

FACTFILE: GCE PROFESSIONAL BUSINESS SERVICES

UNIT A2 1: TECHNOLOGY FOR COMMUNICATIONS



Learning Outcomes

Student should be able to:

- Demonstrate knowledge and understanding of the range of technologies available to support communications in business, for example: *(Note only email, instant messaging and smartphones are covered in this factfile)*
 - email;
 - instant messaging;
 - telephone and smartphone;
 - voicemail;
 - document sharing;
 - text;
- evaluate the suitability and effectiveness of these communication methods in terms of:
 - websites;
 - web conferencing;
 - conference calls (voice video and web); and
 - social media;
- evaluate the suitability and effectiveness of these communication methods in terms of:
 - professional business services firms' client needs;
 - users;
 - time;
 - cost; and
 - security.



Technologies available to support communications in a business

The technologies available to support communications include: email; instant messaging; smartphone; websites; social media. The suitability of these technologies will be dependent on myriad factors including the strategy, structure and systems of the business and the capabilities of employees and recipients receiving the communication. Within each of these technologies there are strengths and weakness, dependent on the context (internal and external factors) of the business. The suitability and effectiveness of these technologies can be evaluated in terms of professional business service firms' client needs, users, time, cost, and security.

Email

Email is a means of sending and receiving electronic messages (Bocij et al, 2008) and enables businesses to send and receive communications very quickly. Many businesses use email to send and receive communication internally and to communicate with external stakeholders. Email messages can be accessed via computer or mobile phone and can carry attachments e.g. files, pictures, videos and presentations. Messages can be stored and retrieved electronically removing the need to print and store messages.

Companies such as Google, Microsoft, Yahoo, and AOL provide platforms where users can set up an email account.

Statista (2020a) estimated that there were 3.8 billion email users in 2018 and it is projected there will be 4.4 billion users in 2023. In 2018 Apple had the number one spot for email clients with Google in second place for email users.

Table One – An evaluation of email’s suitability and effectiveness to support communications in a business

Criteria	Advantages	Disadvantages
PBS firms’ client needs	<ul style="list-style-type: none"> - client can use email for internal and external communications. -fast way to communicate internally and externally; enables business to be more responsive to customer and supplier needs. 	<ul style="list-style-type: none"> - business will bear the cost of computers, software, and infrastructure. - business will incur staff costs i.e. employing people to create and implement policies regarding use of emails by staff.
Users	<ul style="list-style-type: none"> - a simple method for contacting people and staff training is quick and easy. - large amounts of information can be attached to emails and sent to other users. 	<ul style="list-style-type: none"> - user can send an email to the wrong person which may contain sensitive information. - business may incur a cost to train employees to use the email system.
Time	<ul style="list-style-type: none"> - employees can send information much more quickly than conventional mail.- users’ email addresses are stored in the system and can be retrieved quickly. 	<ul style="list-style-type: none"> - users may come to expect instant replies and if not forthcoming, may cause frustration or conflict. - employees may devote too much time responding to emails leaving little time to complete other duties.
Cost	<ul style="list-style-type: none"> - email is a low-cost method for contacting one or a large number of people. - emails reduce paper costs as information can be stored electronically. 	<ul style="list-style-type: none"> - if a business’s firewall is breached through email the retrieval of corrupted data may be expensive. - mistakenly sending data about an individual may breach GDPR.
Security	<ul style="list-style-type: none"> - firewalls can be installed to protect the email system. - business will have digital security policies to ensure that employees do not open emails from a dubious source. 	<ul style="list-style-type: none"> - spam mail can overload the email system and cause it to crash. - viruses can spread via email and corrupt stored data.

Sources: nibusinessinfo (2020a) and University of Liverpool (2020)

Instant messaging (IM)

Instant messaging is an electronic method that enables users to communicate in real time with other users within their network (National Archives, 2020). Aside from being able to send messages, users can also attach files, videos and files.

IM differs from email as users know if other users are logged in to the IM system and are prepared to accept messages. If a user is not logged in to an IM system then other IM users cannot send them a message.

IM providers include Facebook, Skype and WhatsApp.

Table Two – An evaluation of instant messaging’s suitability and effectiveness to support communications in a business

Criteria	Advantages	Disadvantages
PBS firms’ client needs	<ul style="list-style-type: none"> - IM enables the firm to contact anyone available to be contacted immediately. Very useful in an emergency as relevant staff can be contacted immediately to address the issue. 	<ul style="list-style-type: none"> - businesses will need to produce a policy covering the use of instant messaging and security protocols. Businesses will incur essential cost of employing staff to produce and update the policy as required. - business will bear the cost of putting systems in place to monitor the use of instant messaging by staff.
Users	<ul style="list-style-type: none"> - IM caters for one-to-one or group text communication in real time enabling staff to respond quickly to business matters. - IM communications can be saved and filed, enabling a business to keep records of all conversations. 	<ul style="list-style-type: none"> - businesses may incur costs in having to train staff. - employees may use instant messaging for personal use which may distract them from doing their work.
Time	<ul style="list-style-type: none"> - communications can be sent and received almost immediately, helping to mitigate delays in communications and subsequent actions. 	<ul style="list-style-type: none"> - employees may respond quickly to communications but may not take enough time to think about the various implications of their response. - too hasty a response may provide inaccurate information resulting in the wrong course of action. - time may be needed to train employees with cost to the business.
Cost	<ul style="list-style-type: none"> - IM is easy to comprehend and use so costs of training and use of this technology is likely to be small. 	<ul style="list-style-type: none"> - businesses will have to pay for the cost of the IM system and supporting security software. - if businesses are found in breach of General Data Protection Regulation (GDPR) they may be fined.
Security	<ul style="list-style-type: none"> - businesses can use encrypted platforms to enhance the security of data being transmitted by employees. - businesses can introduce firewalls to protect their instant messaging systems reducing the likelihood of data being corrupted or stolen. 	<ul style="list-style-type: none"> - employees may use their personal IM accounts which may not have the same level of encryption security and leave their communications exposed to cyber criminals. - in the wrong hands, this data could compromise the business and result in fines from the GDPR regulator. - breaches in IM security may become public information and cause reputational damage.

Sources: Bean-Mellinger (2019); Gann (2012); Government of the HKSAR (2008) and NFIB (2015)

Smartphone

A smartphone is a cellular phone which contains features (Rouse and Provazza, 2020) such as an operating system, web browsing capability, and the capacity to use software applications. Employees within a business use smart phones to communicate with stakeholders and to perform their job in an effective and efficient manner. The effectiveness of these phones has increased as businesses create applications (apps) enabling employees to interact more effectively with organisations. The portability of the smartphone means that employees can communicate immediately via text, email and Social media. Businesses such as Facebook, Twitter, and LinkedIn have created apps that allow smartphone users to access their platforms and post messages.



Figure 2. Smartphone

The key features of a smartphone include internet connectivity, a camera, a touchscreen, a mobile browser, wi-fi connectivity, in-built memory capacity, a processor, the capacity to sync email accounts to the device, a QWERTY keyboard and gaming capability.

Statista (2020b) states that in 2018 there were over 2.9 billion smartphone users worldwide and this figure was projected to rise to 3.8 billion users in 2021. According to Holst (2019) China, India, and the United States contain the highest number of smartphone users.

Table Three – An evaluation of smartphone’s suitability and effectiveness to support communications in a business

Criteria	Advantages	Disadvantages
PBS firms’ client needs	<ul style="list-style-type: none"> - smartphones enable employees to operate remotely, meaning less office space required, in turn reducing costs of purchase or premise rental. - smartphones can reduce travel demands as employees may not need to return to office premises for meetings or to complete paperwork. - this reduction in distance travelled reduces a business’s carbon footprint. 	<ul style="list-style-type: none"> - smartphones enable employees to operate remotely, meaning less office space required, in turn reducing costs of purchase or premise rental. - smartphones can reduce travel demands as employees may not need to return to office premises for meetings or to complete paperwork. - this reduction in distance travelled reduces a business’s carbon footprint.
Users	<ul style="list-style-type: none"> - smartphones improve customer service as employees can respond faster to customer requests. - smartphones enable employees to operate remotely meaning less office space required, reducing costs. - businesses can contact employees 24/7, enabling the business to update staff immediately on changes creating more informed and knowledgeable employees. 	<ul style="list-style-type: none"> - employees’ workflow may be hampered with means for constant interruption. - employees’ work-life balance may be adversely affected if they receive work-related calls outside of working time.

Criteria	Advantages	Disadvantages
Time	<ul style="list-style-type: none"> - businesses can improve employee productivity as the employee can forward completed documentation from remote locations without having to travel back to the workplace to complete paper forms. - employees' time is more effectively utilised as saved travel time can be used to meet more stakeholders (customers and suppliers) or spend more time building relationships with stakeholders. - managers of remote employees have more flexibility in their job e.g. meet employees via conference calls. 	<ul style="list-style-type: none"> - businesses need to invest time researching which smartphone best meets the needs of the business. - employees can be overwhelmed with the volume of texts, calls, and emails received and then do not have enough time to meet their work deadlines.
Cost	<ul style="list-style-type: none"> - businesses can decrease travel costs - employees can forward completed documentation from remote locations. - contract for smartphones could be negotiated from a single provider enabling business discount. - discount could offset some of the cost of smartphones. 	<ul style="list-style-type: none"> - business will incur costs in relation to the purchase of smartphones, internal systems to support the phones, and staff training. - if there is foreign travel higher operating
Security	<p>- security on a smartphone can be enhanced by the business enabling three basic elements of security:</p> <ol style="list-style-type: none"> 1. Device Protection: permit remote data "wiping" should your smartphone is lost or stolen. 2. Data Protection: stop business data being transmitted to personal apps operating on the smartphone 3. App-Management Security: Protect your company app information from becoming compromised. 	<ul style="list-style-type: none"> - businesses may have to incur time and resource costs in producing a Smartphone policy and monitoring adherence to it. - smartphones can be vulnerable to phishing attacks and data could be stolen from the business.

Sources: Blagojevic (2016); Kaspersky (2020); and nibusinessinfo (2020b)

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