

SindhUniv. Res. Jour. (Sci. Ser.) Vol. 52 (01) 01-08 (2020)

http://doi.org/10.26692/sujo/2020.03.01



SINDH UNIVERSITY RESEARCH JOURNAL (SCIENCE SERIES)

Analysis of Facebook contents of Police Department of Pakistan in the context of Good Governance

S. NIZAMANI⁺⁺, K.U.R. KHOUMBATI, I. A. ISMAILI

Institute of Information and Communication Technology, University of Sindh

Received 3rd October 2019 and Revised 2nd March 2020

Abstract:- In the age of globally connected world, media platform and public networks are vital source of enormous data. This data can be very important to gain knowledge from it, which could be advantageous for decision making and future predictions. Facebook is a well-known public network website with millions of active users and millions of posts per day. Government officials of various departments use this as a platform to update people regarding their initiatives. In this paper, the public network data of the police departments of the four provinces of Pakistan is analyzed through data mining, and the services provided by the selected departments are highlighted. The result of this research highlights the major contribution of the police department of Pakistan in terms of good governance. Along with, the common issues which are faced at the various provinces of Pakistan are also highlighted. The findings are verified using valid sources. The results reflect that for studied four provinces of Pakistan, the keywords arrest, accuse and investigation of kidnappers, arm dealers, drug dealers, murderers, robberies and other street crimes are prominent. However, the prominent findings of each province are discussed in results.

Keywords: Facebook, Content Analysis, Data Mining, Good Governance, Police Department, Pakistan

1. <u>INTRODUCTION</u>

Governance is the mechanism of making decisions and policies by which decisions are implemented (ESCAP, 2006). The overall goal of the good governance is that the government organizations must be clear on their responsibilities and must ensure that the citizens receive the quality services from the organization.

Government of Pakistan is responsible to provide the basic infrastructure to its people. Although, government is not a single entity, rather, it constitutes of the number of departments working under its directions. These departments are responsible for allocation, distribution and stabilization of the basic infrastructural needs of the people (Myerson, 2014). Police department is one such example, which works to control the law in order situations of Pakistan.

Pakistan is a strong developing country facing lots of challenges (Awan, 2018; Shah, 2018). It is important to study that at what level the challenges of good governance are met at government and department levels and what are the expectations of the people related to those challenges. People of Pakistan belonging to various age groups, social status, professions use public networks and media platforms at large scale (AlphaPro, 2018).

This study is aimed to analyze Facebook content of thepolice departments of the various provinces of Pakistan in order to highlight social issues faced and tackled by the police departments in terms of good governance. In this regard, the data of police departments of the four provinces of Pakistan is collected, data mining is performed, and highlighted information is presented. This highlighted information represents the main focus of the police departments in action. The validation of highlighted information is also performed through reliable newspapers and articles.

(**Table 1**) provides list official Facebook pages of the police departments of four provinces of Pakistan.

Table 1. Selected Facebook pages of police departments of Pakistan for this study

Province	Facebook page	Link	
Sindh	Sindh Police	@sindhpolicedmc	
Punjab	Punjab Police Pakistan	@PunjabPolicePakistanOfficial	
Balochistan	Balochistan Police	@BalochistanPoliceOfficial	
Khyber Pakhtunkhwa (KPK)	Khyber Pkhtunkhwa Police	@pakhtunkhwapolice	

Numerous studies presented below used online public networks for analysis of good governance, the prediction of

^{**}Corresponding author: saad.nizamani@usindh.edu.pk

elections, evaluation of services provided by the individual departments through online media contents.

Diakopoulos and Shamma (2010) used opinion mining techniques to extract the public opinion on the debate videos regarding America's first presidential contest 2008. As a result of this study various controversial topics were detected.

(Tumasjan *et al.* 2010) adopted sentiment analysis techniques to determine the usage of Twitter in political debates. This study further used mapping procedure to connect the real-life sentiment of people with Twitter opinions regarding political parties and candidates in context of 2009 Germany elections. The outcome of their study is interpreted as the more positive the tweets towards a party, are the more likely they vote for that party in election.

(Livne, et al. 2011) implemented the graph mining and language modeling techniques to analyze the use of Twitter by candidates during midterm election 2010 in US. With this study, a mechanism is built that used the text analysis techniques and hash tags used by candidates of various political parties. Further, the impact of language used by candidates on the election is also analyzed. This study made the correct prediction of the election results only with the help of public network analysis using Twitter.

(Reddick *et al.,.* 2017) used text analysis to take better insight of the public network content of the public service organizations. This study was mainly focusing on the learning the public services of the local government. For, this, a framework was developed that facilitates in analysis of the public online media content. Authors claimed that the framework gives better insight in learning the public services to the government organizations.

(Darwish, 2017) adopted online public network analysis techniques to analyze the effectiveness of the use of online media by the government of UAE. In this regard, a framework for the effective use of online media is proposed. The aspects which were focused in the framework includes publicity, marketing, reach, transparency, participation and engagement.

Through literature review discussed above, it is realized that online media data can be utilized to gain knowledge, when analyzed. Through the analysis of the data, the role of the police department can be observed towards good governance. This data can result in better decision making and future predictions.

2. <u>MATERIALS AND METHODS</u>

The main focus of this study is to assess good governance through one of the crucial government entities, i.e. police department of Pakistan using Facebook content

generated by police officials. In order to carry out the study a complete roadmap is devised.

The process of the study starts with the formalization of problem followed by the literature review. The focus of the study is to analyze the Facebook contents of the police department. The major part of the Facebook content is in the form of text, therefore text mining techniques are used in the study (Aggarwal and Zhai, 2012). Text mining is divided in three major steps, which include, data extraction, natural language processing and data mining. Next step of the study is the selection of Facebook sources for contents collection, followed by the extraction of data from selected sources. The extracted data may be in enormous amount as well as irrelevant, therefore filtration of data is needed. This is followed by cleaning of data, which cleaning involves removal of un-recognized characters, hyperlinks, multimedia links and emojis, applying NLP techniques. Finally, data mining is applied for discovery and interpretation of facts. The facts discovered are interpreted for understanding and the presentation of results. Validation and mapping of the results in terms of good governance is performed. The NLP techniques, data mining and mapping of results is explicitly discussed in are presented in the subsequent sub-sections.

3. RESULTS

Data analysis process starts with content source selection, the official Facebook pages of the police department of the provinces of Pakistan are selected as the data source. In the extraction of data, the focus was placed on extracting adequate number of posts per page. The filtration of data is performed, and irrelevant posts are manually observed and discarded. This was followed by cleaning of data, applying NLP techniques, and discovery and interpretation of facts. Validation and mapping of results in accordance with good governance is performed. Finally, results are presented in terms of good governance.

The sub-sections respectively discuss in detail, the analysis of data and interpretation of facts of the official Facebook pages of the police departments of four provinces of Pakistan i.e. Sindh, Punjab, Baluchistan, and KPK.

Official Facebook page of Sindh police

The (**Fig.2**) shows the word cloud of official Facebook page of Sindh police. The highest projecting keywords include accused, arrested, officers, ssp, traffic, case, complaints, uniforms and measures.

The correlations were observed for the highest occurring keywords including arrested, accused, complaints, case, traffic and measures which are presented in (**Table 2**).

As observed from Table 2, the posts related to arrest and accuse and investigation of kidnappers, murderers, arms dealers, drug dealers, gangs, exporters, killers and mobile snatchers are prominent. Similarly, the information related to killing, firing, operations and raids are also highlighted. The investigations and interrogation are underway for the outstanding cases. The cases and complaints received includes robberies and harassment.

Table 2. Correlations of the prominent accruing words of Sindh Police Facebook page

Correlation of prominent keywords						
Arrested						
suspects	recovered	d acci	accused		ıs	connection
0.83	0.81	0.72	2 0.6		9	0.69
killing	raids	coll	collecting targ		geted	bullets
0.66 dozens 0.57	0.62 grenades 0.57	robl	0.58 robbery 0.57		8 lets 7	0.57 weapons 0.56
Accused connection 0.84 exporters 0.67	arrest 0.72 gangs 0.67	o. s hi	illing .68 it .67	bom 0.67 susp 0.54	-	databased 0.67
Complaints examine 0.79 harassment 0.79		exceeded 0.79 numbers 0.58		0.7	estigatio	ons
Case murder 0.55	victim 0.54	regist 0.53	ered	investi 0.51	igation	underway 0.51
Traffic flow ac 0.82 0.7	cidents 71	celebrity 0.71	sev 0.7	wage '1	Water 0.71	Bad 0.5
Measures security 0.62	high 0.6	ly	coope 0.52	eration		federal 0.5



Fig. 1. Word cloud Facebook page of Sindh Police

While observing keyword "traffic", the posts related to accidents are highlighted. Furthermore, the traffic contention due to celebrities, and sewage water break are also highlighted. The term "bribe" and "bad performance" is noticed. For security measures, the keywords delegation, checking, duties and monitoring are prominent.

Official Facebook page of Punjab police

The (**Fig.2**) shows the word cloud of official Facebook page of Punjab police. The highest projecting keywords include khan, officers, nawaz, central, office, lahore, children and meeting.

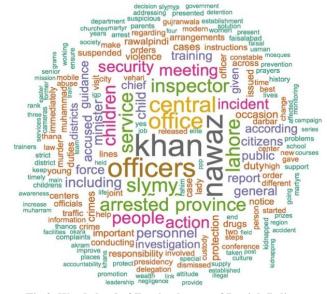


Fig.2. Word cloud of Facebook page of Punjab Police

The correlations were observed for the highest occurring keywords including children, arrested, accused, incident, traffic, protection, training, suspended and women which are presented in (**Table 3**).

As observed from the keyword "women" and "children", children and women awareness campaigns and workshops are highlighted. The campaigns are focused on responsibility and protection of women against women harassment and children protection against suspicious persons. Further, with the keyword "training", it can be observed that successful training programs held for the training of police in police training schools and colleges.

The police work is prominent against searching of disappeared children, arrest and accuse of gangs, kidnappers, killers and robbers. The immediate notices of the incidents can be observed while observing keyword "incident". Finally, failed prison escapes are also highlighted.

While observing keyword "traffic", the work against smooth traffic flow is observed specially on events such as Pakistan Super League (PSL) and special occasions such as S. NIZAMANI et al.,

Eid, Muharram or any other related events. It can be observed from the Facebook content of police officials, that police department is concerned about maintaining the law and order situation, especially during some special occasion, which is one of the prime responsibility of police.

Table 3. Correlations of the prominent accruing words of Punjab Police Facebook page

Correlation of prominent keywords						
0.63 0.63		tection	gender 0.63 lost 0.5	workshop 0.63 women 0.5		
Arrested Area 0.66 Successful 0.62	hours 0.65 noticed 0.56	gang 0.63 accused 0.56	kidnap 0.62 handed 0.56	robbers 0.62 registered 0.56		
0.61 0 abuse p 0.53 0 Incident		attempt 0.61 killer 0.5	0.61 robber 0.5	0.5		
notice kil 0.65 0.5			nmediately .5	criminal 0.5		
flow smo			state 0.53	psl eid 0.53 0.5		
Protection responsibility 0.73	y suspic 0.67	tious per		dren Child 0.53		
0.92 dealing	0.68 panjaa	modules 0.68 schools 0.52	prepared 0.68 colleges 0.5	trainers 0.66		
Suspended noninterest 0.79 citizens 0.5	sudde 0.68 action 0.5	0.51		attitude 0.5 brutality 0.5		
Women collective 0.6 minorities 0.54	gender 0.6 rights 0.54	workshop 0.6 children 0.5	harass 0.6 awarene 0.5	benefit 0.57		

Official Facebook page of Baluchistan Police

The (**Fig.3**) shows the word cloud of official Facebook page of Baluchistan police. The prominent terms include people, Muhammad, Thana, procedure, civil and action.

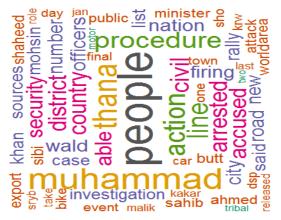


Fig.3. Word cloud of Facebook page of Baluchistan Police

The correlations were observed for the highest occurring keywords including people, action, attack, arrested, accused, security, public and procedures which are listed in (**Table 4**).

As observed from Table 4, the actions against robberies, murders and killings, export of drugs and marijuana, theft of cars and motorcycles and land mafia are highlighted. These highlights are observed while perceiving the keywords "action", "arrested", "accused" and "procedures".

While observing keyword "people", the term "affected" is highlighted along with "damaged", "government" and "corruption". While observing keyword "public", the complaints and political problems are spotted.

While noticing the keyword "security", the security given by the police for thousands of people on rally towards Imam Bargah on the roads. The double-ride ban is also imposed due to security reasons.

Finally, the terrorists and airstrikes attacks are also noted while spotting the keyword "attack". Along with, the condolences of martyred police officers are highlighted.

Official Facebook page of KPK Police

The Figure 4 shows the word cloud of official Facebook page of KPK police. The highest projecting keywords include khan, Pashawar, accused, Muhammad, people and arrested.

Table 4. Correlations of the prominent accruing words of Baluchistan Police Facebook page

Correlation o	f prominen	t keyv	vords				
People							
government	official		aff	fected	ben	efits	
0.67	0.64			ń	0.6		
betrayed		lain		rruption		naged	
0.6	0.6	complain 0.6		5	0.6		
Action							
strict	thieves		thana		Chor	fir	
0.7	0.67		0.6		0.54	0.54	
suspicious	motorcy	cle	hos	pital	Car		
0.54	0.54		0.5	4	0.54		
Attack							
martyred	airstrike	S		lolences		nilies	
0.7	0.56		0.56		0.5	6	
firing	matyrs		terro	rists			
0.56	0.56		0.55				
Arrested							
custody	detention		foreigners		robbery		
0.62	0.59		0.59		0.59		
murder	killed		registered		marijuana		
0.59	0.59		0.5		0.5		
Accused							
land	mafi	a	escape				
0.9	0.9		0.63				
Security							
appointed	rally	thous					
0.96	0.93	0.91	0.78		0.77		
bargah	buildings cctv		control		roads		
0.77	0.77 0.77		0.77		0.77		
double	ride ban		school		killings		
0.54	0.54	0.54 0.54		0.51	[
Public							
complaints	held		attended		political		
0.86	0.82		0.82		0.82		
problems	quetta		regional		court		
0.82	0.82		0.7		0.61		
Procedures							
export	drug			marijuana		arrested	
0.77	0.68		0.63			0.5	

The correlations were observed for the few highest occurring keywords including accused, arrested, martyr, killed and case which are presented in (**Table 5**).

As observed from table 5, the accuse and arrest of armed killers, murderers, muggers, weapon dealers and drug exporters are prominent. Police attacked by multiple armed persons is highlighted. The news related martyrs' bravery, shaheed's funerals and condolences are highlighted. The inquiries of registered cases are also prominent.



Fig.4. Word cloud Facebook page of KPK police

Table 5. Correlations of the prominent accruing words of KPK Police Facebook page

Correlation of Prominent Keywords						
Accused armed 0.89	fled 0.89		arrested	-	Attack).82	martyred 0.82
muging 0.82		ion		i	nvolved 0.73	0.02
Arrested Accused 0.86 martyred 0.77	armed 0.85 muging 0.77	kil 0.7 inv 0.7	8 estigatio	n	involved 0.77 amnesty 0.72	0.77
Martyr funeral 0.85	blood 0.77	cond 0.77	olences		onstable 77	bravery 0.57
Killed Attack 0.87	martyred 0.87	arm 0.8		offic 0.65		nvestigation .51
Case committee 0.84	d regist 0.84	ered	record	led	killed 0.76	inquiry 0.75

4. DISCUSSION

In this section, the discussion is presented along with empirical validations of the findings. For empirical validation news are manually observed by the researcher from the known newspapers and channels of Pakistan. For the interested readers, the references are provided along with the findings.

For all four provinces of Pakistan, roughly the highlights related to arrest, accuse and investigation of kidnappers (Reporter, 2019a; Reporter, 2019b; Report, 2019a; Jabri, 2019), arms dealers (Reporter, 2019c; PPI, 2019; Correspondent, 2019a), drug dealers (Report, 2019a; Reporter, 2019d; Reporter, 2019e; Xinhua, 2019a; Reporter,

S. NIZAMANI et al.,

2019f), murderers (Khalid, 2019; Asghar, 2019; Report, 2019c; Mushtaq, 2019; Report, 2019d), robberies (Report, 2019e; Baig, 2019; Correspondent, 2019b; Ali, 2019a) and other street crimes are prominent (Ali, 2019b; Reporter, 2019g).

In separate observation of the findings of each province few distinct verdicts are observed which are discussed here. For Sindh province, excluding arrest and accuse of similar crimes discussed above, mobile snatching cases are more prominent (INP, 2019). Similarly, the highlights related to sewage water breaks are also prominent in Sindh as compared with other provinces (Reporter, 2019h; Khan, 2019). The terms "bad performance" and "bribe" were also observed in traffic control in Sindh. When observed through digital media over this issue, the police department is suspending the suspected officers on being involved in bribery cases (Reporter, 2019i; Ali, 2019c). Similarly, the awareness workshop also held to reduce this practice (Muhammad, 2019).

The Punjab police is more focused on women and child safety as compared to other provinces (Ansari, 2018; "Women help", 2019). It can be implied that more children are disappeared, and more women are harassed in Punjab as compared to any other province (Reporter, 2019j). Additionally, the focus of training programs for police is high in Punjab police in comparison with others (Correspondent, 2019c).

In the page of Baluchistan police, the actions against land mafia are separately highlighted. The police of this province is also affected with terrorists and airstrikes (Writer, 2019; Reporter, 2019k). As a negative finding the keywords damaged, government and corruption are prominent in comparison with any other province. These corruptions are verified from online news source (Shahid, 2018). The public is complaining, which is also stressed in the results. However, the Baluchistan police consider the public complaints as their highest priority (Correspondent, 2019d).

The noticeable finding for KPK police mainly includes the armed person's attacks over police which results in deaths of multiple police officers. Four suicide attacks were faced by KPK in year 2018 (Xinhua, 2019b).

5. CONCLUSION

This exploratory study of online public content is intended to perform for the purpose of evaluation of good governance. As police departments of any country bears an important role towards good governance, therefore in this study we intend to analyses relevant information. The study is carried out on official Facebook pages of police department, in order to discover interesting facts from the online content regarding good governance. The text analysis based good governance evaluation model presented and the text-mining methodology is used, which is carried out using three steps including data extraction, NLP and data mining.

This analysis will help government and citizens of Pakistan, as focus and actions of police departments are clearly highlighted, interpreted and summarized in this study. The results are presented and discussed in terms of good governance. It can be concluded from the study that Facebook text can help the analysts to evaluate good governance to some extent using text analysis method. This study will help government and the people of Pakistan to better understand at what extent the good governance is achieved for the services provided by the police department of Pakistan.

This study has few limitations. Initially, the analysis is performed through multiple sources and in a big timeframe, which may lead to some interpretations being missed or incorrectly interpreted. We tried our best to validate the major findings to overcome this limitation. Further, this method of Facebook analysis only pinpoints major issues as there may be a possibility that the other issues which were posted in Facebook are not noticeable due to low correlation. It may also be noted, the results and interpretation are performed on what was available on selected Facebook sources. However, the validation and mapping results show that whatever interpretations are made also coincide with the news reports.

This publication is a part of a research in continuation that identifies the good governance in Pakistan using Facebook contents. In this regard, there are various services departments that requires evaluation such as government's official Facebook pages, news groups pages, education and other department's pages. Similarly, the local city groups pages, expressions of people given by the decisions made by government will also be evaluated. Finally, the common issues faced by the people of Pakistan will be highlighted as well.

REFERENCES:

Aggarwal, C. C, and C. Zhai, (2012). Mining text data: Springer Science and Business Media.

Ali, I. (2019a,). Karachi police arrest 3 members of gang involved in house robberies. Dawn, Retrieved from newspaper homepage

https://www.dawn.com/news/1460140

Ali, S. (2019b). Four men arrested for street crimes. Samaa Digital, Retrieved from newspaper homepage https://www.samaa.tv/news/2019/07/four-men-arrested-for-street-crimes/

Ali, I. (2019c). Five Karachi traffic police officials suspended over suspected corruption. Dawn, Retrieved from newspaper homepage

https://www.dawn.com/news/1426580/five-karachitraffic-police-officials-suspended-over-suspected-corruption

Ansari, I. (2018). Domestic violence, harassment cases in Punjab on the rise. The Express Tribune, Retrieved from newspaper homepage

https://tribune.com.pk/story/1870762/1-domestic-violence-harassment-cases-punjab-rise/

Asghar, M. (2019). Two serial killers arrested for gruesome taxi murders in Sargodha. Geo News, Retrieved from newspaper homepage

https://www.geo.tv/latest/250841-sargodha-police-arrest-two-taxi-serial-killers

Awan, Z. (2018). New Pakistani government faces many challenges Asia Times. Retrieved from http://www.atimes.com/new-pakistani-government-faces-many-challenges/

Baig, I. (2019). 30 arrested for robbery, car theft. Samaa Digital, Retrieved from newspaper homepage https://www.samaa.tv/news/local/2019/09/30-arrested-for-robbery-car-theft/

Chu, H., and C. Xu, (2009). Web 2.0 and its dimensions in the scholarly world. Scientometrics, 80(3), 717-729. Correspondent. (2019d, March 22). Complaints against police to be addressed on priority. Dawn, Retrieved from newspaper homepage URL

https://www.dawn.com/news/1471144

Correspondent, O. (2019b). District East police arrest 10 suspected robbers in raids. The News International, Retrieved from newspaper homepage

https://www.thenews.com.pk/print/529534-district-east-police-arrest-10-suspected-robbers-in-raids

Correspondent. (2019a) Police arrest 21 suspects during raids across Karachi. The Express Tribune, Retrieved from newspaper homepage URL

https://tribune.com.pk/story/2008326/1-police-arrest-21-suspects-raids-across-karachi/

Correspondent. (2019c) Training courses of Punjab police upgraded. The Express Tribune, Retrieved from newspaper homepage URL

https://tribune.com.pk/story/2014108/1-training-courses-punjab-police-upgraded/

Darwish, E. B. (2017). The effectiveness of the use of social media in government communication in the UAE. Journal of Arab and Muslim Media Res. 10(1), 41-63.

Diakopoulos, N. A., and D. A. Shamma, (2010). Characterizing debate performance via aggregated twitter sentiment. Paper presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems.

ESCAP. (2006). Economic and Social Survey of Asia and the Pacific Retrieved from New York: https://www.unescap.org/resources/economic-and-social-survey-asia-and-pacific-2006

INP. (2019). 9,664 Karachiites deprived of cell phones in three months. Pakistan Today, Retrieved from newspaper homepage

https://www.pakistantoday.com.pk/2019/04/01/9664-karachiites-deprived-of-cell-phones-in-three-months/

Jabri, P. (2019). Three kidnappers arrested; abductee recovered. Business Recorder, Retrieved from newspaper homepage URL

https://www.brecorder.com/2019/04/05/486216/three-kidnappers-arrested-abductee-recovered/

Khalid, M. (2019). Police arrest man who killed friend over Rs.10,000. Samaa Digital, Retrieved from newspaper homepage

https://www.samaa.tv/news/2019/04/police-arrest-man-who-killed-friend-over-rs10000/

Khan, S. (2019). Who is choking Karachi's sewerage system? Samaa, Retrieved from newspaper homepage https://www.samaa.tv/news/2019/09/who-choking-karachis-sewerage-system/

Livne, A., M. P. Simmons, E. Adar, and L. A. Adamic, (2011). The Party Is Over Here: Structure and Content in the 2010 Election. ICWSM, 11, 17-21.

Mayfield, A. (2008). What is Social Media, iCrossing, e-book. In.

Muhammad, W. (2019). Crime rate will decrease if police stop seeking bribes. The Express Tribune, Retrieved from newspaper homepage

https://tribune.com.pk/story/1901153/1-crime-rate-will-decrease-police-stop-seeking-bribes/

Mushtaq, K. (2019). Karachi man who murdered 16-year-old wife arrested. Geo News, Retrieved from newspaper homepage https://www.geo.tv/latest/243034-karachi-man-who-murdered-16-year-old-wife-arrested

Myerson, R. (2014). Constitutional structures for a strong democracy: considerations on the government of Pakistan. World Development, 53, 46-54.

PPI. (2019). Police arrest suspected extortionist from Karachi. Pakistan Today, Retrieved from newspaper homepage URL

https://www.pakistantoday.com.pk/2019/05/01/police-arrest-suspected-extortionist-from-karachi/

Reddick, C. G., A. T., Chatfield, and A. Ojo, (2017). A social media text analytics framework for double-loop learning for citizen-centric public services: A case study of a local government Facebook use. Government Information Quarterly, 34(1), 110-125.

Report. (2019a). Two arrested for kidnapping boy. The News International, Retrieved from newspaper homepage URL

https://www.thenews.com.pk/print/537601-two-arrested-for-kidnapping-boy

Report. (2019b) Drug dealer arrested. The News International, Retrieved from newspaper homepage URL

https://www.thenews.com.pk/print/442099-drug-dealer-arrested

Report. (2019c,). Police arrest man believed to be linked to child murders in Kasur. Pakistan Today, Retrieved from newspaper homepage

https://www.pakistantoday.com.pk/2019/09/27/police-arrest-man-believed-to-be-linked-to-child-murders-in-kasur/

Report. (2019d,). MQM target killer 'wanted for 111 murders' arrested in Karachi. Pakistan Today, Retrieved from newspaper homepage

https://www.pakistantoday.com.pk/2019/10/10/mqm-target-killer-wanted-for-111-murders-arrested-in-karachi/

Report. (2019e). Hypnotist robber gang arrested in Karachi. Pakistan Today, Retrieved from newspaper homepage

https://www.pakistantoday.com.pk/2019/09/11/hypnotis t-robber-gang-arrested-in-karachi/

Reporter. (2019a). Lahore man arrested for kidnapping his own son. Pakistan Today, Retrieved from newspaper homepage URL

https://www.pakistantoday.com.pk/2019/09/23/lahore-man-arrested-for-kidnapping-his-own-son/

Reporter. (2019b). Kidnapped doctor recovered, kidnappers arrested. Sach Times, Retrieved from newspaper homepage URL

https://sachtimes.com/en/pakistan/kidnapped-doctor-recovered-kidnappers-arrested/

Reporter. (2019c). Gang selling illegal arms licenses busted. The Nation, Retrieved from newspaper homepage URL

https://nation.com.pk/03-Jan-2019/gang-selling-illegal-arms-licences-busted

Reporter. (2019d). Soldier Bazar Police Arrest Gang of Notorious Drug Dealer. Urdu Point, Retrieved from newspaper homepage URL

https://www.urdupoint.com/en/pakistan/soldier-bazar-police-arrest-gang-of-notorious-697290.html

Reporter. (2019e). Inter-provincial Gang of Drug Dealers Arrested In Bahawalpur. Urdu Point, Retrieved from newspaper homepage URL

https://www.urdupoint.com/en/pakistan/inter-provincial-gang-of-drug-dealers-arreste-583570.html

Reporter. (2019f). Three women among nine 'drug dealers' held. Dawn, Retrieved from newspaper homepage URL https://www.dawn.com/news/1466787

Reporter. (2019g,). Three Bike Lifters Held, Four Stolen Bikes Recovered in Islamabad. Urdu Point, Retrieved from newspaper homepage

https://www.urdupoint.com/en/pakistan/three-bike-lifters-held-four-stolen-bikes-re-680575.html

Reporter. (2019h). Broken sewerage mains lead to supply of contaminated water in city, Dawn, Retrieved from newspaper homepage

https://www.dawn.com/news/1498646/broken-sewerage-mains-lead-to-supply-of-contaminated-water-in-city

Reporter. (2019i). Sindh Police suspend two officers over fraud, bribery charges. Samaa Digital, Retrieved from newspaper homepage

https://www.samaa.tv/news/2019/09/sindh-police-suspend-two-officers-over-fraud-bribery-charges/

Reporter. (2019j). Protection of women, children priority: IG, Punjab Police, Retrieved from https://punjabpolice.gov.pk/node/7559

Reporter. (2019k, October 15). Blast targetting police vehicle in Quetta. Liveuamap, Retrieved from https://pakistan.liveuamap.com/en/2019/15-october-ied-blast-targeting-police-vehicle-in-quetta-city

Shah, A. (2018). Five major challenges before Pakistan's new government. Daily Times. Retrieved from https://dailytimes.com.pk/274695/five-major-challenges-before-pakistans-new-government/

Shahid, S. (2018). 600 Balochistan uplift projects exist only on paper says CM. Dawn, Retrieved from newspaper homepage URL

https://www.dawn.com/news/1451128/600-

balochistan-uplift-projects-exist-only-on-paper-says-cm

Tumasjan, A., T. O. Sprenger, P. G. Sandner, and I. M. Welpe, (2010). Predicting elections with twitter: What 140 characters reveal about political sentiment. Icwsm, 10(1), 178-185.

Writer, S. (2019). Four Pakistan police officers killed in Quetta bombing. The Defense Post, Retrieved from newspaper homepage URL

https://the defense post.com/2019/05/13/pakistan-4-police-killed-quetta-bomb-balochistan/

Xinhua. (2019a,). 77 drug peddlers arrested in northwestern Pakistan. Aisa and Pacific, Retrieved from newspaper homepage URL

http://www.xinhuanet.com/english/2019-02/24/c_137846298.htm

Xinhua. (2019b,). 6 policemen killed in series of attacks in NW Pakistan. Aisa and Pacific, Retrieved from newspaper homepage URL

http://www.xinhuanet.com/english/2019-

07/21/c_138244902.htm