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CRISIS AND DISRUPTION COMMUNICATIONS MANAGEMENT IN THE AIRPORTS SECTOR: THE EFFECTIVE USE OF SOCIAL MEDIA

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ABSTRACT

Although the use of social media within the airport industry is not a new practice, there are still varying degrees of real and perceived concerns around how to best deliver positive rather than negative user engagement and experiences through social media platforms. This perceived risk becomes particularly apparent during times of significant airport operational disruption and crisis. Using an airport user questionnaire (in Portugal) and operational expert interviews (in the UK), this study aimed to determine the ways in which airport use of social media platforms should be integrated into overall airport crisis and disruption management strategies. This led to an evidence-based template communications flow model for airport operations managers and their communications teams to help ensure common and consistent messaging, positive user engagement/experiences, and reduced business fallout from significant disruption and crises. Future research should seek to test the usefulness of specific communications and social media guidance that airports use internally to determine if they are consistent with the different user preferences by crisis typology as detailed in this study.

KEYWORDS

Communications management; Airport crisis management; Airport disruption management; Social media communications

1. INTRODUCTION

Nowadays organizations cannot ignore the new capabilities that social and digital technologies can provide and it has become a fundamental tool for company communications with their customers. Over time, it has become a preferred channel for the dissemination of information.

Previous studies (e.g. Piedade, 2017) have demonstrated how organizations are managing and monitoring the use of social and digital technologies within the context of crisis management. The fast paced and dynamic aviation sector has also come to rely heavily on effective communication platforms to engage and connect with consumers in a timely fashion. The unexpected and seemingly random nature of crisis and disruption occurrences within airlines and airports pose a unique challenge to aviation operators driving the need to undertake more comprehensive research into the management of these crises and disruptions and the all-important communications. According to EASA, the number of reported accidents and serious incidents within European aerodromes increased from 44 in 2015 to 68 in 2019, further highlighting the increased prevalence of these occurrences and the increased need to actively manage them from a communications perspective (EASA, 2020).

With the proliferation of new digital technologies, crisis communication has become more important than ever. These platforms can help or hinder organizations, depending on how they are managed and integrated into communications strategies (Roshan et al. 2016). Monitoring and having constant oversight of them can provide some degree of control to the organization of its image and reputation in the context of how disruptions and crises have been dealt with.

This paradigm shift is the result of today's globalized world, where information circulates much more rapidly, and where the receipt of inaccurate or incomplete information can contribute to changed attitudes and behaviours. With the establishment of this new paradigm, social networks have transformed the way that people and organizations communicate with each other by allowing the sharing of information in real time, resulting in a change in the form and speed of access to information and knowledge, along with interactions between people, which has been found to be particularly relevant in reducing anxieties around unplanned transportation disruptions (Pender et al. 2014).

Applications of the usefulness of social media within overall crisis communications at airports specifically remains scarce, however.

This paper aims to better understand how aviation organizations, and more specifically airports, generally manage their communications during crises and major disruptions including the integration of social media channels into these communications so that they can help rather than hinder airport operators in their quest to manage crises effectively and resume normal operations as quickly as possible. The aim was supported by objectives to gather empirical evidence from aviation operations experts through in-depth interviews conducted in the UK, and through carrying out a questionnaire with a sample of airport users in Portugal on their social media communication preferences.

The remaining sections of the paper are broken down as follows: Section 2 details the literature on the management of communications during crises and major disruptions, Section 3 summarizes the selected methodology for the empirical stage of the research, Section 4 presents the expert interview and airport user questionnaire results while Section 5 synthesizes the results into an overall discussion. Finally, Section 6 draws some conclusions and managerial implications.

2. LITERATURE REVIEW

A crisis is a phenomenon that affects the normal functioning of an organization's activities and generates a significant threat to it, which can jeopardize its relationship and positioning with its customer; as well as its ability to continue providing products and services. In addition to affecting the image and reputation of an organization, its various stakeholders and associated suppliers are also heavily implicated; often representing a threat to the organization's very survival (Fearn-Banks, 2011).

Traditionally, communication professionals' main management concern was how to manage information exchange processes with mainstream media, such as the press, radio and television stations. Today, companies are faced with a multiplicity of communication channels leading to new challenges arising in the field of communications. It is within this context that digital media has appeared as a tool to enhance the timeliness and reach of messages and create new forms of communication that allow

consumers to instantly convey their opinions and share their experiences in an interactive way with other users (Coombs and Holladay, 2012).

In crisis and major disruption communications there has always been a so-called "golden hour", after which it was crucial that there was organizational dissemination of information about a crisis. Nowadays, businesses only have a few "golden minutes" until the public can get hold of information (Fearn-Banks, 2011). The accuracy and completeness of this instant information is often partial, and it can be misleading further increasing the need for organizations to put out official communications almost immediately even whilst events are unfolding, and the establishment of the facts is incomplete. The alternative is an information void, which can be easily and quickly filled with potentially damaging rumors and speculation.

Personalized, segmented, interactive, multi-channel and instantaneous requirements have not only introduced new forms of communications, but have also created greater complexity in the communications process, making it fundamental to monitor the opinions and expectations of various audiences in order to make the necessary stakeholder improvements (Qualman, 2009). In this transformational communications context, driven by the emergence of so-called individual network technologies, new and complex problems have arisen as well as opportunities that affect entire communications management processes in the context of crises and major disruptions (Rainie and Welmann, 2012).

The causes of crises can be a very wide in origin. There is a set of common reasons, however, that seem to be of greater relevance in the emergence of problematic situations (Lampreia, 2003); examples include human error, technical breakdowns, labour restructuring and dismissals, debatable financial and commercial practices, lack of internal communications, external events and attacks, and natural disasters.

Organizational communication consists of a company's relationship with its internal and external audiences, involving a set of procedures and techniques aimed at achieving clear and helpful communications and the dissemination of information on situations, results, missions, objectives, goals, projects, processes, standards, procedures, and instructions (Matos, 2004). Currently, the role of communications is to support a well-structured management model with the capacity to assist companies through

increasingly competitive challenges, in a society that has become more demanding in quality and rights (Cardoso, 2006).

According to Rainie and Wellman (2012), current digital platforms are still far from realizing their full potential. They do, however, represent an evolution from previous trajectories. It is up to each organization, within the scope of its activities to try and anticipate the best way to deal with crises before they happen. Therefore, one of the more important aspects for resolving a crisis, at the right time, is the timing of intervention in an emergency or high disruption situation, as well as the level of urgency shown in giving an immediate response (Lampreia, 2007).

Eriksson (2018) found that effective crisis communications attempt to use the full potential of social media to create a dialogue by choosing the right messages, sources and time allocation for it. It was further noted, however, that it is necessary to monitor social media and continue to prioritize traditional media in crisis situations. It was also found that the use of social media for monitoring has increased significantly over recent years and is an indication that monitoring and big data are a rapidly growing area of research in crisis communications (Eriksson, 2018).

According to Wang et al., (2020), from a cost/benefit perspective, the interaction between companies and a large heterogeneous group of stakeholders in crisis communications gives a credible insight into effective future strategy choices adopted by the company as internet user behaviour continues to evolve. The company must choose a strategy in line with the degree of responsibility for the crisis event, bearing in mind, however, that internet users do not necessarily respond to the actions of companies based on the correct allocation of responsibilities.

Wang et al., (2020) reminds communication strategists of the importance of caution when responding to the public. An active response is needed, but the crisis manager will be confronted with complex expressions of public opinion, A balanced, fact-based response is desirable therefore to discourage a cycle of emotive, unsubstantiated responses. Companies must take measures to know when to stimulate or avoid social discussion related to different forms of crisis communications, to influence the public to change their opinions and actions (Wang et al., 2020).

It is in an airport's Crisis Communication Plan (Delgado, 2018), that all steps for external communications are detailed. Internal communications are also included for the benefit of workers not critical to the operation. This plan defines the responsibilities and actions for information flow management regardless of the type of occurrence. The general objectives of this plan are as follows: map as many situations as possible in order to guarantee measures that will ensure a timely response to all audiences affected by the occurrence in order of priority; ensure that all levels of management have sufficient information to implement and maintain an effective crisis management system; define the main management roles within the Communications Department; and establish protocols with the communication areas of all stakeholders identified in the Contingency Plan and Emergency Plan in order to ensure greater efficiency in the coordination of information provided to the media and the public.

The Crisis Communications Plan also has operational objectives, namely: to avoid additional operational constraints; to control passenger flows and agglomeration; and to guarantee the continuity of operations with or without constraints (even with calculated constraints, reliable information must be updated and forwarded to all interested parties to reassure stakeholders and users). Finally, it is necessary not only to inform all interested parties and users but also to monitor the organization's feedback and ongoing reputation.

The Crisis Communications Plan deals with two different aspects; an organization's own communication procedures appropriate to situations arising; and the generation of contingency/emergency plans inclusive of associated communications. The Emergency Plan for Airports (Delgado, 2012) defines the sequence of actions of that must be taken to control each of the possible emergency situations that can occur at an Airport or in its vicinity. To enable its effective implementation, it was necessary to define basic and fundamental aspects such as the training of personnel and the maintenance of operations. IROPS (Irregular Operations) are defined as exceptional events that require actions or training in addition to that normally practiced during normal operations by aviation service providers, which impact passengers and other users, often for undetermined periods of time.

A Contingency Plan (2018) aims to minimize the impact that disruptive events and operational irregularities may have for passengers/users and be used as a repository in

case of experiencing a variety of different occurrences. These plans integrate the procedures of each response team partner, as well as the expected interactions between them, when applicable, inclusive of the management of communications to internal and external audiences. There is currently a dearth of specific guidance in relation to the effective use of social media, however, within the aforementioned crisis, emergency and contingency airport plans, with a lack of associated academic literature on the specific application of social media communication guidelines in airport crises and heavy disruptions (ACRP Report 65, 2012).

3. METHODOLOGY

This work followed a research design that was divided into several stages: Literature reviewing, collection of empirical user and expert data in the form of open-ended, face-to-face expert interviews and an online user questionnaire. The reporting, analysis and integration of the data from the two separate methods were triangulated against current knowledge of existing good practice. Together these processes formed the validation process for a refreshed communications model that incorporated the effective use of social media in crisis, emergency, and contingency situations.

The selection criteria for the expert interviewees were that each participant was required to be an aviation operations professional with significant crisis and disruption management experience both in the United Kingdom and internationally and that they are familiar with the effective use (or lack of) of social media management systems within their respective aviation organizations. It was also important that each interviewee is knowledgeable about the interaction between different aviation stakeholders within an airport crisis or disruption context.

Each expert interviewee was asked several questions to understand what their organization's approach to crisis communications was and where possible, with some explanatory examples. Open ended questions designed to assess the quality of management and communications systems in place were prioritized, incorporating the role social media played in the way the company dealt with large disruptions. Finally, the interviewees were asked to give their view on a base airport crisis and communications flow model (see Figure 8), and comment on how social media communications management could best be incorporated into it and on its overall applicability to their

own respective organizational crisis management protocol.

The airport user questionnaire was designed to gauge passenger opinions and engagement with social media and other communications methods in general but more specifically in relation to major airport disruptions and crises should they take place. A sample of Portuguese travellers was sampled in January 2019 being selected randomly by being available to the general public. The questionnaire was completed online within google forms. The questions themselves were split into attribute/demographic questions and substantive questions on traveller use and engagement with social media channels. The number of responses was thirty-nine with a response rate of 78%. Although small, several questions generated some quite significant consensus amongst the respondents, adding weight to the importance of the questionnaire findings.

4. EXPERT INTERVIEW AND QUESTIONNAIRE RESULTS

The two in-depth expert interviews were carried out in November 2019 with Mark Gardiner, Duty Manager at British Airways based out of LHR and Ultan Kenny, Senior Director Operations, Kenyon International Emergency Services, having also held senior operations positions at Dubai International Airport and Emirates Airline. The interviews were open ended to give the participants the maximum opportunity to discuss their experiences and expertise both in airport crisis communications in general and also in how best to incorporate social media into the overall strategy. As such they are reported below in the format in which the conversations developed.

4.1 Expert Interview 1: Mark Gardiner (MG), Duty Manager, British Airways Based at London Heathrow Airport (LHR)

"We have a Crisis Management Framework (CMF), which has guidelines as whether an event sits within Bronze, Silver or Gold in terms of level of severity and seriousness."

Quote 1

"Bronze events are run by the General Operations Manager (GOM), however we do make the CMT (Crisis Management Team Leader) the leader of the event if it escalates to Silver or Gold. It is a conversation between CMT and GOM as to whether Silver or Gold is activated using the CMF guidelines. The CMT normally has to be a Band 1 in seniority

level or above." **Quote 2**

"The CMF is maintained by the Business Resilience team and reviewed on a regular basis, on the back of real-life events and corporate exercises" **Quote 3**

"The Crisis Management Centre (CMC - new name for Operations Control Intelligence Centre - OCIC) is activated in Gold scenarios. It is possible to have Silver and Gold running simultaneously. An example of this was the BA762 emergency landing due to an open engine cowling in May 2013. The Gold level concentrated on dealing with the actual aircraft incident, whilst Silver was dealing with the management and communications of the LHR reduced operations rate, actioned flight cancellations as a result and so on" **Quote 4**

"Heathrow Airport Limited (HAL) also have a Bronze, Silver, Gold equivalent. They have a HAL Airport Operations Manager (AOM) who would escalate issues to their duty Director. In times of BA disruption, we would invite HAL into our CMC if it is LHR related, though they are often not interested if it is overseas. Similarly, if there is an event being managed by HAL in their command structure (e.g. the Ethiopian aircraft fire in July 2013), they normally invite a BA representative to attend as we are the largest player at LHR. This way actions, communications and messaging can be better coordinated". **Quote 5**

"In the event of severe disruption, the GOM works to a set of Global Communications Instructions (GCIs). It is very much like a pyramid effect that a number of other roles, for example, the Operational Control Duty Manager (OCDM) and Operations Controllers have been given particular number to call out in the event of managing a crisis. We also use automated call-outs and text processes with MIR3 (Mass emergency alert software system)." **Quote 6**

"We have internal and external communications that will go out in the event of a "crisis". Our Press Office will draft communications that need approval from the CMT and these will be used to also shape internal communications messages and social media responses". **Quote 7**

"Our Social Media team are in situ 24/7 and like our BA SDM (Security Duty Manager) it monitors posts from internal teams on Facebook, Twitter, etc. As part of our general EG

processes we have guidelines regarding the use of social media on the Intranet. There are no separate guidelines for use during crises and major disruption so the same general guidelines would apply” **Quote 8**

4.2 Expert Interview 2: Ultan Kenny (UK), Senior Director Operations, Kenyon International Emergency Services (Previously with Dubai International Airport/Emirates Airline)

“Response to crises must be both proactive and reactive so that the answer may intake measures to quickly overcome challenges, even more so now that instant information and social networks are involved”. Quote 9

“It is necessary to:

- Identify the communication channels being used
- Repeat the same information in all channels
- Inform parties without details but with an empathy message
- Direct information enquirers to a designated call centre
- Activate crisis cell and monitor all social media activity
- Ensure the integrity off all actors
- All networks should be properly coordinated
- Respond to on-line queries with informative messages,
- Be careful never to allow personal conversations and respond to all messages.”

Quote 10

“In my opinion and based on aviation operations experience over the years the above approach (see Quote 10) is the best way to respond to and deal with a crisis because before crisis managers had a golden hour where we had time to process and analyse the crisis itself. Nowadays with social media we just have a few minutes to deal with the crisis, as it becomes an immediate and interactive process, giving rise to problems in terms of response times”. **Quote 11**

“In the management of crisis communications, there is a need to improve the efficiency of the use of new social technologies to broaden informational content, taking advantage of the resources provided by this new tool, reducing the number of errors in updating the content and improving its effectiveness for the various audiences for which it is intended. In general, for this to happen, additional resources would need to be made available. **Quote 12**

4.3 Questionnaire Results

It is also of interest to understand how social media is being used and perceived by air travellers (case study Portugal), particularly in the event of a major disruption or crisis, to feed this information into airport and aviation company crisis management strategies. It has been designed to gather evidence on how best to embed social media into an airport's strategy and communications policy with a particular emphasis on the role of social media at each stage of a crisis in the eyes of the end user.

4.3.1 Perspective of The Passenger in A Crisis Situation

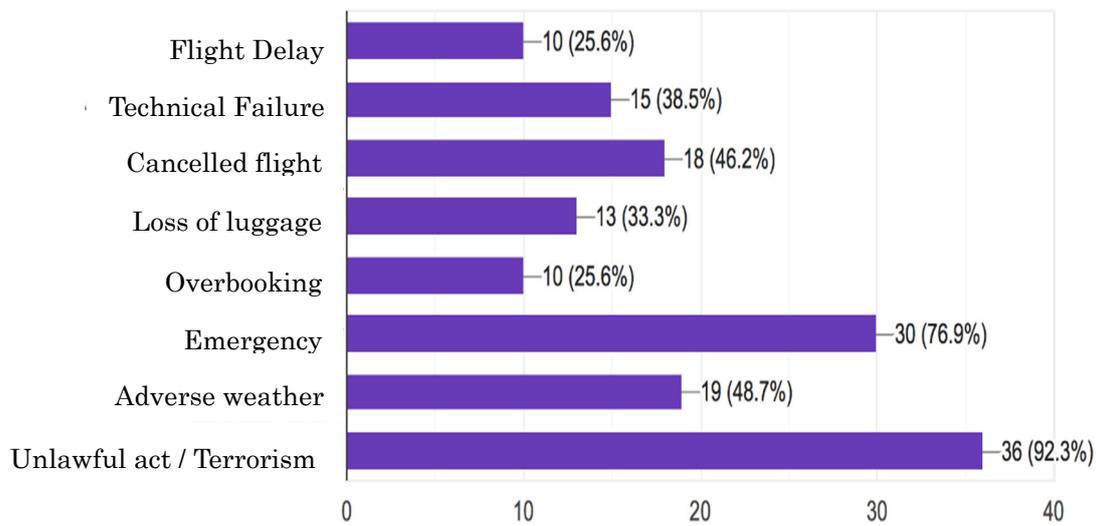
It was first necessary to collect attribute data on the type of passenger respondent namely using age, gender, highest level of qualification, number of trips and whether they have social media network profiles. Respondents were also asked whether they had a loyalty card with an airline.

The results show that, at the time the questionnaire was carried out, the age brackets are diverse but there is a prevalence among young passengers as well as the female gender, with a general college and/or degree level of qualification. When the passengers were questioned about their number of trips, it was found that everyone travelled at least once per year.

All passengers have a profile in at least one of the social networks. It was observed that Instagram (44%) is the most common social network, Facebook (36%) was the second most used and the third was LinkedIn (15%), though it is likely that the demographic profile of the respondents would have influenced the higher prevalence of Instagram over Facebook. There are more passenger respondents who did not have a loyalty card than those that did so combining this with responses on frequency of travel would suggest that the sample were experienced but not highly frequent travellers.

The second part of the questionnaire dealt with the core crisis communications subject, asking a series of questions about the various types of crisis/disruption (significant flight delays, technical failures, cancelled flights, lost luggage, safety issues, urgent overbooking issues, adverse weather conditions and security threats (unlawful act/terrorism)), which are all considered to be crisis/disruption situations at airports.

Figure 1: Select which you consider to be a crisis at an airport?



It was found that the risk of a security threat is the main crisis that was focused upon and the most worrisome, followed by a safety emergency. The other defined typologies were relatively balanced, with flight delays and overbookings being the least considered as a crisis (Figure 1).

When questioned about the level impact of the abovementioned situations, we can note that in situations of flight delays, technical problems, cancellations and overbookings, the impact on the respondents was medium, except for emergency situations, such as a security threat, which was rated as high.

When questioned about how respondents wanted to receive updates about a crisis when set against these perceived levels of risk it was the SMS option that dominated for situations that were ranked as a highly impactful crisis or disruption (Figure 2).

Passenger views on the use of social networks were also obtained and it was found that 56% prefer social networks as a way of communicating in relation to obtaining information and when questioned about the type of information, 69% preferred real time information updates (e.g. flight status etc.). 28% of respondents were in opposition to this, thinking that this type of information should not be given through social networks but would prefer SMS as the preferred platform for this also.

Regarding the type of information that the airport should provide in relation to a crisis, 62% of respondents stated that they were weary of receiving wrong or out of date information, or contradictory and unnecessary information.

Figure 2: Preferred method of communication by situation impact rating
1 (very impactful) to 5 (low impact)

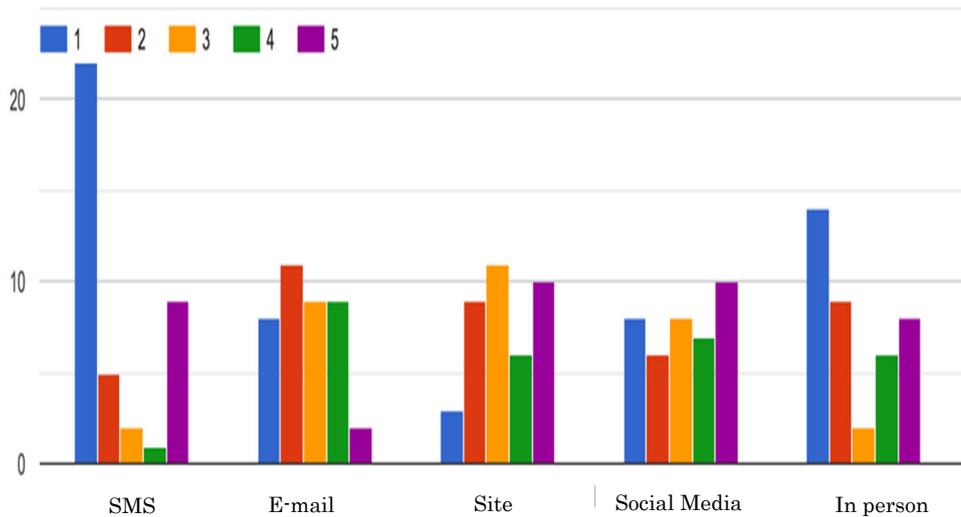
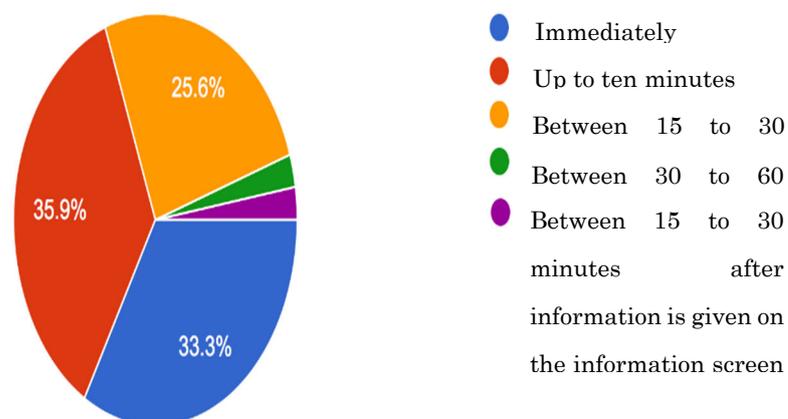


Figure 3: After the occurrence of a crisis, what is the maximum acceptable time for receiving the first information/update?"



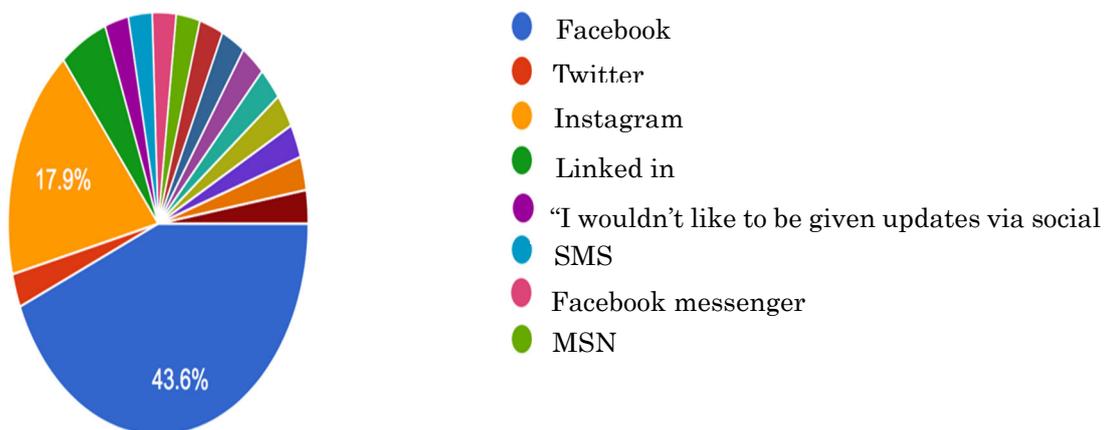
After the occurrence of a crisis, the preferred response time before the first

organizational messages according to the sampled passengers is very close to between immediately and 10 minutes, being able to go to 30 minutes in some cases, giving very little time for aviation organizations to plan their communication responses and eroding the 'golden hour' principal often incorporated into traditional operations training (Figure 3).

In the next phase of the questionnaire, crisis situations were grouped together, and three scenarios were created: -

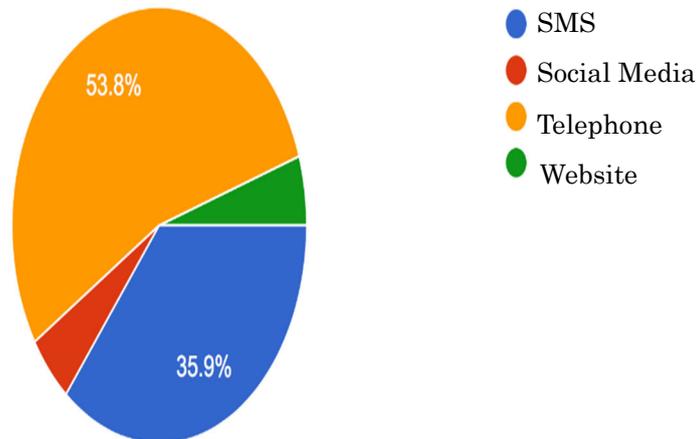
In Scenario 1, passengers were asked if they would like to receive updates on flight-related situations that had the potential to turn into major disruptions through social networks, and the answer was inconclusive as passengers were divided between yes and no almost equally. Among those that answered yes, they preferred to be informed via the social platform Instagram with SMS being the prevalent choice with respect to the remaining respondents (Figure 4).

Figure 4: Since you responded affirmatively to receiving updates during a crisis, which of the following social media channels would you prefer to receive them on?"



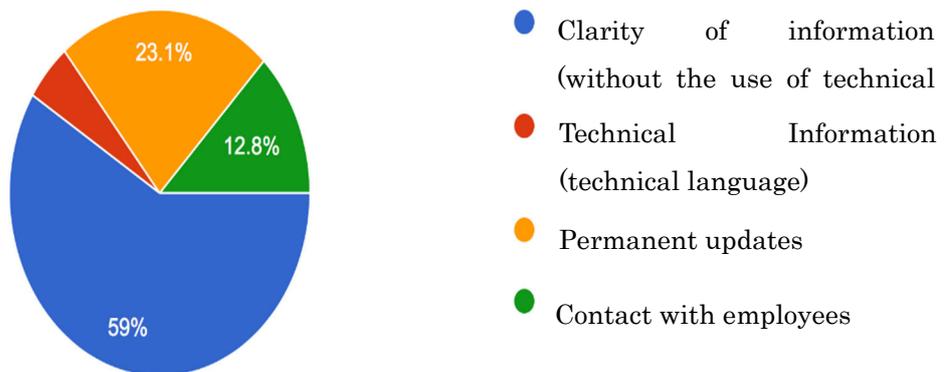
In scenario 2, emergency situations such as illicit acts and technical breakdowns were grouped together, and it was dominant here that the preferred means of communication with family members was for a telephone call (54%) followed by an SMS (36%) as shown in Figure 5. Regarding technical issues passengers were divided between yes and no, when asked about whether social media should be the preferred channel.

Figure 5: In case of emergencies/illegal acts/technical breakdowns, select the media communication to be used with passengers



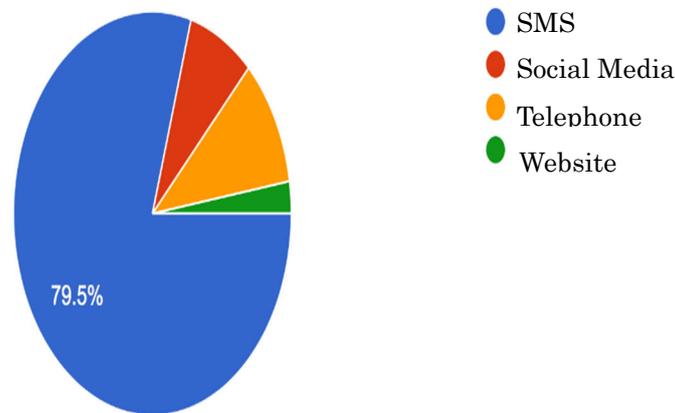
When questioned about the type of communication and language used in a crisis, clarity of information without the use of technical language was cited as most important (59%), followed by continuous updating of information (23%) as shown in Figure 6.

Figure 6: Results from the question: What do you think is of the most importance as part of a communications strategy in crisis situations?



Scenario 3 included adverse weather conditions that give rise to major disruption situations and once again passenger respondents cited SMS as the standout option that works for them with a return of 80% (Figure 7). However, when asked if they want to also be informed in this scenario through social networks, 59% also said yes with Facebook dominating (54%), followed by Instagram.

Figure 7: In case of flights affected by adverse weather conditions, select the best means of communication to use with passengers”



This result would appear to concur with the repeated messaging via multiple platforms recommendation given by Ultan Kenny during the expert interviews (see section 4.2, Quote 10).

5. SYNTHESIZED DISCUSSION OF EMPIRICAL RESULTS

Overall, the sample of airport passengers considered that in a more severe crisis situation such as an emergency, technical breakdown or security threat, communications should be made through SMS and the use of social technologies appears as a popular means of disruption communication when the situation is less burdensome, particularly when events relate to problems with flights such as cancellations, overbookings, lost luggage and to a lesser extent adverse weather conditions. In social media guidance that is developed for operational teams it might be important, therefore, to differentiate the main communications channels by the type of event that is taking place and that if multiple channels are used with repeated messaging, then preferred channels are used for further detail and circular discussions/feedback. This approach would partly concur with the expert interviewee UK given his advice was generic and not broken down as such by different levels of disruption or crisis.

Regarding the use of social networks as a form of communications, passengers are adept at the same, however, they vary in the way they wish to be informed according to the crisis/disruption situation. They also want to be informed accurately and with regularly

updated information in an emergency situation. It is important for airport managers to note that passengers often appear to be unaware of the difficulty and the trade-off between information accuracy and speed and regularity of information delivery. Having a structured set up as detailed out by expert interviewee MG, where roles and responsibilities are clear and information is shared quickly between different aviation actors, could go some way to ensuring that passengers receive the right communications, at the right time and through the right channels.

Passenger respondents were clearly of the view that the value of outdated information was minimal and could sometimes be misleading. Getting the resource requirements right for communications and operations teams to ensure information is always up to date is therefore critical. Ensuring accuracy of information through multiple channels, especially as travellers now expect almost real time and regular updates would point towards a larger communications and PR resource requirement than is typically available at the time this research was undertaken.

Based on a study carried out by Piedade (2017) it is evident that airport organizations favour communications in a crisis that can pass on information to passengers that is correct, concrete, timely, concise and relevant. Considering this, the selection of platforms and successful incorporation of social media with accompanying guidance for users forms a key part of the solution.

The use of social media is a necessary medium due to its general prevalence and usage, especially amongst younger demographics as demonstrated by the questionnaire sample that was more skewed towards a younger demographic. It can be a useful means to connect with passengers in real time and try to overcome the time lag barrier that can happen with other forms of communication. However, the message from the interviewees and respondents is clear, despite their younger demographic - that information through these channels can be no more concise, up-to-date, and accurate during crisis and disruption situations than other channels and that concerns around the public nature of social media, mean that they are also in favour of more traditional communication methods when crises and disruptions become more severe and serious from a personal point of view.

After the grouping of the various crisis situations into typologies, namely by the creation

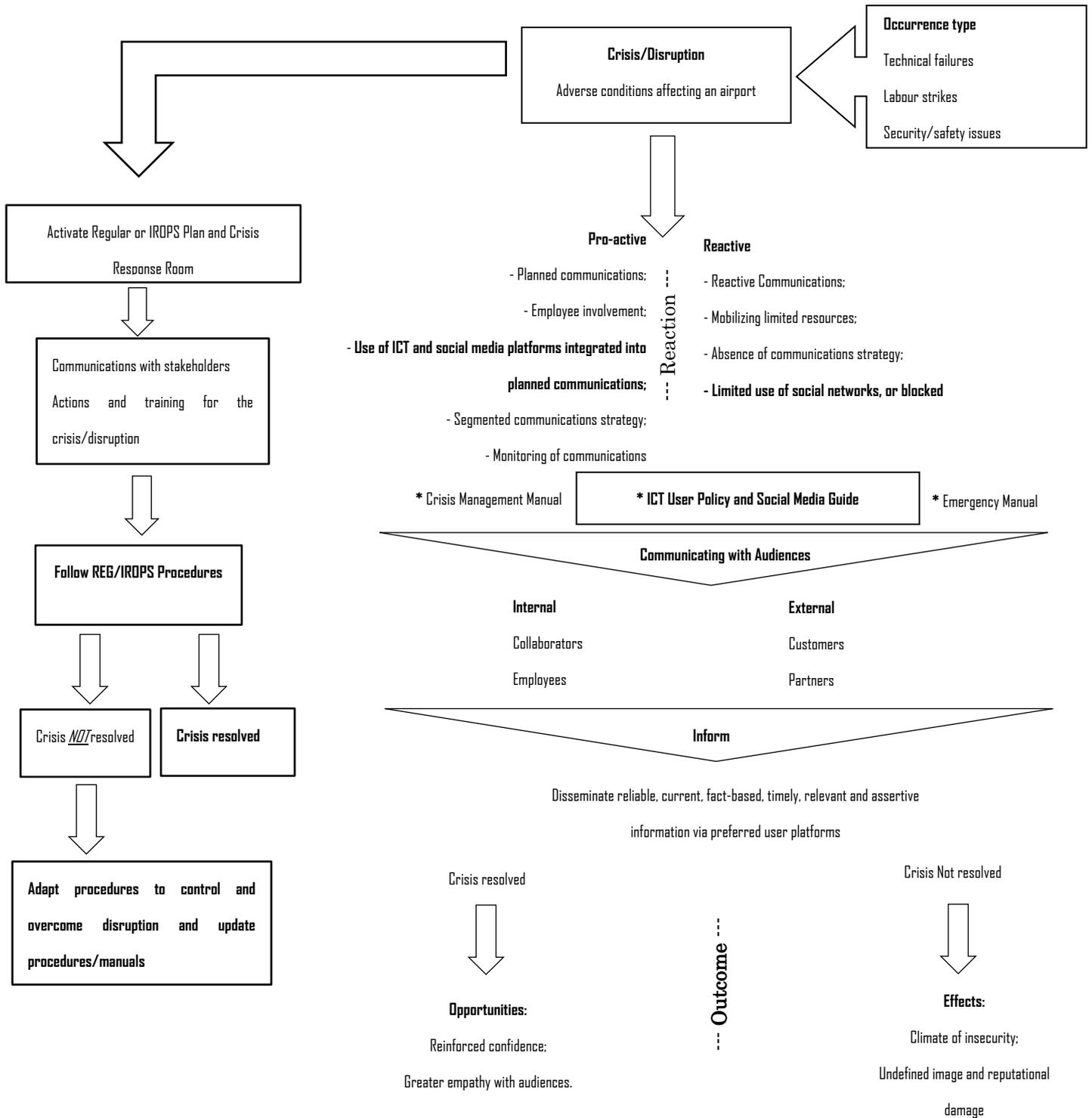
of scenarios, it was possible to arrive at some conclusions that meet the needs of the passengers in relation to what is expected in relation to crisis communications. In the first scenario situations were grouped into those that may trigger moderate crises such as the processing of flights including cancellations, delays, overbooking and loss of luggage among others. In this scenario the use of social media is now fundamental for communications between organizations and passengers.

The two industry experts covered the organizational aspects of managing an airport crisis and detailed out in related communications protocols. MG explained in some detail, the operational and communications processes of a very large international airline often in close co-operation with the airport operator, which can be partly explained by the fact that his airline employer is the largest carrier based at LHR. The importance of timeliness, guidance and structure comes across very clearly and tallies with the communications related wishes of the sample of air passenger respondents.

MG was quite clear that the management of social media communications during crises should fit into a company's wider communications strategy and should be no different to the general guidance and rules offered internally over the Intranet by his company.

UK took a more advisory approach to the open-ended discussion and focused more on setting out a series of ideal steps that an airport should take in any crisis to avoid communications becoming a hindrance rather than a support for those involved either directly or indirectly in an emergency. Consistency of communications, repeated messaging across multiple platforms and the channelling of those who want or need to know more information into one medium being of the utmost importance (a call centre number was mentioned as a popular platform for this). Considering the questionnaire results perhaps more use of SMS to channel more individualized communications may also be an option, particularly during crises, though this would need clear guidance and training for staff who have been hitherto accustomed to having telephone conversations (often recorded for QA purposes). UK also highlighted the importance of empathetic messaging across all other non-personalized platforms that are being employed including through social media platforms.

Figure 8: Crisis & disruption communications model with social media channels embedded



Common themes between passenger respondents in the survey and the industry expert interviewees, were the importance of timeliness and accuracy of information and the employment of multiple platforms. One surprising aspect was that the linking of occurrence typologies to the focus of communications platforms was not mentioned during the expert interviews. Based on the feedback from passenger respondents in this study the merits of varying the use of relevant communication platforms by type of incident (low, medium, or high impact) should form the basis of further research. As it stands these typologies (incident types) are reflected in the below crisis and disruption communications flow map as the starting point of any crisis communications response. An earlier version of the flow diagram based on Piedade (2017) was shown to the expert interviewees and based on feedback a revised version can be found in Figure 8 (incorporating the management of social media platforms into the flow). In the context of the wider literature on the use of social media, this is the first academic contribution specifically focusing on airport operations that seeks to merge social media into crisis and major disruptions communications strategies. Pender et al (2014), though in the context of disrupted urban transport, also found that if social media supplements rather than replaces conventional communications approaches, disrupted travel demand can reduce through enhanced access to real-time information.

6. CONCLUSION AND MANAGEMENT IMPLICATIONS

This research is the first of its kind to use empirical evidence to gauge how airports can effectively incorporate social media into overall communications strategies used during airport crises and major disruptions. The study found both in the passenger questionnaire and the expert interviews that social media platforms were perhaps not appropriate for dealing with the more sensitive issues and high impact occurrences. One expert interviewee mentioned the importance of channelling people through to a call centre for these types of severe subject areas whilst passenger respondents based in Portugal cited a clear preference for SMS messaging when dealing higher impact types of incidents.

It was also found that there is a consensus amongst industry experts and passengers participating in this study as well as in the literature that the timeliness, accuracy, consistency, and language used in crises and major disruption communications are highly important and, in line with the degree of severity of the disruption, the use of empathetic

messaging also becomes critical.

Clearly the findings of this study have management and organizational implications particularly within training and resource functions. The development of clear communications guidelines with social media embedded into them will be important to ensure social media is used to harness the overall response in the eyes of those directly or indirectly affected rather than hinder it. A key finding which warrants further investigation from this study, is the clear preference of communication channels amongst passengers based on the type of incident (low, medium, or high impact).

Further passenger feedback is needed on this topic to understand whether preferred platforms become the 'focus platforms' for more detailed provision of information or whether certain channels would actually need to be avoided altogether (even for provision of basic information) in some cases/incident typologies. The revised crisis and disruption communications flow model can be used as an initial template guide within operational training and human resourcing functions, though clearly it would need to sit above more detailed communications guidance including the appropriate use of social media to include amongst other aspects, a list of easy-to-understand Do's and Don'ts, which can form another useful next step in the research.

In the management of crisis communications, this study has demonstrated that there is a need for airports to improve the efficiency of the use of social media to broaden informational content, taking advantage of the resources provided by real-time social media tools that connect to people's personal devices. To harness communications during crises and disruptions it was found that company use of social media should not be treated separately from the overall communication response plans but instead should be incorporated into the plan to ensure consistency and accuracy of messaging corroborating findings from studies focused on other transport sectors.

There are limitations to the research primarily in relation to the contexts in which the empirical data was collected. Portugal and the UK were taken as a snapshot of the wider picture in Europe but different base locations for passengers and expert interviewees either within Europe or outside Europe may have yielded different experiences and results.

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