

INFO5082: Seminar of Research and Research Methodology

Research Question:

Can flexible work arrangements improve productivity and job satisfaction?

Flexible working helps employers meet the changing needs of customers and staff. Employers have a 'duty of care' to protect employees from risks to their health and safety, which might include stress caused by long hours or the struggle to balance work and home life. It's important for managers to consider what flexible adjustments might be made to support staff who need to combine work with caring responsibilities and improve productivity.

Hypothesis: Employees who have flexible working hours will report greater job satisfaction than employees who work fixed hours.

Null Hypothesis: There is no relationship between working hour flexibility and job satisfaction.

Recent Studies:

1. In Sweden, for example, the government has tested workers to work six-hour days. Although the employees reported an improved quality of life, with less stress and more time to spend with their families, it was also an expensive experiment for the local council, who had to hire extra workers to make up for the shortfall in hours.
2. Iceland conducted a similar trial, allowing some Reykjavik city workers to reduce their working week by four or five hours. In that experiment, productivity continued at the same level, meaning costs remained the same as well. The employees also had greater work satisfaction and fewer days off sick.

Dataset:

The dataset contains annotations that are related to job satisfaction and employee performance.

| | A | B | C | D | E | F | G | H | I | J | K | L | M |
|----|------|-------------|------------------------------------|------------|----------------|-------|---------|----------|-------------------|-------------------------|-------------------------------|---|---|
| 1 | Year | Survey Ques | Survey Question Text | Don't Know | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Agree or Strongly Agree | Disagree or Strongly Disagree | | |
| 2 | 2018 | Q1-4 | I have received fair consideration | 9 | 21.9 | 25.7 | 22.1 | 11.3 | 10.1 | 47.6 | 21.4 | | |
| 3 | 2018 | Q1-3 | I have been mentored at work | 3 | 21 | 27.1 | 21.9 | 16.8 | 10.3 | 48.1 | 27.1 | | |
| 4 | 2018 | Q1-6 | The City's programs related to | 9 | 13.2 | 23.4 | 35.1 | 13.4 | 5.9 | 36.6 | 19.3 | | |
| 5 | 2018 | Q2-1 | The following adequately su | 20.3 | 11.7 | 22.9 | 34.1 | 7.9 | 3.2 | 34.6 | 11.1 | | |
| 6 | 2018 | Q2-2 | The following adequately su | 20.4 | 11.5 | 21.8 | 35 | 7.9 | 3.5 | 33.3 | 11.4 | | |
| 7 | 2018 | Q4-5 | I believe my opinions matter | 0.7 | 29.2 | 24.2 | 17.7 | 15.7 | 12.4 | 53.4 | 28.1 | | |
| 8 | 2018 | Q4-18 | Conflict in my work area is r | 6.8 | 17.3 | 27.7 | 21.7 | 12.8 | 13.7 | 45 | 26.5 | | |
| 9 | 2018 | Q4-20 | I believe exceptional job per | 3.3 | 19.6 | 30.3 | 16.2 | 15.7 | 14.9 | 49.9 | 30.6 | | |
| 10 | 2018 | Q5-2 | The amount that I pay for he | 10.5 | 18.9 | 35.5 | 18.3 | 12.3 | 4.6 | 54.4 | 16.9 | | |
| 11 | 2018 | Q5-5 | I think the amount I am paid | 3.8 | 19.2 | 38 | 14.4 | 15.5 | 9 | 57.2 | 24.5 | | |
| 12 | 2018 | Q6-4 | Communication between my | 11.5 | 11.9 | 32 | 22.7 | 15.3 | 6.7 | 43.9 | 22 | | |
| 13 | 2018 | Q6-10 | Employees in my departmen | 7.1 | 17.1 | 34.2 | 20.2 | 12.1 | 9.3 | 51.3 | 21.4 | | |
| 14 | 2016 | Q4 | I have received fair consider | 12.1 | 21 | 25.2 | 20.9 | 9.8 | 11.1 | 46.2 | 20.8 | | |
| 15 | 2016 | Q3 | I have been mentored at wo | 7.7 | 21.3 | 26.3 | 21.8 | 14.8 | 8.2 | 47.6 | 22.9 | | |
| 16 | 2016 | Q6 | The City's programs related | 13.1 | 14.2 | 24.6 | 32.8 | 10.9 | 4.5 | 38.7 | 15.4 | | |
| 17 | 2016 | Q9a | The following adequately su | 20.7 | 10.6 | 24.9 | 32.2 | 7.6 | 4.1 | 35.5 | 11.6 | | |
| 18 | 2016 | Q9b | The following adequately su | 24.3 | 9.9 | 19.2 | 36.7 | 6 | 3.9 | 29.1 | 9.9 | | |
| 19 | 2016 | Q19 | I believe my opinions seem t | 5.4 | 26.3 | 26.7 | 15.9 | 14 | 11.6 | 53 | 25.7 | | |
| 20 | 2016 | Q32 | Conflict in my work area is r | 12.6 | 16.7 | 28.6 | 17.8 | 12.1 | 12.2 | 45.4 | 24.2 | | |
| 21 | 2016 | Q34 | I believe exceptional job per | 9.9 | 17.7 | 26.4 | 16.6 | 16.7 | 12.7 | 44.1 | 29.5 | | |
| 22 | 2016 | Q42 | The amount that I pay for he | 14.6 | 14.5 | 33.4 | 17.5 | 14.8 | 5.2 | 47.9 | 20 | | |
| 23 | 2016 | Q45 | I think the amount I am paid | 9.4 | 12.2 | 33.3 | 15.1 | 19.7 | 10.2 | 45.5 | 29.9 | | |
| 24 | 2016 | Q52 | Communication between my | 12.4 | 10.5 | 29.9 | 25.3 | 14.7 | 7.1 | 40.4 | 21.8 | | |

As the number of observations in this particular dataset is very low. I am planning to create a survey through annotations.

Any suggestions regarding dataset is appreciated.

References:

1. <https://theundercoverrecruiter.com/flex-productivity-engagement/>
2. https://www.kaggle.com/rhuebner/human-resources-data-set#production_staff.csv