needs and identification requirements of organisations. By total we mean hardware, software, storage devices, scanning devices and training. Each solution is based on a specific biometric method such as fingerprints, facial recognition, iris or retina scanning to name but a few. The selection of the appropriate total solution is very much influenced by the business requirement or application and the selection of a biometric method is dependent on the type of user identified for the system.

From examining the biometrics industry and researching the different types of biometric applications and biometric methodologies available the following criteria is necessary for a total biometric solution irrespective of the application or method proposed.

- Timeliness – the capturing and matching process should not cause undue delay to the individual.
- Performance.
- Acceptability.
- User friendliness.
- Legal and Privacy compliant.
- Safe and secure.
- Reliable.
- Cost-effective.
- Ethical and proportional to the application.
- Interoperable with existing and future systems.

Key Issues for Organisations considering Deployment of Biometric Technologies

The following list highlights a number of key issues for management who are considering deploying a biometric system within their organisation.

- Do not reinvent the wheel. Carry out research in other government departments or private sector companies and establish if there are any other organisations or companies that have implemented biometric solutions to meet similar requirements.

Management Responsibility a

Introduction

The criticisms contained in the report following Module II of the Morris Tribunal are unequivocal, grave and largely indisputable. The issue now is how we best deal with the situation, how we respond to the criticisms of Morris, how we repair those aspects of our structures and procedures which have been found lacking and how we support those members of An Garda Síochána who have been disillusioned by recent events to best position An Garda Síochána for the future. This the newest managerial challenge to face Garda management.

Management

'Management' has been considered by many academic theorists. A conceptualisation which is straightforward and intuitive, in my opinion, is that of Henry Fayol (influential French Industrialist of the late 1800's who contributed significantly to the theory of modern management). Fayol considered that Management entailed four aspects; Planning, Leading, Organising and Controlling. I would ask you to contemplate the meaning of these four words in terms of your day-to-day activities. How much time do you devote to each? To what extent do you take personal responsibility, take personal control, contribute directly to planning, double check what you are being told, lead by personal example etc.

Accountability

The concept of 'accountability' is inextricably linked with and to that of 'management'. Accountability is typically taken to mean 'answerability', 'responsiveness', 'openness' etc. When one talks of accountability a distinction must be drawn; that is between the accountability of individual policing agents as they go about their day-to-day activities and the broader organisational policing policies concerned with overall priorities, resource allocation and policing styles etc. (Newburn, 2003 Pg. 605) The accountability of the broader organisation is largely judged or determined by the actions of those managers best positioned to influence the critical mass of the organisation. Sections of the media may believe that An Garda Síochána isn't accountable as such. Accordingly, you and I are the people best placed to impact on how An Garda Síochána is judged. We are the core group who can influence the accountability equation and contribute to the accountability outcome.

While there will always be external mechanisms of accountability, manifest through legislation, through Governmental regulation, through media scrutiny etc. I am most concerned with the internal mechanisms of accountability manifest through our

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reporting structures, internal processes and ultimately personal commitment particularly at this time.

RESPONSIBILITY

Accountability is part and parcel of management and with accountability comes responsibility. When An Garda Síochána gives one of its members authority (or the legitimate right to use power over others), it expects something in return. Authority always carries with it the burden of responsibility.

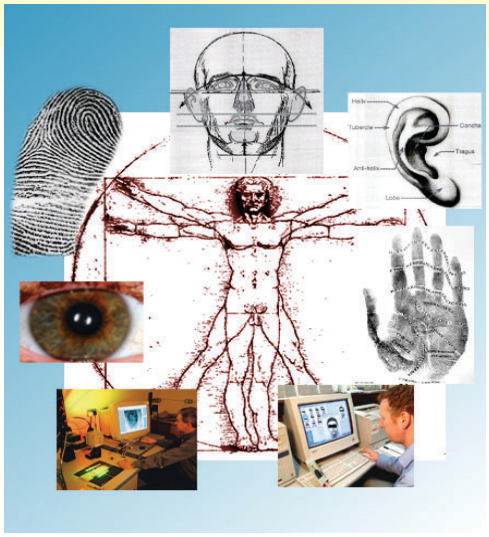
To put this another way, it has often been said that a manager may delegate tasks to others, but that he/she cannot delegate responsibility. For Garda management 'responsibility' includes being accountable for (even being held accountable for) attainment of the goals of An Garda Síochána. As the senior managers of An Garda Síochána we cannot afford to be complacent of our managerial role. We must take control and accept the managerial challenge of responsibility.

I am not suggesting that we disempower those who report to us. On the contrary, I am stressing a recognition of our professional role in a managerial process which has collaboration and involvement at its core, but more significantly places a clear burden of responsibility on managers. The police leader of today must be able to meet the demands of a modern performance culture where 'continuous improvement' has to be demonstrated. To achieve this I suggest to you that we need to be more 'visible' than ever before.

At a time when An Garda Síochána receives approximately 1.15 billion Euro from central exchequer funds, and when we are entrusted with a monopoly position in terms of policing this State, we are duty bound to deliver to the Irish people. As senior managers we are best placed to deliver on this obligation for and on behalf of An Garda Síochána.

Senior managers must take stock of their areas of responsibility now. Arrange for Sectional performance reviews, audits, and take any other steps appropriate to fully discharge their management. In simple terms, send out a message that Garda management take their responsibilities seriously; get and stay involved. Where there are emerging problems, deal with them immediately and thoroughly to protect the interests and reputation of An Garda Síochána.

Peter Fitzgerald, Editor.



Biometrics and their use in Law Enforcement

Core Process Redesign or Back to Basics

- Alternative identification and authentication methods to biometrics do exist, for example photo ids, swipe cards containing non-biometric identification information such as name, address and date of birth should be considered.

- A biometric system requires time, money and energy to set-up. All users have to be enrolled and trained in the system and this requirement is easily underestimated. Costs also include hardware, software, processing power, research and testing of the system, installation and user system integration, system maintenance and productivity losses due to the implementation learning curve.

- Due to religious, cultural, environmental or medical reasons, not all people will be able to use a biometric system, so back-up systems must be thought out and put in place. In the event of system failure a cost efficient manual fallback system such as swipe cards, passwords, pin numbers, manual clearance must also be in place.

- While user acceptance rates for biometric systems is generally good, there are always a few people that will object to new technology. Be prepared for this and perhaps try to pre-empt it by incorporating it into a change management strategy and by building critical mass at the early stages of development.

- Have a clear policy in relation to what is referred to as "function creep". This is where the biometrics data collected is used for applications other than originally intended.

- Any medical, legal or privacy issues that have been linked with the proposed biometric system should be researched in depth. This will prevent them impacting on the success of the system once deployed.

  Currently there is no evidence to suggest that there is a link to medical problems as a result of the use of biometric technologies, however this could be as a result of their current limited use. In Ireland the Data Protection Act 1988 and 2003 confer rights on the individual as well as responsibilities on those persons processing personal data. Biometric data is personal data. The European Data Protection Directive 95/46/EC also applies to Biometric systems. German privacy law places a legal obligation on those using video surveillance in public places to give visible notice to citizens. Fingerprint recognition analysis is accepted as expert evidence in criminal cases worldwide, however laws do exist that could limit the wider use of fingerprints in commercial security systems. As yet there are no legal limitations in relation to iris or retina recognition.

- System integration is crucial to the success of the implementation and requires planning. The system must be integrated with the business and day-to-day work processes of the parent organisation.

- Use a reputable and proven vendor whose technology has been formally and openly evaluated for accuracy and performance measures. A system, which claims to have a high security rate, may have been tested in a controlled environment and may not meet operational requirements in an uncontrolled real life situation. Observing real systems in operation will demonstrate how the end users adapt when faced with systems that were designed from an exclusively technical standpoint (Rejman-Greene, 2003).

Conclusion

Like all emerging technologies, Biometrics has problems. Limitations exist in single conventional biometric methods where no single method can provide 100% accuracy for an organisation. Ongoing development and testing in multi-modal systems, which consists of a combination of biometric methods, will facilitate the development of more accurate systems with higher security requirements.

There is a need for understanding and appreciation of the importance of non-technical issues in the deployment of biometric-enabled systems. Biometrics brings together identity, technology and IT security. In fact, managing a biometric implementation is as much about managing the social process and the effects of changes to business processes, as it is about managing the technical process.

Further legislation needs to be enacted at National, European and International level to protect the owners and the users of such systems and to make sure these technologies do not undermine the freedom they are supposed to protect. Also, regulations and procedures need to be created at organisational level in order to establish a framework in which to manage a successful biometric implementation.

Globalisation and the resultant increase in social mobility have led to an increase in highly organised and effective cross-border criminality. Biometric technologies will become a critical front-end in areas that require proof of identity, elimination of fraud and physical and logical access security systems. Initiatives such as biometric identification can assist in the traceability of criminals, thus limiting the scope and effectiveness of individuals with criminal intent. A pro-active approach is required to educate and inform the public of the benefits of using biometric technologies. This combined with the standardisation of the technical methods used in gathering and storing biometric data will result in successful and effective deployments.

The implementation of Biometric systems by An Garda Síochána namely A.F.I.S and Facial Image Recognition Software in the G.N.I.B system has shown the ability of the organisation to embrace and successfully implement new and evolving Biometric technologies. Each Biometric project and its context is unique; therefore learning will always be an important part of the process. The experience gained to-date however has equipped An Garda Síochána with the knowledge and expertise needed to further expand implementation in the future for the benefit of all stakeholders in policing in Ireland.

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Crime Analysis and The Use of Alternative Data

Superintendent David Tuthill

Superintendent David Tuthill

Introduction

For almost all of our history as an independent State, the only significant source of reliable statistical information on crime in our society has been provided by An Garda Síochána in the form of Annual Reports produced by the Garda Commissioner. However, there are many who would see the reports that are published by An Garda Síochána as fundamentally limited in what they tell us about crime in the broader context. These limitations are largely focused on the fact that the official statistics produced in Garda reports are based entirely on crimes reported to or detected by An Garda Síochána itself and, as such, are not necessarily an accurate reflection of the totality of crime occurring in the environment under examination. This limiting factor is by no means unique to Ireland and the gap between what might be the real level of crime and the officially recorded level of crime (the dark figure) has, in recent years, become the subject of more intense research and analysis, both in Ireland and abroad.

Following the publication of the 2002 and 2003 crime figures, Dr. Ian O'Donnell, writing in the Irish Times, took issue with the Garda Annual Report on several fronts, including that of 'the dark figure' problem; *" it can say nothing about crimes that are not reported to the Gardaí…It is difficult to estimate it's size without conducting regular surveys among the general population"* and he argues that we cannot fully understand or analyse what is going on if we do not integrate all the relevant data capable of being gathered or produced by criminal justice and other interested agencies. Analysts in many countries now augment official figures by using different data sources and gathering techniques in their efforts to measure the levels of unreported crime and victimisation. In the US and UK, for example, the official reports are prepared and issued using both police captured data and survey data.

International Perspective

In the United States there are two sources from which crime related data is used for the production of official reports. Firstly, there is the Federal Bureau of Investigation's (FBI) Uniform Crime Reports (UCR), which is produced annually from uniform sets of statistical data gathered from some 17,000 city, county and state law enforcement agencies across the United States. However, data is only collected in respect of the following offence categories: Murder/Non-negligent Manslaughter, Forcible Rape, Robbery, Aggravated Assault, Burglary, Larceny/Theft, Motor Vehicle Theft and Arson.

The second data set is gathered through the National Crime Victim Surveys (NCVS). This survey, which has been on-going since 1973, is conducted annually and each year surveys a representative sample of 42,000 households, comprising nearly 76,000 persons that are questioned on the frequency, characteristics and consequences of criminal

activity in the United States. From the gathered data, the Bureau of Justice Statistics (BJS) presents statistical reports that provide victimisation estimates for various offence categories similar to those captured by the UCR.

Both of these recording and reporting mechanisms have their limitations. Firstly, the type of crime used to gather offender related data in the NCVS is restricted to such crimes as serious assaults, rape and robbery etc. and consequently any conclusions reached with regard to offenders must be reasonably contained within the limited crime set under review.
Secondly, the NCVS cannot tell us a great deal about the actual offenders themselves or their socio-economic circumstances since the questions posed to the victims are limited to basic queries about the age, sex and race of the offender and the victim's relationship, if any, to the offender.

The official FBI data is not without it's own problems, not the least being the extent to which the UCR data is complete in terms of the information passed to it from the various U.S. law enforcement agencies and it has been estimated that as many as 35% of police departments fail to completely report their arrest data to the FBI (Maltz: 1999). Secondly, the size of the various police departments that fall within the above group will also affect the results. For example, full and compliant reporting by the Sheriff's Department in Ballston Lake NY, will not have the same impact as a filtered or semi-compliant report from an agency the size of the New York Police Department (NYPD) and vice versa. Thirdly, and of equal concern, must be the use of the UCR report to estimate offender rates. The UCR arrest statistics report the number of individuals that have been arrested by law enforcement agencies in any particular year and not the number of individual arrests that have been made.

The United Kingdom

In the U.K. there are also two major sources of data on crime; (i) Home Office Statistics on reported crime gathered from the different police forces in England/Wales and (ii) the British Crime Survey. Unlike, the UCR data gathered by the FBI, the reporting of crime by police forces in the UK is mandatory for all notifable offences recorded by the police. Notifable offences relate to the more serious categories of crime and most of the minor summary offences are excluded from the mandatory reporting process. The Home Office issues rules to police forces on the counting, classification and recording of crime as well as rules relating to the recording of detections.

In 2002, the National Crime Recording Standard (NCRS) was adopted by all police forces in England and Wales. This standard has been implemented in an effort to improve the consistency across the various police forces in the recording of crime. The Research, Development and

Statistics Directorate of the Home Office also conduct the British Crime Survey (BCS). The BCS tries to estimate the amount of crime being committed, including crime not reported to the police. The BCS also poses questions covering people's attitudes to crime (including how much they fear crime and what steps they adopt to avoid it), people's attitudes towards the various elements of the criminal justice system and it also attempts to identify those who are most at risk from crime. The report *'Crime in England and Wales 2001/2002'* (Simmons et al:2002) for the first time combined police reported data and BCS data into an annual publication; the intention being to present a different insight into crime than could otherwise be provided by either the BCS or police reports when viewed in isolation.

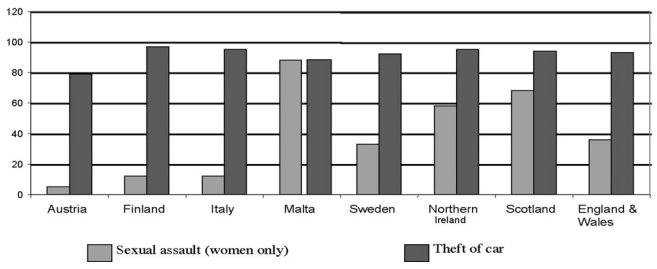
While the complimentary approach now adopted in the U.K. is clearly better than that which prevails in the U.S., some limitations remain with both sets of U.K. data. Firstly, the police are not required to report on all crime that is disclosed to them and, while the BCS compensates to some degree by it's estimations from the survey data, the full extent of officially recorded crime remains undisclosed. Secondly, while the BCS participants are randomly selected from householders not everyone is a householder; therefore the sample is not truly representative for the total population.

The True Level of Crime

There is a wide spread view among criminologists that official statistics tend to under represent the true level of crime in any particular society and there are those who, not without some cause, suggest that the true rate at which crime occurs in certain categories is significantly higher than officially reported figures. The evidence from surveys conducted in other jurisdictions would support this view and also show that the degree to which unreported crime occurs can vary widely between the type of offence and geographical location.

An extract of eight reporting countries (Fig.1) taken from the International Crime Victim Survey (Killias et al: 2003), shows that there is a strong similarity between countries with regard to reporting rates for car theft, (with the exception of Austria at 80%) there is close to 100% reporting but there is a stark difference in the reporting rates for sexual assaults on women.

Fig.1 ICVS data of percentage reported to Police averaged over three sweeps conducted in 1992, 1996 & 2000



Austria has an extreme low of 5%, while another five of the seven countries are below 50% and Malta at the other extreme shows an 88% report rate. The closeness of the reporting rates for car theft is probably explainable in the context of car insurance claims and the underwriter's requirements but the wide disparity in the reporting rates for sexual assault among these countries is not so easily accounted for. Additionally, there is the whole area of victimless or consensual crime. These crimes have certain unique characteristics and they are only likely to be disclosed as a result of detection since none of the parties involved is likely to report their activity to the authorities. The degree to which consensual or so called victimless crime occurs is in all probability much higher than official figures can indicate and the true extent of their occurrence is probably only quantifiable through a targeted survey mechanism.

Some of the questions posed in the 1998 module on crime, included in the CSO's quarterly national household survey, show different reasons for not reporting (Fig .2).

Fig.2 QNHS reasons for not reporting

Not serious enough
Solved it themselves
Reported to other authority
No insurance claim/could not claim
Believed the Gardaí could do nothing / no proof
Believed the Gardaí would do nothing
Did not wish to involve the Gardaí
Fear of reprisal
Other reasons

Under these headings and in respect of two types of crime (assault and theft of motor vehicles), the percentage that did not report on the basis that they believed the Gardaí could or would do nothing about the incident was quite high (30.6% for assaults and 19.1% in the case motor vehicle theft). However, in the case of the latter, the figure is entirely composed of those who believed that the Gardaí could do nothing about it; nobody indicated that they believed that the Gardaí would do nothing about a reported vehicle theft. A once off survey of this nature will not establish a reliable pattern for Ireland, but it must raise some concerns particularly in the light of the trends depicted in the International Crime Victim Survey relative to the reporting levels for certain types of crime. Whatever the reasons behind under-reporting, any action that is successful in its attempt to encourage more people to report crime is likely to result in higher levels of recorded crime and this may produce a reluctance to pursue such a strategy. Therefore, managing any anticipated increase would be essential and from a policing perspective may necessitate a significant review of the use and availability of resources. A successful strategy that encouraged more people to report crime could also be seen as a reflection of increased confidence in the police (O'Connell: 2000).

Another limitation with the official data produced on crime is the fact that there are many offences where An Garda Síochána is not the prosecuting authority for example, television licence evasion, social welfare fraud and revenue offences. Therefore, the information on the number and type of these offences does not appear in the Commissioner's Report (Young, O'Donnell & Clare: 2001) and it may well transpire that there are more than coincidental relationships between those persistent offenders that come to light in the course of Garda investigations and the offenders that are disclosed by the investigations of other agencies of the State.

At this time there is no mechanism for the regular and consistent collection of alternative crime, victim and offender data in Ireland and, should such a mechanism be developed, it would be essential to consider some issues that can and do arise in the construction and interpretation of a regular survey process. The first issue that arises with gathering survey data is the design of the survey. There have been quite a number of crime and victim related surveys conducted in this jurisdiction over recent years. However, the approach, scope, and focus of virtually all of these surveys have been different and, as a consequence, they do not readily lend themselves to any degree of meaningful comparison with each other. One-off surveys provide us with a snapshot in time but are of little value when it comes to identifying trends.

If survey data is to be used to draw comparisons with official crime data, then careful thought must be given to the subset of offences around which the survey will focus. This consideration is essential to ensure that the public's understanding of the chosen offences is generally aligned to the legal definitions. To this end, the chosen offences should be relatively straightforward to understand; for example, thefts of property or burglary are offences that the general public would readily associate with. The survey design should also be consistent with the format of the ICVS so that Irish data can be compared with data from abroad.

The timing of surveys poses another set of problems; firstly, if comparison is to be made with official data, then the survey data should, as far as is practicable, reference the same time period. The 1996 Quarterly National Household Survey that included the module on crime is perhaps a useful model from which to start designing a victim survey. This survey has two aspects that should be reconsidered; firstly, the survey did not concern itself with people under the age of sixteen and this leaves out a significant proportion of the population. The 2002 census shows that there were 827,428 people under the age of fifteen and this equates to some 21% of the total population. It is also generally recognised that young people are both responsible for and vulnerable to a lot of crime (Newburn: 2002). Secondly, the QNHS is confined to householders and this immediately excludes some of the more vulnerable members of society. Equally, a

household survey does not specifically address crimes that occur in a commercial context or particular types of consensual crime and it may be necessary to augment household surveys with specifically targeted surveys.

Conclusion

It is evident that the available data on crime, victims and offenders is not sufficient to meet the information demands of all those interested in the criminological field. An Garda Síochána produces its own statistical reports for Government and internally for its own managers but as we have seen the official reports do not contain the full range of statistical data that is required in the broader context. While An Garda Síochána is the primary agency for the detection and prosecution of criminal offences, it does not have the monopoly for the investigation of all offences. The official data that is published by Government should contain information regarding offences that are detected and prosecuted by all Government Agencies. All official data should be published in a consistent format and the *Expert Group's* recommendations on crime statistics should be implemented across all official agencies to ensure consistency of approach in terms of recording, counting and reporting.

Enunciating the reality of the so called *'dark figure'* through the use of victimisation surveys or other data gathering techniques and any subsequent attempt to measure and compare the gathered data with official statistics should not be conducted or viewed as a direct challenge to the official statistics. Instead, it should be viewed as complementary rather than contradictory information that is necessary to improve our understanding of why people commit crime, the factors that contribute to and promulgate the commission of crime and the consequences that the commission of crime has for victims and society in general.

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Core Process Redesign or Back to Basics

Inspector Jerry Barrett

Inspector Jerry Barrett

Introduction

This article is put forward as an innovative view of how the Garda organisation could grow and develop to meet society's challenges in the years ahead. The author proposes it as a constructive academic exercise and that it is not meant as a criticism of any section of the Garda organisation in any way.

The article highlights an alternative approach that the organisation could develop and nurture to create the dynamics required to meet these challenges. The article does not propose to address management issues like organisation culture, corporate culture, leadership or aspects of human resource management.

An Garda Síochána is currently providing a police service within an Irish Society that is changing to a more pluralistic, open and modern model of social activity. The organisation has made many incremental changes over time to meet emergent policing challenges. However, the organisational structure and operational environment has basically remained the same since the foundation of the state. External pressures now require the organisation to rethink the way it does its business. The organisation must now consider conducting a core process redesign (Kaplan & Murdock, 1991), rather than looking at singular aspects of organisational change. Core Process Redesign (CPR) urges a cross sectional review of the way the organisation operates. CPR can therefore bring about a more cohesive, organised approach to providing the best police service possible for today's demands.

First Steps

The first step is to examine the nature of the organisation. Over the last number of years the Garda organisation has been orientating itself as a market-driven profit-making model; the Corporate Strategy 2005-2007 and the Policing Plans have tended to reflect this approach. However our core output must be seen as providing a police service to the people of Ireland within an EU context commensurate with the constitution, current legislation and public priorities. The exact nature of the police service has evolved over the years from the Conroy Report (1970), the Walsh Report (1985) to the later day organisational Corporate Strategy 2005-2007. The first point to make is that An Garda Síochána differs from the private sector model as outlined on the next page.

Private Sector Model	An Garda Síochána
Price Driven Profit	Public Good
Exists to supply market	Exists as a result of
Invisible hand of the Market	Government/Social Policy
Individual choice	Excessive demand for policing
Supply and demand	State monopoly
Customer led	Resource confined
Market flexibility	Political priority
Strategy to achieve greater	Imperative need for stability
Market share	Corporate planning to meet
	Political/policing demand

The dichotomy high-lighted by this analysis indicates challenges for Garda management. In the private sector the achievement of profit and customer satisfaction is necessary for a company to survive and therefore relatively easy to measure and set performance goals. In the Garda organisation the existence of the public good non market-driven distinction requires the organisation from a CPR point of view to formulate an alternative conceptual model for assessing the organisation's goals. It is also a suitable model for the implementation of market orientated management theories.

Primary output of the organisation

In order to conduct a CPR it is necessary first of all to establish and clarify what the primary output of the organisation is. If this can be done in an empirical fashion then the organisational structure can be enhanced to provide an efficient operating model. Like most organisations with a public good output, a new empirical method of viewing the organisation is necessary to establish what, if any, improvements can be made for the long term delivery of that service.

To achieve this, the author has decided to start from the primary output point of view and examine what factors of production contribute to this output. What exactly should the organisation be focusing on in order to provide a police service to the people of Ireland within an EU context? The *"science of muddling"* has long proven that necessary organisational changes made over time in response to different demands become established as accepted practices and formulate an accurate history of an organisation. This being the case the activities of the organisation as it now stands should help us formulate a primary function picture of the organisation.

- Patrolling
- Crime Investigation
- Traffic Policy
- Public Order maintenance etc.
- Divisional Traffic Units

If all of these activities are viewed as factors of production to the primary function, (the primary function being an efficient and effective police service), x, then we can state that a = x.

However that would not explain the full factors of production; what about the Garda College at Templemore? If we regard Student/Probationer production training and Continuous Professional Development (b) as factors of production then a + b= x.

We must now examine units that contribute to the primary function but have a specialised role, these units are defined as having a contribution of c to the output x. The production of c necessities that professionally trained Gardaí are taken from our core output x and allocated to specialised units/sections. It is also a fact that members assigned to these units adopt a different operating procedure with a different focus and work culture in order to work successfully. This has implications for the organisation and requires consideration. Activities in these areas are specialised and in some cases have a different outcome to x. So now we can see that the role of policing becomes increasingly complex from an organisational point of view e.g. a + b + c = x.

Specialisation function output to X

- SDU
- National Criminal Intelligent Unit
- Criminal Assets Bureau
- Money Laundering Investigation Unit
- National Bureau of Criminal Investigation
- Garda National Immigration Unit
- National Drugs Unit
- National Community Relations
- Garda Interpol
- Europol
- Air Support
- Command and Control
- Water Unit
- Mounted Unit

No assessment of the factors of production would be complete without factoring in the function of an organisation's headquarters (d). The following are the main sections (although not exhaustive) attached to Garda Headquarters.

• Commissioner's Office • Deputy Commissioner, Strategic and Resource Management • Deputy Commissioner, Operations • Human Resource Management • Internal Affairs • Liaison and Protection • Internal Audit • Organisational Development Unit • Change Management • Services/Telecommunications • Technical Bureau	• IT Management • Garda National Traffic Bureau • Crime and Security • Finance • Housing • Staff Office • Defence Unit • Transport • Medical Centre • Driving School • Central Stores (placed with HQ)

Now we see that the core production function of An Garda Síochána increases in complexity and can be formulated as follows:

$$(a + b + c + d) = x.$$

The usefulness of this equation is that it helps focus attention on x, the function of the organisation, and to equate how differentiation (Lawrence & Lorsch, 1967) helps to contribute to this function. It also assists in identifying secondary contributory factors which may not be necessary for the Garda organisation to undertake or perform at all.

This then allows us to identify activities of the organisation which can be selected for review and possibly create opportunities for returning resources to x. In this regard the author is relying on his own personal knowledge of the organisation. Indeed there are some areas that the author is not qualified to comment upon and further research would be necessary. This should not be seen as an ultimate or exhaustive list and is only used to demonstrate the benefit of looking at organisational structure from a differentiation point of view using the primary function of the organisation as a starting point.

• Garda National Immigration Bureau • Command and Control • Water Unit • Mounted Unit • Criminal Assets Bureau • Money Laundering Investigation Unit • Garda National Traffic Bureau • Housing • Defence Unit • Transport • Telecommunications • IT Management • Medical Centre • Human Resource Management • Central Stores

The sections outlined above will have to be viewed from an organisational perspective based on the x production function. The advantages of this model of CPR are that it is empirically solid; however, further research would be necessary if the model was considered suitable for adoption.

The following example highlights the possible contribution:

Core Function	x
Primary Function	a
Garda Training	b
Specialisation	c
Garda HQ	d

If estimated values are added to the factors of production then we can start prioritising resource allocation in the following fashion.

Example:

a = 60%
b = 10%
c = 15%
d = 5%

60 + 10 + 15 + 5 = 90%

If 60% of the primary function is seen as contributing to x then it follows that more resources should be focused in that area. The reverse is also correct in relation to activities which make no contribution to x. Any strategic review would then concentrate on the function of x which would bring clarity to this necessity.

By proving and placing values on x, should allow clarity for the organisation and indicate a clear path for resource allocation. There are several practical implications for organisations contemplating this approach.

Strategy

There are of course strategy formulation implications involved in using this model. Rather than having a policing plan with a multifaceted approach, this model would dictate that we look at x as a starting point, from the primary function to the factors of production. This, of course, would lead this theoretical argument to Divisions and Districts. The Division/District would now have to look at their primary function and requirements, in this context the County Development Boards and local representatives would be critical. It would also be necessary to incorporate proper boundary spanning to this debate.

There would be greater ownership and commitment to the Policing Plans thereby preventing a disconnect in implementation. There would also be greater Divisional focus to particular problems in accordance with local community requirements. The Divisional Plans would then be the basis of the annual policing plan which would be agreed by senior management.

Recently management have focused on strategic planning to help mould the organisation towards achieving its goals. In an organisation like An Garda Síochána this would seem to be an excellent solution to assessing the police service provided, however by using CPR its success rate in this area could be improved dramatically.

What happens if strategy formulation itself is flawed? Is the strategy formulation and particularly the focus on the centralised stakeholders approach the best model? To write to various interest groups in different parts of the country seeking their views about the type of police service they require is an excellent approach. However the suggestion that interest groups can be taken to represent all of society or can help formulate goals for a police organisation, particularly for different demographic areas, has been proven in political terms to distort the pubic agenda. Theoretically, structure follows strategy, CPR provides answers to these questions.

Implementation

To argue that if the strategy and the structure of an organisation is right, we would automatically provide an excellent police service is questionable. Another factor that must be considered is the role of management in the organisation. To argue that senior management have drawn up an excellent policing plan and that is the end of the process requires consideration. Management must now skill up their staff and put systems in place to facilitate the implementation of the plan because staff are essential components of any strategic initiative.

The Garda organisation traditionally has placed managers in charge of particular geographic areas with a bureaucratic role, rather than a more functional focus. If x function is reliant on the factor of production then management orientation should be one of the factors of production. In other words management must be in charge of x functionality.

Management itself should develop, mentor and indoctrinate the idea of achieving the goals of the policing plan, which should at all times set the operational policing agenda and should be constantly reviewing progress. The view that a function rests with a particular rank is in the author's view outdated, modern management approaches should focus on x via the factors of production. An Garda Síochána is ideally situated for this

purpose as all members come in to the organisation as trainees and work their way up the promotional ladder towards senior management positions.

The advantage of this approach is four fold.

- Firstly it imparts ownership of and focus on the policing plan back to staff, as they are actively involved in its development and implementation. To implement a policing plan by other means is difficult as it may have no meaning for staff. However if ownership is evident in the actions and deeds of management then ownership takes place for staff.
- Secondly, it motivates staff to achieve the objectives of the plan in that they see senior staff committed to the policing aims.
- Thirdly, it introduces an element of supervision and discipline to the work at hand.
- Fourthly, it brings about a mindset change in staff, if they expect to see senior management actively involved it will instil more quality of work and professionalism in the work place.

For management also it allows them to empower and enrich their staff. The premise here is that management are aware of what is happening at ground level and are always in charge.

In these cases both management and staff achieve fulfilment from being part of an organisation which has a clear sense of direction and work satisfaction. Excellent work deserves rewards and there is plenty of scope within the organisation to facilitate this. Promotion, lateral movement, skill attainment and recognition are all factors for consideration.

The issue here is that x is the core production function and the organisation should exist for that purpose and nothing should be allowed to distort this ambition.

Organisational structure

Organisational structure must also be viewed in the light of the primary function x. Structure or activities which do not contribute by way of factors of production to a required level of attainment as benchmarked by research into x as outlined above would have to change. Functionality to x is the key component. X being the primary production function which is formulated by the factors of production. The definition of x will dictate the assessment of the other factors of production.

Decisions on x must be made in consultation with senior management at Divisional level; however the responsibility for its implementation rests with the Divisional Manager. In practice as outlined above, structures would change in the organisational context. Management attention would be refocused on x and other areas of lesser value would be

relinquished by the organisation. Appropriate change management policies would be employed to ensure that organisation stability would not be compromised during transition phases. This sounds good in theory but how would it work in practice.

- Chief Superintendents as Divisional Managers would retain overall responsibility for their Division but duties such as strategy formulation, finance, promotion assessments and discipline etc within certain parameters would be devolved down.

- Superintendents would take a more hands-on approach to operational duties.

- Detective Superintendents would become crime managers.

- Inspectors would focus more on operational issues and would be responsible for the day to day running of their staff i.e. leave, overtime, annual leave.

- Sergeants would spend the majority of their time out with their staff on operational duty.

- Minimal numbers of Gardaí would be employed in stations. Garda stations could be centralised and numbers reduced following the European model.

Measurement

As with all CPR it is necessary for senior management to be able to assess how the primary function is being implemented. Periodic reviews are of limited value and lead to limited progression/improvement over time. Under the changes as outlined above, the core function x will be measurable, therefore Organisational Divisional Benchmarking (ODB) is possible. The advantages of this system, are that ODB helps management and staff to achieve their policing plan goals. ODB should be constructed so that it is viewed as a positive force and constructive in nature.

ODB should be capable of accounting for achievements outside of the policing plan, as police work is unpredictable at best. Individual members who excel would be awarded an annual policing award by the Commissioner.Their achievements would be recognised as a contribution towards their career path. A Division which is deemed by an independent group to have out performed others would be presented by the Commissioner with suitable recognition.

Conclusion

The Garda organisation is now faced with a complex operational environment. The internal and external boundaries of the organisation are being pushed and pulled to such an extent that the structures of the organisation are straining to cope with all the demands. In this article the author has proposed that An Garda Síochána should go back to basics and develop an organisation model which is based upon the critical issue of the primary function of the organisation. In any analysis of the primary function of the organisation the factors of production are vital in their contribution to the primary function. By looking at the factors of productions and how they relate to the primary function it is possible to establish a framework on which to build a new organisational model. The relevance of Core Process Redesign (CPR) is critical to this debate. If a theoretical model is formulated then CPR is the way forward towards strategy, implementation and organisation structure. Back to basics is an important theme of this article. A look at where the Garda organisation is heading into the future, providing a police service to the people of Ireland in the 21st century, should be based on empirically sound research.

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Irish Security Industry Association

GARDA COMMUNITY EXCELLENCE AWARD

The Irish Security Industry Association Awards will again include an award for a member of An Garda Síochána who has provided an outstanding service to the Community.

Nominations are requested for members of the force who make contribution to the community, either nationally or at a local level, which is over and above what would normally be expected of them.

Those nominated may be active in sporting, cultural or social groups either through their membership of An Garda Síochána or in their own time. The activity for which they are nominated may be a once-off event or a regular or on-going activity.

The main criteria is that the person nominated has given voluntarily and unselfishly of their time and energy to help others.

The prize will comprise of an ISIA Medal and a cheque to the value of €1,250. In addition the Winner and partner will be guests at the Presentation Luncheon on Wednesday, 24th November 2005 in Stillorgan Park Hotel, Stillorgan, Co. Dublin.

The closing date for entries: Friday, 30th September 2005

ENTRY FORM

To: **Irish Security Industry Association,**
21, Waterloo Road, Dublin 4. Tel: 01-668 0530

i/We wish to nominate

_____

of _____Garda Station

for the Garda Community Excellence Award 2005.

A detailed submission is attached.

Nominated by: _____ Date: _____/___

Contact address:_____

_____Tel: _____

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