Core Capabilities: Body-worn cameras in Portugal

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Abstract

In the current world situation, which is daily provided with new inputs that increase its complexity, we try to find the correct balance between multiple variables – among those, the duality of liberty and security. Technology shapes the way society is formed and interacts, introducing new challenges for the citizen and also to law enforcement. As so, technology is an external force that has deterministic impacts on organizations, modelling strategies, social actions, and criminal conducts. The discussion in the field of operational and strategic management broadly favours the idea of dynamic capabilities in order to overcome, not only the rigidities of organisational status, but also legal and public understanding. The major question addressed in this paper explores the nature of introducing police body-worn cameras in Polícia de Segurança Pública (PSP) as a tool to improve the interaction between police and citizens. This means assuring its core capabilities. To evaluate how capabilities can overcome the rigidities, the method used in this paper for collecting, analysing, refining and validating the information was the Delphi technique to gathering data for consensus-building concerning the police body-worn cameras. Alongside, with literature, the analysis shows that the respondents of different domains of expertise have a consensual overview on how core capabilities of police body-worn cameras overcome the rigidities and sustains the utilisation as the ultimate core in feeling safe.



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INTRODUCTION

In a metamorphic society, an asymptomatic phenomenon occurs of changes and advances. Following this path security has also evolved in time. The technological advances have become an integral component of work, interaction, and communication. It implies a great effort of administration to be able in keeping in touch with the progress. The understanding of how and when law enforcement forces use technology in order to develop implementation strategies to maintain public order and security is essential.

Since human behaviour tends to improve when there are the notion and probability of getting caught (Ariel, Farrar, & Sutherland, 2015), mechanisms for control are implemented. The police have the task to prosecute the mission of bringing behaviour into line with the norms, rules, and laws. Thus, the mission requires legitimacy, which is a 'property of an authority or institution that leads people to feel that authority or institution is entitled to be deferred to and obeyed' (Sunshine & Tyler, 2003: p. 544).

The police in Portugal is a quasi-military organization with a strong emphasis on command and control (C2). From the structures and processes generated by commanding derives the control to regulate and minimize risks. In a military context, it's a tool for command (Pigeau & McCann, 2000), because the definition and development of who, what and when the decisions and actions are suitable (Verghis, 2008) is clear. It also enables the police to present tailored responses to unique circumstances (Kingshott, 2006) resulting in a more effective intervention to solve problems (Pigeau & McCann, 2000).

The concept of Command has a three-dimensional structure that includes competence, authority, and responsibility (Crabbe, 2000; NATO, 2015; Pigeau & McCann, 2000). On the other hand, control is a system put in practice to assist supervision, synchronisation and monitoring the progress (Balmaks, Kelly & Smith, 2013), maintaining the values of specific elements of the operational environment within the limits established by the command (Alberts & Hayes, 2006).

The two concepts become one, and C2 rather than an option is a necessity (Alberts & Hayes, 2006). It creates the structure and mechanism necessary for legitimising the commander's authority and specific directions for missions and tasks. The effectiveness of C2 is influenced by the different tools applied for monitoring, managing the mission and minimizing the risk of unsatisfying solution (McCann & Pigeau, 1999). Some of the tools are technological, deriving from innovation and evolution of crime patterns.



Actually, innovation is the buzzword in society with associated outcomes of disruption, learning, challenges, and influence in the decision-making process. Raising awareness, and food for thoughts, police body-worn cameras (BWC) is an innovation for Portuguese police. In fact, BWC's may have some benefit in closing the gap between citizen and police.

The operationalisation of this tool is the mainstream and widely used tool in police forces all over the world (e.g.: United Kingdom, Netherlands, Spain, France and Canada). Portugal has a long path to go to achieve the goal mentioned by Flight (2017: p.20) in '10 years all police officers will have body-worn cameras'.

Lum, Koper, Merola, Scherer and Reioux (2015: p. 3) notice that 'BWCs transformed from a technology that received little attention [...] to one that has become rapidly prioritized, funded, and diffused into local policing.' Conciliating this approach with the one proposed by Ariel (2016: p. 8) 'Much like live observers, mirrors, or pictures of eyes, cameras can not only make us continuously conscious of the fact that we are being watched, but also drive us into compliance', the background of BWC is established.

The core capabilities of BWC on law enforcement embodies the agencies with technical, skills, and management instruments to more effective intervention. Coudert, Butin and Métayer (2015), Farrar (2014), Goodall (2007), Grossmith et al. (2015), Miller, Toliver and Police Executive Research Forum (2014), Rankin (2013), and Ready and Young (2015) consider them as a means to: improve the quality of evidence; procedural promptness; effectiveness; deterrence of violent crime; justifying police intervention; reduction of deviant behaviour; increasing arrest activity; improving the police intervention; and enduring the sentence of crime perpetrators. The reduction of complaints is also mentioned by some authors as a result of BWC implementation (Ariel et al., 2017). Ariel et al. (2015), Farrar and Ariel (2013), Grossmith et al. (2015), Hayes and Ericson (2012), Katz et al. (2014, 2015) add to this list the improvement in the relation between police and citizen's. Ellis, Jenkins and Smith (2015), state that public opinion changes from a negative perspective to a more positive one to police forces, and there's a reduction of complaints against the police and, of behaviour of-course towards the police.

Moreover,

'If cameras are expected to influence behaviour and serve as cues that social norms or legal rules must be followed, then the cue "dosage" of awareness must be high. Mobile cameras, and specifically body-worn-cameras, are likely to have this effect. (Ariel et al., 2015: pp.20-21).

The downside of the BWC, the core rigidities, that has to be overcome, concerns aspects such as the liberty and citizen's rights personified by the duty to inform and consent,



the time and content of recording, the storage and the access to the recording and, the threats posed for forthcoming technologies (Coudert, Butin & Métayer, 2015, Goodall, 2007).

Given the evidence from the research, the notion of what is a desirable, preferred or ideal in operationalisation, the pattern of choice, the allocation of resources and technological tools, the rate of implementation, the legal and strategic distribution of competences and, the outcomes are the critical elements of BWC.

METHOD

General Remarks and Hypothesis

The present study was based in the conceptual model (Figure 2), that demystifies the connections among the constructs. The research question centred on the evaluation of the consensus concerning the BWC: i) the level of support for the implementation; ii) measure the level of sense of security in the scenario of implementation; iii) perceptions of the pros and cons of the programme; and, iv) evaluate the capacity of BWC in C2 dimension.

Age
Academic Qualifications
Gender

Knowledge

Instrumentalisation

Felling of security

Operational Legal

C2 Tool

Prevention Effective

Figure 1 – Conceptual Model

Valente (2009) suggested that 'Talk about the police – defence of democratic legality, fundamental rights and liberties of citizens, in order to ensure the collective and security well-being – raises the question of the violation of those rights, when it intervenes to remedy an affected good, and mainly when police acts feeling «society scum»' (p.47). Valente reveals the complexity of the police role.

Linking the conceptual model and the previous statement, BWC are the tool to bring more suitability and precision in police interventions, helping to mitigate the potential factors of harmful interfaces with the public.

Drawing on the conclusions of Coudert et al. (2015) and Ellis et al. (2015), about the positive perception of the impact of BWC on citizens and police, we identified the first hypothesis:

H₁: The public and the police actors believe in the benefits of the implementation of the BWC;

Ellis et al. (2015), Farrar (2014), Goodall (2007), Miller et al. (2014), and White (2014) suggested benefits for police accountability, leading to the following hypothesis:

H₃: BWC gives more transparency to police intervention.

BWC allows the gathering of total information of the incident (Ellis et al., 2015; Goodall, 2007; Katz, et al., 2014; Miller et al., 2014; Rankin, 2013; White, 2014), hence the third hypothesis is:

H₃: BWC result in a more effective of gathering evidence.

Goodall (2007) mentions the necessity of criteria concerning when to record, to avoid of constant recording police shifts. The permanent recording would make the implementation of BWC unfeasible, because the volume of storage needs for the information. For this reason, we list the fourth hypothesis:

 $\mathrm{H_{4}\!:}$ The recording should be for pre-determined interactions between police and public.

Even though, literature points out differences in the predictors of the conduct of citizens and police officers before and after the implementation of BWC, we centred the focus on how this tool can affect deviant behaviour (Coudert et al., 2015; Goodall, 2007; Rankin, 2013; White, 2014) with the following hypothesis:



H_c: Body worn cameras are a deterrence of deviant behaviour.

At last, we raise the pertinent perspective studied by Ariel et al. (2015), that made the balance between cost implementation and benefits, ensuring which variable is more meaningful:

H₆: Potential benefits of BWC for society overcome the financial cost of the investment.

Method

The level and interlinked consensus between questions for introduction, utilization, implementation rules and advantages are the main focus of the analysis. For this purpose, the method for gathering data from respondents within their domain of expertise was applied to determine the scientific and epistemological characteristics of the investigation, within an exploratory, descriptive and correlational approach.

The Delphi technique was applied to a panel of experts in various fields to achieve convergence of opinion concerning BWC in Portugal. This is a topic of strategic management, making the planning, assessment, police determination, resource utilisation and decision-making a fundamental subject, that must be grounded in fundamental basis and virtues of the context (Loo, 2002; Okoli & Pawlowski, 2004).

Considering, the dimension of the group, the lack of information about the substance of the matter, and the heterogeneity of backgrounds (academic, professional, ideological, etc.), the technique chosen is adjusted (Thomson & Ponder, 1979) for consensus-building. The baseline of the method is: anonymity; interaction with feedback; statistical analysis; effective utilization of the expert's time; and, convergence of responses (Dalkey et al., 1969; Renzi & Freitas, 2015).

We used a wide range of different experts from across the economic, legal, police, social dimensions, in order to enhance the validity and reliability of the conclusions (Hsu & Sanford, 2007). The above-mentioned heterogeneity consolidates the multidisciplinary of the panel, allowing predictive consensus of major validity.

The questions were framed from previous experiences, based in literature review, police reports and data from empirical international observation.

Corpus

The data was recollected by a questionnaire sent to the panel comprised of experts of several areas: police, economic, law, social and sociological, psychological, and those engaged in public affairs, namely journalists and deputies in the Assembly of the Republic.



There were a total of 60 informants, composed by 60% of males and 40% of females, with a mean of 43 years and standard deviation of 2,080, ranging from 24 to 71 years old. The majority is married and had a University Degree (67%).

Procedures

According to the objectives, the problem and hypothesis must combine a correct choice of instruments to finalize de operationalisation of the study (Fortin, Côte & Filion, 2009).

The data was gathered by an online form via a hyperlink on google docs. The questionnaire was in a structured format which allowed the data to be extracted for subsequent analysis. The response rate to the questionnaire was superior at 90%. Respondents were asked to grade the statements by reference to a Likert inverted scale from 1 (completely agree) to 5 (Completely disagree). The threshold for judging that there was agreement amongst the whole sample was assessed to be where the mean of the total respondent scoring was equal or lower than 3, and if 50% of the topics received the majority of the votes (Fink, et al., 1984).

The questionnaire included socio-demographic data, the objectives and consent form, and the questions concerning the BWC, with multiple choice answers, yes or no options, and others in inverted Likert scale.

We analysed data using Statistical Program for Social Sciences for Windows (SPSS, Inc. EUA), version 24, and Excel 2017 (Microsoft Corporation). The level of confidence was p £0,05. Differences between groups were compared using Mann Whitney U and Kruskal Wallis H test

RESULTS

From the panel, 52% of them had the knowledge of body-worn cameras, therefore, the results will be also evaluated according this characteristic.

The presentation of the results begins with all the questions that were consensual, according to the criteria established.

The questions with higher level of agreement were: i) "Do you agree with the utilisation of police body-worn cameras?"; ii) "Do you feel safer if the PSP with the implementation of this tool?"; iii) "Do you agree that this tool can contribute to prevent crimes or deviant behaviour of citizens?"; iv) "Do you agree that this tool can contribute to prevent crimes or deviant behaviour of police?". In fact, every question has a mean and median appropriate



(mean = 1,45; 1,83; 1,72; 1,69; median = 1; 2; 2; 2, correspondingly) and, a positive approach above 70% in each question.

On the questions relating to the use of BWCs, the respondents felt that BWC is of added value and increases the level of confidence towards police, which is consistent with international studies (e.g.: Ariel et al., 2014). This general support needs to be qualified by the well-recognised concerns about the potential for BWCs to compromise privacy rights.

On the issues of the perception of safety (Jones, 2016), the prevention of deviant behaviour of citizens or police officers (Coudert et al., 2015), the respondents believed that the cameras might have a positive influence in behaviour when their actions are being scrutinised by a camera.

Applying cumulative criteria (mean = 3,24 and median = 3) there was also a consensus in the questions aiming to know if the police officer should decide which occurrences should be taped and if the tape should always be running (central tendency: "Neither agree nor disagree"). This might be due to the characteristics of the participants: the majority were not police officers. A second consideration appeared to be the data storage capacity that it would be required for recording 24-7 (twenty-four hours a day, seven days a week).

From the analysis of these questions it is clear that the police alone should not be left to decide when to record. In other words, there is a need of a guideline or norm defining how and when to record. In developing such guidance, it is important to take account of the questions about privacy of the actors, balanced against the issue of public protection (Jones, 2016, Stanley, 2013).

In respect of the Portuguese legal framework, the question "Do you consider that the legal framework is adjusted for the recording images by the Security and Police Forces?", there was no consensus (mean = 3,69). The appropriateness of the legal framework was considered to be a handicap in the process. It was perceived to be problematic for the security and police force, evidenced by the difficulty in obtaining images even with the use of drones. The current framework suggests a profound distrust in the law enforcement organisations. Yet, citizens are able to record any police action and share it in media, television, or in other way, without suffering any forfeit, unless there is a claim of the public.

The Portuguese legal framework appears to be at odds with the international trends. The evidence suggests that there may be significant benefits from the visualization of images, not only for increasing the perception of safety, but also by justifying or not justifying some of police use-of-force (Cullhane, Boman, & Schweitzer, 2016; Cullhane, Schweitzer, 2017).



Only 35% of the respondents remembered and pointed out situations with potential suitability for BWC. The value is in compliance with the expert's level of awareness. The lack of knowledge associated with the resistance to change is more likely to take the reality as ominous.

The respondents felt that BWCs are an important means for the collection of evidence (71,4%), in the defence of unjust accusations (52,4%) and identifying persons of interest (50%). Hence, the areas of intervention for the cameras are: i) identification of suspects (75%); ii) fact finding and conclusive proof (63,30%); iii) reducing complaints against the police (35%) and, iv) reducing assaults against law enforcement. These findings are consistent with the literature (Coudert et al., 2015; Ellis et al, 2015; Smykla, Crow, Crichlow, & Snyder, 2016). This might be the result of police background and the involvement and knowledge of situations where the cameras would have been a leverage for law enforcement and as social enlighten.

There is also a consistent thread on prevention, the perception of security, the accountability (police and citizens) which is supported by authors such as Ariel et al. (2014), Coudert et al. (2015), Ellis et al. (2015), Goodall (2007), Jones (2016), Katz et al. (2014), Miller et al. (2014) and Smykla, Crow, Crichlow, and Snyder (2016). In fact, cameras may provide a form of capable guardianship which may discourage overt misconduct when the cameras are

There was less consensus as to who might be able to access to video and audio recording. The range of results between Criminal Justice Judge, Public Prosecutor, and person with access clearance suggested a lower common denominator of a "person granted with personnel security clearance".

Last but not least, the respondents felt that BWCs were cost effective. They considered that BWC, in the long run, could reduce the costs associated with administrative, corrective and legal processes. This matches the results obtained by Flight (2017) and in line with investigations in United Kingdom made by Moreton (2017). The studies showed that in post implementation there were fewer but stronger charges, an increase of severity of sentences, the reduction of offenders pleading guilty, and early pleas and swift and better justice. Miller et al. (2015: p. 3) points out that 'this quicker resolution [using body-worn camera footage to review and address the officer's actions] can help save agencies time and money that they would otherwise spend investigating complaints and defending against lawsuits'.

Summing it up, in the sense that the respondents agree with the utilization of BWC by law enforcement in Portugal they pointed out the main capabilities of this technological tool. The ultimate core capabilities are the feeling of security, that follows the path of



international literature and the main elements associated such as: crime and illicit behaviour prevention of potential offenders; deterrence of violent crime; crime and illicit behaviour prevention of police and law enforcement personnel; evidence in criminal proceeding and for the defence against unfair accusations; suspect identification.

There are some wider issues with regards to the implementation of the technology in the field: what to record (event, daily intervention, work shift, among other)? When is appropriate or relevant to record? Who decides what and when to record?

We also looked to see if there were any differences between the groups by gender, academic qualifications and knowledge of BWC. For this purpose, considering the types of variables, and that the assumptions of normality (p-value £ 0,05) and symmetry (AS > 0) were not met, the Kruskall-Wallis (H test) and Mann-Whitney (U test) was applied (Norman, Randall, & Hornsby, 1990; Pestana & Gajeiro, 2014).



Table 1 – Mann-Whitney (U test) and Kruskall-Wallis Test (H test)

Questions	Gender		Knowledge of BWC		Academic Qualifications	
	U	sig	U	sig	Н	sig
Do you agree with the utilisation of police body-worn cameras?	385,500	,458	399,500	,434	4,577	,205
Do you agree that the police officer would decide what occurrence should be recorded, during the work shift?	343,000	,168	436,500	,843	1,053	,788
Do you feel safer with the implementation of this tool in the PSP?	402,000	,635	416,000	,603	,451	,929
Do you agree that this tool can contribute to prevent crimes or deviant behaviour of citizens?	431,000	,987	422,500	,669	,398	,941
Do you agree that this tool can contribute to prevent crimes or deviant behaviour of police?	399,000	,593	432,000	,781	,538	,911
Do you consider the present legal framework for video and audio recording by Police and Law enforcement adequate?	214,500	,001*	224,000	,001*	3,949	,267
Do you think that all work shift should be recorded?	317,000	,076	365,500	,203	7,267	,064
Do you remember of any police oc- currence that the cameras would have helped in the evidence gathering?	344,000	,165	255,000	,003*	6,353	,096
In case of affirmative answer to the previous question, in which way do you consider the cameras would help to in fact finding?	195,000	,816	208,000	1,000	4,598	,204
In which areas do BWC may help?	358,000	,195	448,500	,987	,324	,955
Who should have access to the recordings?	403,500	,656	443,000	,921	7,021	,071

Note: * statistical significant at 0,05



The respondents in the panel considered that, overall, BWCs are a good tool to be applied in Portugal: in particular, the black box functions such as prevention (before the action), real-time monitoring (during) and evidence (after) (Flight, 2017). As an evidence management system, in a world where crime and social deviance are as real and common as the forces at these variables intend to prevent and correct, BWCs may be an effective tool to implement correct and adequate control of the predictors of misconducts. It is also a tool for decision-making in terms of C2 purposes, adding transparency, positive control of police intervention, just decisions, improving patterns of use of force, and quality of police work (McCann & Pigeau, 1999).

As Rego and Cunha (2007) suggest, there is a significant requirement for leadership in the change process. As Smykla et al. (2015: p.440) state:

Further support by command staff could help with officers that are unsure or more negative toward the use of BWCs. Finally, having command support during policy development and the planning of implementation of BWCs could potentially ease concerns of officers. Command staff input on issues of privacy, footage use, data management, and when cameras should be used is important when attempting to balance officer and public concerns. '

CONCLUSION

The ever-increasing growth of technology, the large amount of inputs influences on how State's should face its duty: guarantee citizen's safety. The foundations for BWC utility are rooted in the leverage of its dynamic capabilities to improve police action and social acceptance. Extrapolating European trends, the introduction of BWC might be expected to enhance trust in police and citizen interaction. The underpinning of this argument is that experiences in law enforcement across Europe, United States, presented positive results. The implementation of BWCs represents a step forward in Portuguese law enforcement. The add-value of BWC is sustained by its pervasive positive influence, enhanced by the core capabilities. The objective is that capabilities are not hampered by the rigidities (legal, operational) of the technology. The results fundaments the strategic power of introducing the technology, considering the experiences in other countries, alongside the expert's panel.

The findings of this study shed light on the benefits of BWC for law enforcement. The five hypotheses are attained conveying the exposed by international literature and the findings from the survey. We found that BWC are beneficial (Coudert et al., 2015; Ellis et al., 2015), improve transparency (Ellis et al., 2015; Farrar, 2014; Goodall, 2007; Miller et al., 2014; and White, 2014), allows evidence gathering or collection of evidence for proof (Ellis et al., 2015; Goodall,



2007; Katz, et al., 2014; Miller et al., 2014; Rankin, 2013; White, 2014), prevents deviant behavior or behavior that is off-course (Coudert et al., 2015; Goodall, 2007; Rankin, 2013; White, 2014). The suggestions mount up to a tier concept, Feeling safe! This paramount's to a idea presented by Tzu (2012) that mentions to fight and conquer in all your battles is not supreme excellence; supreme excellence consists in breaking the enemy's resistance without fighting.

Some limitations were encountered in the research. One of the limitations of this study involves the sample. Despite the experts were chosen by dimensions (legal, police, sociological, economic), the analysis is oblivious of that fact. Another issue relevant to this research is that there was only one round when it should have been at least two. However, the responses were consensual, allowing the researchers to use the data. Finally, it's difficult to isolate and overcome the legal hindrances of this topic.

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