



Wearables in the workplace

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Executive Summary

The rise of the wearable technology sector has the potential to drastically alter the landscape of society and business. Companies have already begun to adopt this new technology in an attempt to harness its various benefits. However, the widespread adoption of wearable technology is hampered by issues ranging from poor product design to data privacy concerns.

This report has been prepared by five students from the London School of Economics and Political Science. Using both qualitative and quantitative research methods, we investigated the extent to which wearable technology is being adopted, the benefits and barriers to adoption, and the degree to which employees would be willing to share their data on wearable devices with their employers.

Our analysis showed that wearables have high adoption potential, with the rate of adoption in the UK being similar to that of tablets. A significant proportion of wearables users are looking for health and fitness data tracking functionality. The majority of employees are cautious about sharing their data, but different incentives may alleviate their concerns. For firms to successfully integrate wearable technology at their workplace, it is recommended that initial employee participation should be voluntary, with a focus on health and wellbeing.

1 Introduction

With wearables being hailed as the “next big thing” in the field of innovative technologies, businesses must carefully assess its potential for workplace applications if they do not wish to miss out on possible sources of competitive advantages. The use of wearables at the workplace also raises various issues ranging from employer IT security and employee data privacy, and firms must take care not to alienate its workforce by forcing the adoption of this new technology.

The objectives of this paper is to achieve the following:

- Explore the extent to which wearable technologies are being adopted
- Determine the benefits that wearable technologies offer
- Understand the extent to which employees would be willing to share data on wearable devices with their employers
- Establish what are the barriers to adoption
- Investigate how these might be overcome

In addition to desk research, our team used both quantitative and qualitative research methods in our analysis, including a survey of 270 people and 15 in-depth interviews.

2 Current State of the Wearables Market

In 2015, 45.7 million units of wearables were shipped globally, with total shipment forecasted to reach 126.1 million by 2019¹. By far the most popular category of wearables are those worn on the wrist, having an 89.2% market share (Figure 1). This majority market share is largely tied to consumer-use rather than workplace applications. Examples of popular devices include smart watches like the Apple Watch and fitness trackers like the Fitbit. This shows that there is still an untapped potential for the development of company or industry specific wearables that could be applied to the workplace.

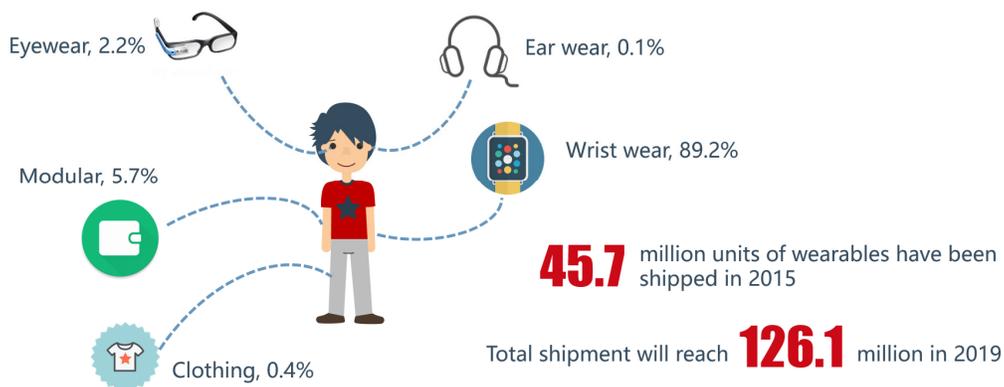


Figure 1. Categories of wearables by market share in 2015¹

In the UK, 6.1 million people already own a wearable device, with 40% owned by 24-36 year olds.² A recent study found that device ownership can be highly dependent on gender for certain wearables.² For example, 75% of smart watches are owned by men whereas the gender split is more even for fitness trackers, with 49% of owners being women. Of those who do not own a wearable, 13% are keen on getting a wearable device in the near future, with smart watches being the most popular option.

The rate of adoption for wearables is highly comparable to that of tablets. As shown in Figure 2, the percentage of UK population owning a wearable in the first five quarters after launch follows a similar trend to tablet ownership. Initially, tablet ownership was first driven by consumer use, before finding applications in boardrooms and other workplace situations. It can be expected that wearables will follow a similar trend to this, and that in the future wearables are likely to be a very common sight around the workplace.

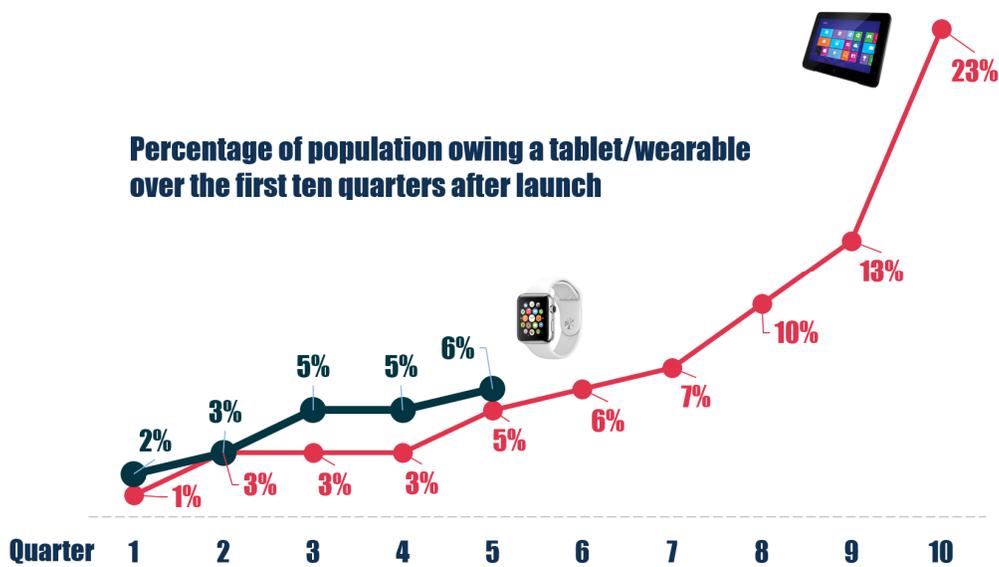


Figure 2. Percentage of UK population owning a tablet/wearable over the first ten quarters after launch²

3 Current Workplace Applications of Wearables

3.1 Efficiency

The first major benefit for companies is that wearables have the potential to substantially improve the efficiency of operations. This is mainly due to the hands-free nature of wearable devices and the fact that they can be connected to a network. The following examples showcase how different companies have adopted wearables.

- **Hands-free applications**
Tesco employees wear armbands that automatically track the goods that workers are transporting, reducing the need to mark clipboards.³
- **Efficient knowledge transfer**
Boeing uses Google Glass to give the users in the progress of assembling a product more information as needed without them needing to refer to a manual.⁴
- **Real-time navigation**
Amazon employees wear GPS tracking devices that show them the most efficient route to collect goods in warehouses.⁵
- **Payment and identification systems**
Epicenter employees have embedded RFID microchips in their hands which grants them access through security checkpoints and cashless payments at canteens.⁵

3.2 Health

Wearable devices have the ability to continuously measure and analyse the health data from a person's daily life – this is the concept of the quantified self. It grants the user a greater sense of awareness, and can encourage them to manage and improve their wellbeing. This can also lead to better employee productivity at work, since they are now better able to avoid the dangers associated with mental and physical stress. Health applications of wearables have significant implications for organisations, both in terms of having a healthy workforce and in terms of the ability to track the health data of employees and/or customers.

- **Medical advancements**
Wearables are changing doctor - patient relationships as a result of remote monitoring. For instance, doctors can monitor patient heart activity using iHealth wearable electrocardiograms for 72 hour periods.

- **Safety benefits**
Hands-free devices can monitor workers' stress and fatigue levels, as well as exposure to harmful chemicals/elements, reducing the risk of on-the-job injuries.⁶
- **Productivity gains**
BP has given employees Fitbits and rewards them if daily activity goals are met. In turn, wellness data is used to make organization stress free, safe and productive.⁶
- **Increased employee engagement**
At Kronos, staff earn prizes and reduced insurance premiums if daily activity metrics are uploaded. This has been shown to improve overall employee engagement and health.⁶

3.3 Connectivity

Wearable technology boosts connectivity by providing users with new ways to interact with other people and objects. In a workplace context, it can facilitate the way in which employees work by offering more diverse, discrete and efficient methods of connecting with colleagues.

- **Strengthened communication**
Apple Watch enables one to send sketches, taps, or even his/her heartbeats. In a workplace situation, it can discretely notify the user if they have received a message, allowing employees to stay updated even if they are in meetings, etc.⁷
- **Connection to the Internet of Things**
NFC Rings can unlock digital door locks, mobile devices and any other devices with a reader.⁸
- **Facilitated networking**
Proximity badges identify people who are likely to have shared interests in professional networking events, allowing them to seek each other out.⁹
- **Virtual reality**
Oculus Rift allows users to completely immerse themselves into virtual worlds and engage in a new way.

4 Background Research – Barriers to Adoption

4.1 Barriers – Privacy concerns

A number of potential barriers to widespread adoption of wearables in the workplace can be identified, and have been explored in the academic literature on technology in the workplace.

The first barrier to workplace adoption of wearables, mentioned in almost every article on wearables, is employee privacy concerns. Concerns surrounding the potential for employee privacy to be undermined by new technology have a long history. This has been covered in the academic organisational behaviour literature, which helps to shed light on the significance of the issues surrounding wearables.

For example, Townsend and Bennett, break down the issue of workplace privacy, in relation to technology, into three key components.¹⁰ These are:

- **Individual privacy rights**
In terms of whether employees can use devices for personal purposes.
- **Work place monitoring**
This is the way in which digital technology allows constant monitoring of all employees, with potentially Orwellian implications. Clearly wearables connected to employer's IT systems, potentially allow 24 hour employee monitoring, and therefore new systems to ensure worker privacy at times may be needed.
- **The security of individuals' personal information**
This becomes more of an issue as wearables generate more data, including, potentially, sensitive health data.

Another, relevant theory is Communication and Privacy Theory. This states that individuals establish boundaries in terms of the information they are willing to share with an employer, through discussion and assessment of the costs and benefits of information sharing. It seems clear the introduction of wearables may require such boundaries to be redefined, given the new forms of data that can be gathered.¹¹

Finally, a highly relevant theory is Psychological Contact theory, that states that employers make an implicit agreement with their employees, and studies indicate this agreement often includes assumptions about employee personal email privacy. The work of scholars such as Rousseau, indicates that if a psychological contract is violated this can result in higher absenteeism and turnover.¹² Therefore, if introducing wearables into the workplace, employers need to be very clear in explaining how far data gathered is private, or belongs to the company, as if they do not do this, employees may form false impressions about data privacy and then experience a breach of their psychological contract, causing employee dissatisfaction.¹¹

4.2 Privacy concerns depend on the purpose and context

It is clear that there is a detailed theoretical literature, which explores how technology impacts on workplace privacy. Real workplace examples, however, illustrate that, in practice, concerns over privacy have often been overcome, when wearables have proven useful. Below are four interesting real life cases, which show that wearables can provide benefits, which have outweighed privacy concerns, in relation to, safety, convenience, wellness and efficiency.

- **Safety – Rio Tinto's "Smart-Cap"**

When wearables provide significant safety benefits to employees, such benefits have clearly outweighed privacy concerns and the technology has been readily accepted. A key example is Rio Tinto, which issues a "Smart-cap" to employees in its Australian coal mines, that contains forehead sensors to monitor alertness and prevent sleep related accidents, such as crane operators falling asleep during long shifts and causing injury. Such devices are proving effective at cutting accident levels and rival miners such as Anglo American are also adopting the "Smart-cap" technology. The use cases go beyond mining to any occupation where alertness is critical for safety, such as HGV driving. It is clear, therefore, that if definite safety improvements can be made, privacy concerns will not prove a serious barrier to adoption, as the functionality is so valuable.⁶

- **Convenience – Epi-center's RFID Implants**

Certain cases show that some employees are willing to voluntarily sacrifice substantial levels of privacy if convenience benefits are provided. The key case example here is Epi-center, a pioneering co-working office space in Stockholm, where around 20% of workers have voluntarily opted for RFID implants, into their hands, to allow them not to carry a key card. Obviously this is highly unusual, and unthinkable in many UK offices, at the moment. However, it is a case which illustrates that some workers are willing to accept an invasive and seemingly privacy compromising technology, at work, to enhance the convenience of their day.⁶

- **Wellness – Carewise's Fitbits**

Privacy concerns are already being overcome as a barrier to wearable adoption, when the technology provides health and wellbeing, benefits to workers. For instance, Carewise a wellness programme provider in the US, has had great success issuing Fitbits in workplaces, and has found healthcare costs rise only 0.7% annually, for highly active participants, compared to 24% to those who are less active. Therefore, privacy concerns have not in practice proven a serious obstacle to the adoption of valuable opt in services.³

- **Efficiency – Tesco's Location Tracking Wrist Computers**
Location tracing wearable armbands are increasingly used in warehouses, including Tesco's distribution centres. They often significantly enhance worker speed and productivity, compared to the old use of paper clipboards to manage and record inventory movement. Therefore, worker privacy concerns are not preventing the adoption of wearables in this context, where worker movement has always been monitored to some extent, only less efficiently in the past.³

4.3 Barriers – Practical concerns

Another potential barrier to wearable adoption in the workplace, that must be considered, are practical barriers. Five main categories of practical barrier can be identified:

- **Device abandonment**
Studies have found that significant proportions of users, up to a half, stop using the devices within six months.¹³
- **Data management and security challenges**
There are clearly challenges for firms, and potential opportunities for data management companies, surrounding the organisation of the potentially vast quantities of new information created by wearables. One aspect of this is data security. Late last year the supermarket Morrisons was sued by 2,000 staff who had had their personal employee data leaked online by a company auditor. Therefore gathering more data, including sensitive health data, from wearables, potentially creates new risks for companies in terms of protecting their employees' information.¹⁴
- **IT security challenges**
A third related practical barrier are the new workplace IT security challenges wearables bring. Already, the “bring your own device” phenomenon, creates difficulties for IT staff, so a new class of devices, especially if employees bring their own, created new challenges.¹⁵
- **Cost challenges**
There may be cost barriers to introducing wearables, especially as the return on investment will be hard to calculate. One example is BP's issuing of 25,000 Fitbits to employees in 2013, which at approximately £40 per Fitbit is £1,000,000 on hardware alone. It of course may be the case that these Fitbits easily pay for themselves by making employees healthier and more productive and lowering the sickness benefits BP must pay. However, at the moment there is no evidence such cost benefit calculations are being done, and the Fitbits seem to simply be another worker health incentive at BP.¹³

- **Regulatory issues**

Employers will also have to contend with new regulatory issues, as they gather more data. For instance, they will have to ensure that new forms of data, collected from wearables, are managed in ways that are compliant with the UK Data Protection Act.

4.4 Potential solutions to privacy concerns

Three potential solutions to privacy concerns as a major barrier to adoption can be identified:

- **Opt-in or Opt-Out Wearable Programmes**

Giving employees the option to opt in or out may well reduce concern, a number of authors have noted, which seems to be supported by the opt in nature of use of Fitbits at companies like BP.¹⁶ Also, worth noting, if employers want to increase participations in the use of wearables, such as work issued fitness trackers, having employees opt in by default, so that they have to explicitly choose to opt out if they want to, will tend to increase participation.¹⁷

- **Employee Consultations**

One way to address privacy concerns is holding employee consultations, prior to workplace wearable system adoption. The Mayo Clinic, a highly regarded US hospital, for instance, did this before introducing a new RFID wearable bracelet system.¹⁶

- **Third Party Data Management**

A third option is introducing third party data management, by a company such as Fitbit, and only giving employers access to aggregate data, so employees don't have to worry about their boss monitoring their individual health statistics.

5 Methodology

This section will describe the data collection methodology for our study. We gathered both quantitative survey data and qualitative interview data. The Survey had 18 questions, and we got 401 responses 270 of which were complete, which is quite a good overall sample, for our purposes of drawing statistically significant conclusions about the opinions of a wide range of people.

Our qualitative data collection took the form of 15 semi-structured interviews, which were an average of around 30-40 minutes. These covered both full time students and employees across a wide age range.

Our survey participants were 57% male and 43% female, with an average age of 34. 72% were employed and 80% had bachelor’s degrees.

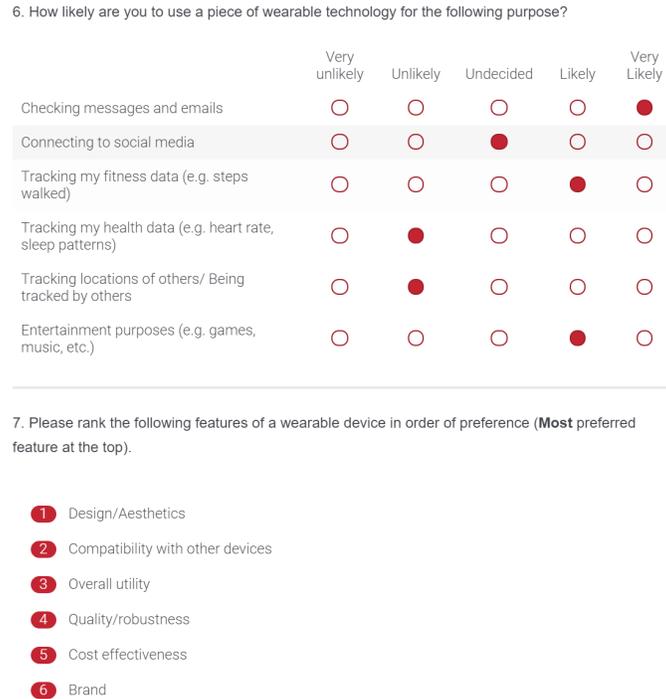


Figure 3. Snapshot of Survey

5.1 Limitations of our Data

As with all surveys, some sampling bias is identifiable. There was an overrepresentation of city workers and residents, both students in London and London employees in our sample, compared to the general population. Those who took our survey also tended to disproportionately live in the southeast of England.

Another potentially significant limitation, in the context of technology, was the fact that the survey was online, meaning that those taking it were already active Internet users. This means that those who use technology little are underrepresented. However, this does not seem to be a great problem, as our conclusions are still highly relevant to many modern workplaces, where all workers use the Internet extensively anyway.

Finally, as 80% of those we surveyed had bachelors degrees our sample is educationally unrepresentative, compared to the general population, as still well below half have a degree. Therefore, the survey may more accurately reflect professional workplaces where degrees are more often found.

6 Results

6.1 Quantitative Study

We had three themes in the survey: awareness, application, and data sharing. For the first theme, awareness, we asked questions related to the types of wearable devices and brands that our respondents are familiar with. This was followed by the second theme of application, where we asked about our respondents' reasons for using wearable technology and their expectations from these devices in terms of characteristics and benefits. Finally, we examined data sharing concept. This was a special focus of our study since privacy concerns that are related to data sharing is a big part of the barriers to adoption of the wearables in the workplace. For this final theme we asked our respondents about the type of data they would be willing to share and the potential incentives to increase their willingness.

6.1.1 Interest in wearables

Majority of the respondents show interest in wearable technology by agreeing to the statement of "I am interested in wearable technology". As shown in Figure 4, the level of agreement varied for respondents, while 35% of them strongly agreed to the statement.

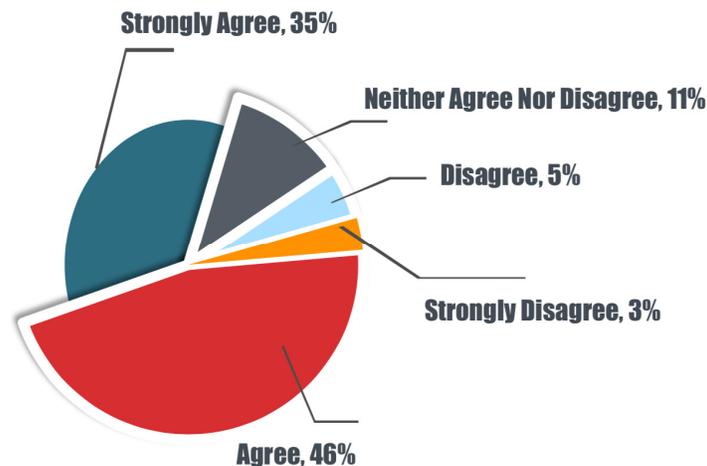


Figure 4. Interest in variables

6.1.2 Awareness – Popularity of devices and future usage

Amongst the current users, fitness trackers are the most popular wearable technology devices, with 84% of the respondents currently owning one. Fitness trackers are followed by smart watches with 39%, while headgears and smart clothing is much less popular with only 6-10% of the current users owning such a wearable technology item (see Figure 5).

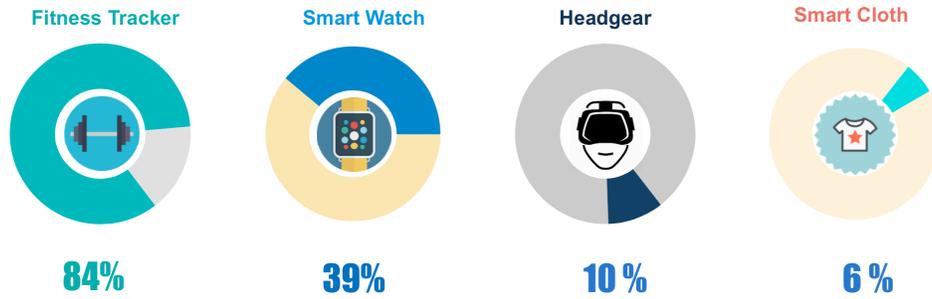


Figure 5. Current wearable technology users

Smart watches show a great potential in future usage, with 84% of the respondents showing interest in owning a device within the next six months to three years. Furthermore a similar trend of current users are seen in the potential future users, where the respondents are much less interested in using headgears and smart clothing in the near future (see Figure 6).

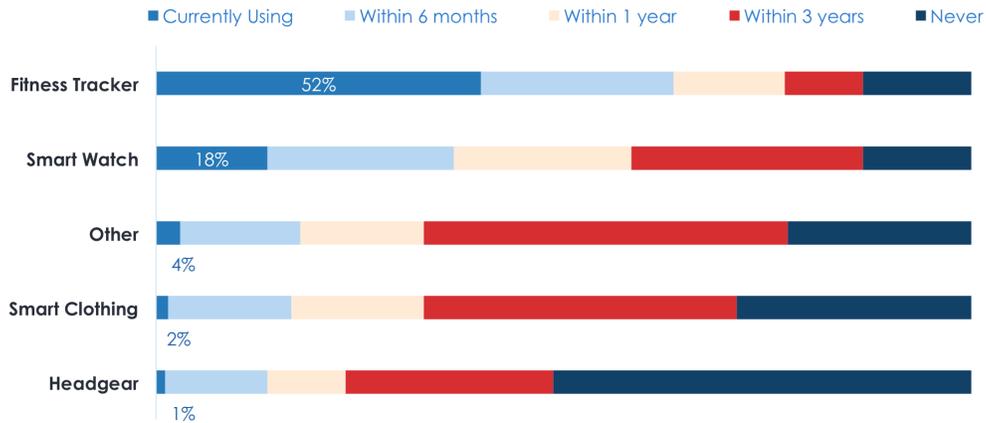


Figure 6. Potential future usage

6.1.3 Application – Purposes and usage

When we asked the respondents why they were likely to use wearable technology Fitness and health data tracking are the most popular answers. The high percentage suggests that the majority were familiar with the fitness and health data tracking feature of the wearables and are more likely to use their devices for this purpose in the future. After these purposes, messaging and social media usage came second, while entertainment and location tracking purposes were the least popular reasons to use wearable technology (see Figure 7).

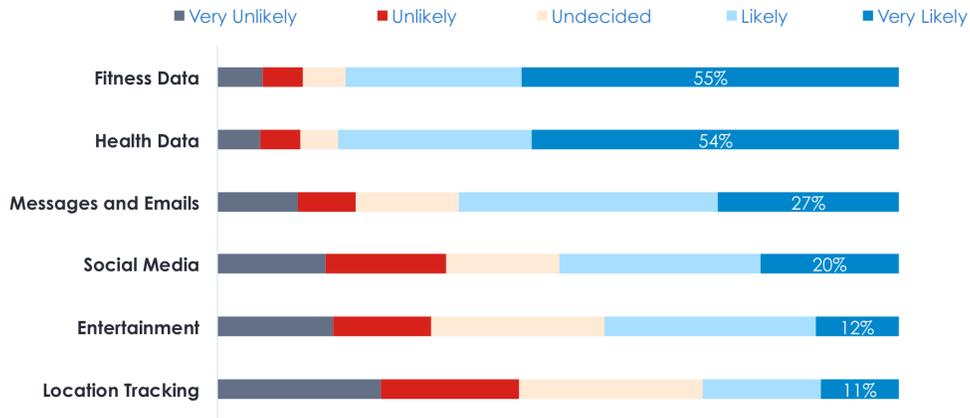


Figure 7. Purpose of usage

When it comes to the frequency of usage, as it is indicated in Figure 8, we see that about half of the current users use their devices on a daily basis. Moreover, the percentage of respondents who own a device and only wear it once a month is only at the level of 1-2%. Hence we found that once the respondents own a device and decide not to stop wearing it, they are more likely to use it on a daily basis.

Furthermore we see that the daily user percentage is higher for males while the percentage of respondents who stopped wearing it is higher for females.

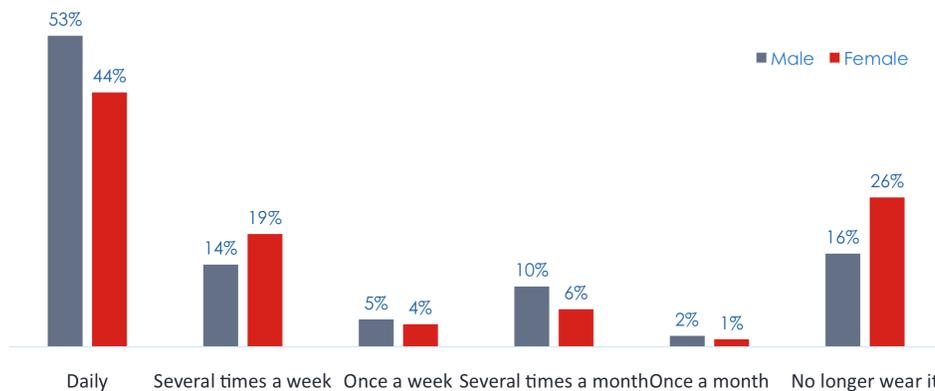


Figure 8. Frequency of usage for current owners

6.1.4 Data sharing and incentives

When we asked the respondents about the types of data they would be willing to share with their employers, given a list of choices from location and movement tracking to heart rate and blood pressure data, 33% of the respondents stated that they would not be willing to share any kind of personal data with their employers. 39% of the respondents agreed that their willingness would increase if these information are collected from a device provided by their employer, while 68% of them said that they would be more willing to share information if it is collected anonymously. Similarly, 68% of the respondents said they would be more willing if this information collection will lead to other benefits (see Figure 9).

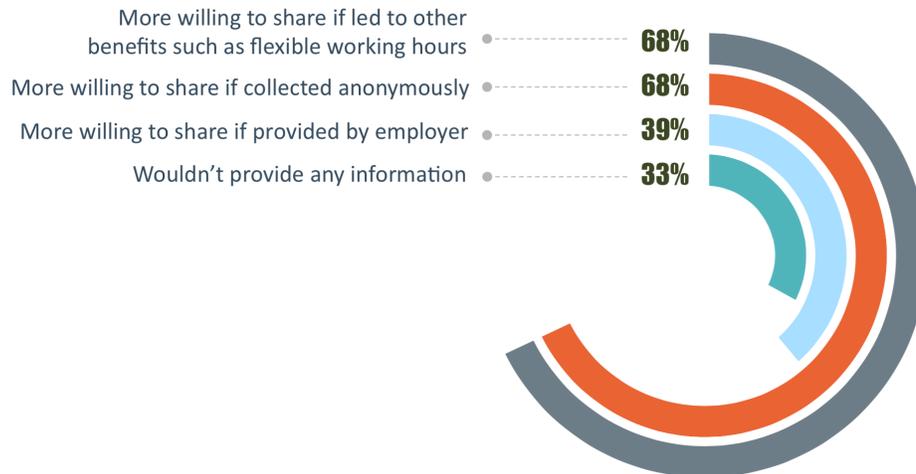


Figure 9. Willingness to share data

Then we asked the respondents to choose up to three benefits from a list of potential incentives. We did this to make the respondents compare each benefit with the rest and rank them to pick up to top three, rather than picking every possible incentive, in order to see the ones that they genuinely appreciate. Amongst all the potential incentives, we found that the more flexible working hours and a free subsidised device are the most favoured ones, with 49% of the respondents choosing these for their top three benefits. These are followed by reduced health insurance premium and gym membership with 37%, and other financial incentives, other wellness related incentives, and transport allowance with 27-30%, while healthier diet options and cycle to work incentives are the least favoured ones with only 7-15% (see Figure 10).

Which of the following benefits would increase your willingness of sharing data from a wearable device with your employer? (Choose maximum three)



Figure 10. Potential incentives to increase willingness to share data

Overall, the majority of the respondents appear receptive to the use of wearable technology, especially for fitness and health data tracking purposes, and they are likely to use it regularly. Furthermore, the adoption of this technology in the workplace and data collection through a wearable device is more favourable if it is done anonymously from a device provided by the employer and leads to other benefit. However there are still some barriers to adoption caused by employee concerns.

6.1.5 Barriers to adoption – Practical concerns

For most potential users, price is the single most important factor: about 68% of respondents who do not own a wearable piece are not willing to pay such high price for a small gadget. Another 31% of people argued that current devices do not provide material benefits, and that most of the functionalities that a wearable piece could provide can also be provided by their smart phones and other devices.

For people who used to own a wearable piece but already abandon it, the lack of material benefits becomes the top reason. It is suggested that current wearable producers need to provide more unique features to improve the stickiness of a wearable piece (see Figure 11).

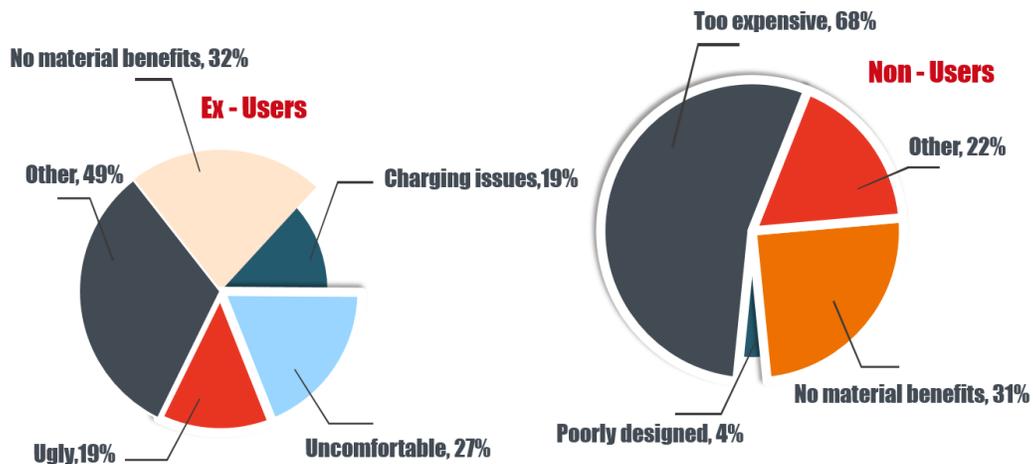


Figure 11. Potential practical barriers to adoption for both ex-users and non-users

6.1.6 Barriers to adoption – Privacy concerns

With regards to collecting data from wearable devices, as it is shown in Figure 12, most respondents are generally defensive and concerned about data misuse. For instance, about 79% of our respondents can relate to the statement of “I am concerned that my employers could use the data against me in some way”.

This may be explained by the Psychological Contract theory highlighted in the previous section: employees cannot be sure as to how would their employers use the data they contribute, hence when asked to share data, their psychological contract might breach.

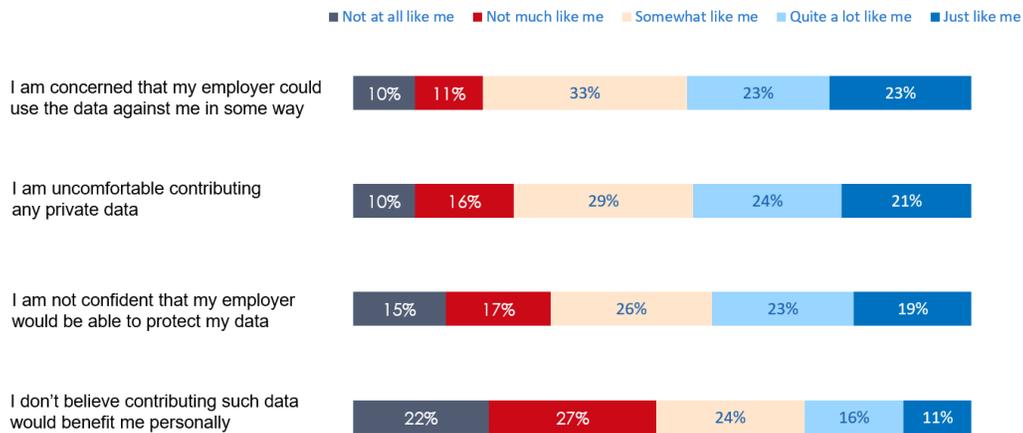


Figure 12. Privacy concerns prevail among respondents

6.2 Correlation and Regression Analysis

In the previous section, we mostly investigated summary statistics, wherein each survey question was analysed separated. In part 2, we take one step further and examine the relationship between demographic data and answers to specific questions.

6.2.1 Gender influences the willingness to share certain types of data

First, we found different genders have different implications on the specific types of data they are willing to contribute. Specifically, we ask both male and female respondents as to what type(s) of data would they be willing to share with their employers. The result indicates that 39% of male respondents would be willing to share their fitness data, whereas the figure for female respondents is only 27% (see Figure 13). (This difference is significant at the 0.05 level)



Figure 13. Percentage of respondents who are willing to share fitness data

6.2.2 Gender also mitigates the effectiveness of certain types of incentive

Next, we examine whether different genders also have different preferences with regards to incentives. We ask both male and female respondents to what degree would they be willing to contribute data if incentives such as reduced health

insurance premium, gym membership and flexible working hours are provided. And we found that 56% of the female respondents give responds that indicates a higher level of willingness of contributing data when it led to flexible working hours, whereas the figure for male respondents is only 44% (see Figure 14). (The difference is significant on the 0.05 level)

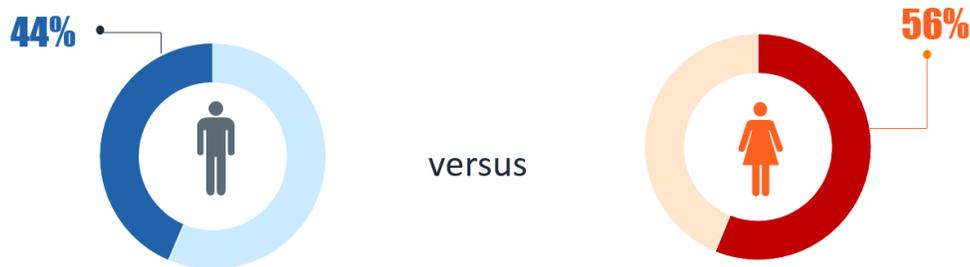


Figure 14. Respondents who indicate higher level of willingness given flexible working hours

6.2.3 Early adopters and the willingness to share data

We ask our respondents to what degree do they identify themselves as early adopters, i.e., people who embraces new technologies before most other people do. We also ask the same respondents to which degree would they be willing to share personal data with their employers in general. We then compare these two set of responds and found that the degree to which a respondent identifies himself/herself as early adopter is positively linked to his/her willingness to share. This has convinced us to pay more attention on early adopters when promoting wearables devices in the work place as they also have a higher willingness to share data.

Note: the notion of early adopter comes from the Diffusion of innovation theory proposed by Rogers.¹⁸ Rogers believes that adoption of a new product (i.e., "innovation") does not happen simultaneously in a social system; rather it is a process whereby some people are more apt to adopt the innovation than others. Specifically, Rogers separates consumers into five categories: innovators, early adopters, early majority, late majority, and laggards. We focus mainly on early adopter in this study as they are believed to have the highest degree of opinion leadership. They enjoy leadership roles, and embrace change opportunities. They are already aware of the need to change and so are very comfortable adopting new ideas as well as guiding the majority to the adoption (see Figure 15).

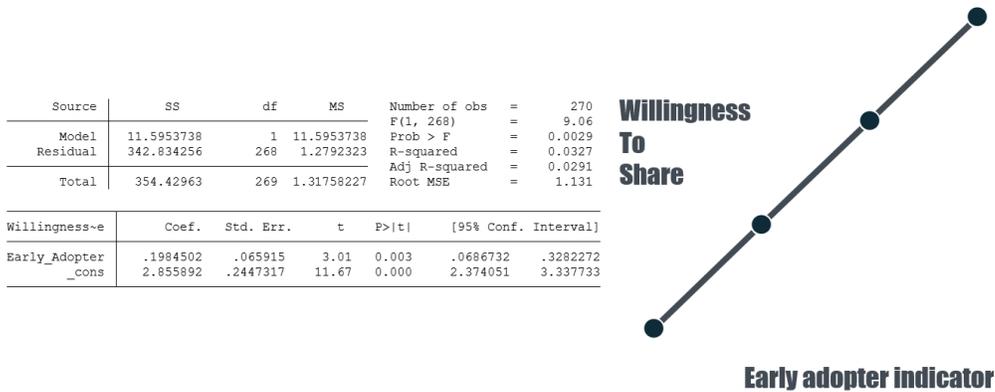


Figure 15. Early adopters show higher willingness to share data

6.2.4 Age and the effectiveness of incentives

Finally, we tested whether age has any impact on respondents' answers to specific questions. And we found that controlling for employment status, the older the responders, the less likely incentives would work. This may suggest that tailoring the incentives to employees with different demographical status is necessary (see Figure 16).

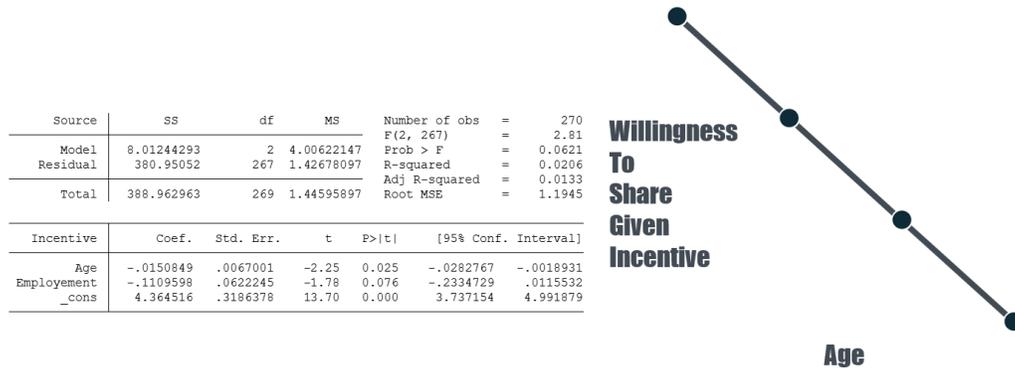


Figure 16. Age negatively mitigates the effectiveness of incentives

6.3 Qualitative Study – Interviews

In addition to the survey, semi-structured interviews were conducted with 15 participants. This was done with the intention of triangulating our survey data with another data collection method. More importantly, it also enabled us to gain a richer account of consumer insights and concerns around wearables in three distinct categories – awareness, usage and applications as well as privacy issues concerning data sharing.

Interviews revealed that while individuals followed the latest trends in wearables to varying degrees, several of them had concerns over the aesthetic and design aspects

and also mentioned certain inaccuracies with respect to sleep monitoring or steps taken. The interviews also reiterated our findings around the applications of wearables. Results reveal that more people use wearables to manage their wellbeing and fitness over other utilities.

When asked about future applications that users expect to see, an interesting suggestion was to enable work and home calendar syncing to the fitbit so it could remind us of things to do, or to send alerts via email when heart rates increase or decrease substantially.

Further, several interviewees noted that they would want written agreements or clearly drafted contracts from the employer before they would ever provide consent to share their data. Others felt that employers were already tracking when they arrived and left and this was the extent to which they would like to be monitored.

On the incentives front, there were mixed views. Some felt that incentives would not work on them because they were not ready to exchange their data for any incentive while others considered flexible working hours or even company merchandise or products to be attractive incentives. From the organization's perspective however, they noted that this would be a large investment that will have to be negotiated with the board based on quantifiable projections that are difficult to make due to device abandonment and lack of continued motivation amongst employees.

7 Conclusion

From our survey data and semi-structured interviews, four broad conclusions can be put forth. Firstly, there seems to be a high potential for wearables in the market because 81% of survey respondents were aware and interested to different degrees in wearables. However, there exists a significant gap between this level of interest and the commitment to the device once it is owned. This is revealed by the fact that only half of the identified users wear their devices everyday. Thus this raises concerns around device abandonment if organizations want to distribute devices to its employees.

Secondly, there is a huge focus on healthcare and fitness applications of wearable devices. 55% of our respondents use fitness trackers suggesting that the most attractive feature of wearables lies in its ability to monitor and track fitness. Other aspects such as enhanced connectivity and efficiency are yet to be utilized to its maximum potential.

Thirdly, people remain very guarded about their personal data and 33% do not want to share data of any sort with their employers. Moreover 80% of all respondents show some degree of concern over their private data being misused against them, suggesting that this would be a major barrier to overcome for firms looking to gain access to employee data.

Finally, there exists a range of different incentives that various employees respond to, and this factor is crucial in ensuring that employees are adequately encouraged to share their data. Specifically, women are more receptive to flexible working hours while young employees respond better to company subsidized products or vouchers than to reduced health insurance premiums.

8 Recommendations

Based on these conclusions, the following recommendations can be put forth to organizations that are considering the use of wearables in their workplace. Firstly, we strongly recommend that awareness around technology be built within organizations. Since most employees differ in their ability to use and enjoy technology, we believe that creating awareness around the use of wearables and its benefits can reduce the time it takes for the wearable to be accepted. This is also in accordance with the Diffusion Innovation theory, which suggests that any idea or product permeates the society over an extended period of time because people have different levels of acceptance for the product.

Secondly, we suggest that employers offer the option to opt in/opt out of using these devices to their employees. In the context of the office where psychological contracts of an often imprecise and unclear nature exist between employer and employee around mutual obligations of safety and trust, enforcing wearables could risk the danger of breaking these bonds. Such an unhealthy and unsafe environment often results in employee unhappiness and contributes to reduced productivity levels. Thus offering a choice could help circumvent this problem.

Further, we recommend that employers use health and wellbeing applications of wearables to encourage employees into using them. Since many of our respondents indicate using wearables primarily to track fitness, this ties in well with employee motivations as well and could have a profound effect on the positive environment at work. Moreover, huge costs related to absenteeism and presenteeism at the workplace can potentially be avoided if employee health and fitness are elevated both at the mental and physical levels.

Finally, we propose that organizations carefully understand the nature of work and demographics of their employees to design the right mix of incentives that will ensure that employees are properly rewarded and motivated to use wearables and contribute data. By offering a range of incentives that offer employees a choice, we believe both parties are better off in the long term.

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