

When Qualitative Research Trumps Quantitative Research: How to Improve the Workforce

¹Wasita Boonsathorn and ²Arthur L. Dryver

¹School of Human Resource Development, ²School of Business Administration,
Bangkok, Thailand

Abstract: In the workplace, many statistical tests behind quantitative research examine averages. What happens when one of these averages is not satisfactory to management? How do management shift an average to improve their workforce so that the typical employee more closely resembles the star employee? Often in quantitative research outliers such as star employees are omitted and even when they are left in the data set they are hidden amongst the typical employees. The lack of explicit consideration of outlying star employees is coupled with the challenge of obtaining an adequate sample size of them. This study discusses the importance of studying outliers such as star employees for improving the workforce and the importance of qualitative research for doing so.

Key words: Data set, explicit consideration, star employees, work force, qualitative research, obtaining

INTRODUCTION

Outliers are by definition, a rare occurrence. There is ample documentation concerning their importance, yet insufficient evidence to indicate how their study would improve the workplace. Unexplored circumstances arise as new technology enters into the marketplace, meaning that the study of outliers is a changing, expanding and incomplete field (Needham, 1997). Other factors include non-quantifiable measurements such as happiness, peer motivation, passion and so forth. This begs the question: How are outliers relevant to the improvement in the workforce right now?

To reiterate the importance of this question, concerning investment an adage is: “buy low, sell high”; in the workplace an adage is: “work smarter not harder”. Obvious truths, yet when put into practice they are feats to accomplish. Without a clear path on how to “work smarter” people may often find themselves working harder instead. How then does a company get its workforce to “work smarter”? One possibility is the study of outliers which in this case represent star employees.

QUANTITATIVE DATA VERSUS QUALITATIVE DATA

What if 80% of the research is done by 20% of the employees? This refers to the Pareto Principle. “Vilfredo Pareto was a late 19th-century economist/sociologist who first noted and reported his observation

that about 80% of wealth was concentrated in about 20% of a population. This is the basis for what we now call the Pareto Principle” (Sanders, 1987).

This principle does not just apply to wealth (Marshall, 2013), it is extended to the workplace and the above example of 80% of the research done by 20% of the employees. It can be taken a step further as well (Marshall, 2013). This implies that actually, 64% of the work may be found to be done by only 4% of the employees. Now imagine if it were possible for a company to move their average worker and train them to be like the 4% of star employees?

To better grasp the process, consider that every day an employee has several hours of work-related reading to do. By definition, a star employee would be reading more efficiently. If speed were the only variable, then it is a question of increasing the typical employee’s reading speed. However, increasing one’s reading speed two to three times or more is not considered reading anymore but speed reading. As speed reading does not conform to reading only, practice alone does not lead to being able to speed read: it takes learning a new skill to do so.

Can the same be said about typing for example? What if the person types just using two fingers and looking at the keyboard, how much better can they get with just practice? They need to learn a new skill, like how to type using all their fingers.

Faced with working smarter, practice alone does not lead to better efficiency it does not lead to learning speed reading or typing with all ten fingers without looking at

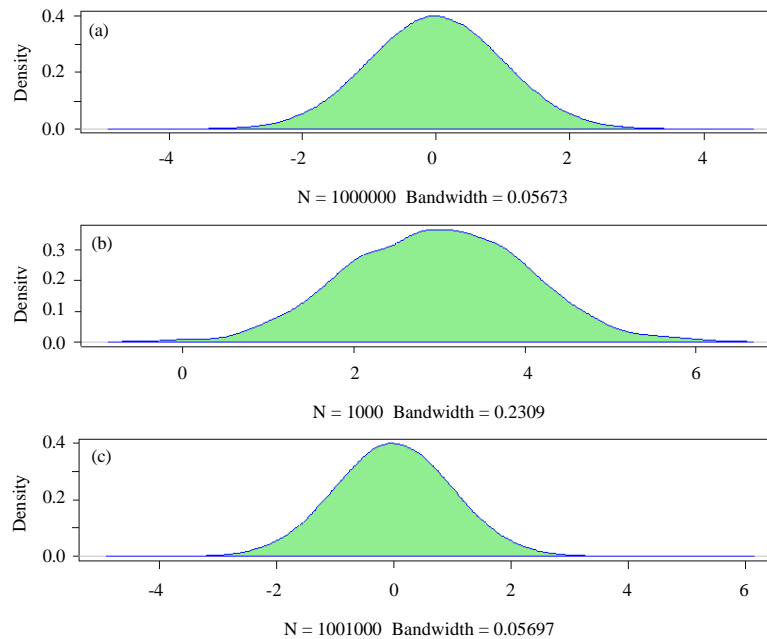


Fig. 1: How the masses can drown out the exceptional: a) 1,000,000 from a normal 0 1; b) 1,000 from a normal 3 1 and c) 1,001,000 from a combination of both

the keyboard. In order for that to take place, a new skill is needed which is dissociated from simply practicing or working harder; it has to be learned through experimentation.

Considering the many ways of learning through experimentation, it is even more important to study the outliers and their individual learning styles, their manner in which new skills are acquired, whether some skills are learned consciously while others are learned subconsciously and so forth. Yet in statistical data sets, these outliers are often not directly visible.

To illustrate this point, there are three density curves in Fig. 1. The first one illustrates the distribution of a million observations coming from a normal distribution with a mean of zero and a standard deviation of one. The second graph represents a normal distribution of a thousand people from a normal distribution with a mean of three and a standard deviation of one. Finally, the last graph is a combination of the previous two graphs. Looking at the groups separately, it is easy to see that the people come from different distributions. If this is thought of in terms of types of people, the second group could be thought of as operating at an entirely different level from that of the first. For example, the first graph would be speed readers while the second would be exceptionally fast readers. The third graph has the two groups combined. In this third graph, it can be seen how the second group with a mean of three could easily be mistaken for simply outliers or

exceptional gifted individuals or more detrimental still as simply people working very hard as opposed to people potentially having access to an additional skill or skills for performing task(s) which they may or may not be performing.

Now what if a company wants to improve their workforce in a certain area by studying their top performers, their 4% sample. If the company exists of 25 people, then that is a single person. If the company exists of 100 people, then that is 4 people. Clearly, there is not enough data to even consider a quantitative analysis. A researcher studying star employees at Small Medium Enterprises (SMEs) may find he or she has to sample over 100 companies to get even a small sample of data. Although, comparing groups of such a significant difference statistically, one may notice that the groups differ but would still be lacking as to the why, what, and how.

The testing of a difference that is such a small sample as say four would be enough is in itself not worthwhile. The real value is in the knowledge of how exactly the stars became stars. Back to the speed reading analogy, the real knowledge is in how to transfer the knowledge of the speed reader to enable others to speed read. This is where qualitative research comes in.

Social media is a specific technological factor that has been recently introduced into the workplace whose study has not been exhaustive (Keinanen and Kuivalainen, 2015). It has had an effect on intrapersonal relationships

as demonstrated through personal communication of employees outside of research and also through informal communication. Certain aspects such as frequency of communication can be measured however, other factors such as content, lack sufficient standards to be measured.

Transference of information has changed with new technology, making it easier and faster to communicate with people over distance. That is promising concerning the transference of skill sets from star employees to typical employees or evening in the acquisition phases of a new skill set as there are more tools available. More information is capable of being recorded, meaning an improvement in accuracy.

With the changing of technology so rapidly, one would expect the importance of obtaining new skills for becoming star employees or talents within a company to be even more important. Technology is even becoming more widespread in increasing learning and for the ensuring mastery of a subject. To fully understand how the learning was improved through e-Learning in-depth interviews were required (Boonsathorn *et al.*, 2014).

There are various studies and research with respect to high performance and successful individuals. One of the greatest findings about becoming successful is that a person does not have to sacrifice happiness for success. In fact when a person is happier and in a positive emotional state that person is more likely to succeed (Achor, 2010). In addition, “numerous studies have shown that having a robust social network can lead to more influence at an organization and financial rewards, including higher paying jobs and faster promotions” (Gielan, 2015).

CONCLUSION

Quantitative research still has a very important place within the research community. That said there are

just many situations where it falls short and has limitations. One of those places where the limitations are clear is in the fully understanding of star employees within a company. Those who most likely are not just working harder but most likely more importantly working “smarter”. Qualitative research can provide the information on exactly how to work smarter.

REFERENCES

- Achor, S., 2010. *The Happiness Advantage: The Seven Principles of Positive Psychology That Fuel Success and Performance at Work*. Crown Publishing Group, New York, USA. isBN:9780307591562, Pages: 272.
- Boonsathorn, W., D. Charoen and A.L. Dryver, 2014. Leveraging random number generation for mastery of learning in teaching quantitative research courses via an e-Learning method. *E. Learn. Digital Media*, 11: 231-249.
- Gielan, M., 2015. *Broadcasting Happiness: The Science of Igniting and Sustaining Positive Change*. BenBella Books, Dallas, Texas, USA. isBN:978-1-941631-30-0, Pages: 276.
- Keinanen, H. and O. Kuivalainen, 2015. Antecedents of social media B2B use in industrial marketing context: Customers view. *J. Bus. Ind. Marketing*, 30: 711-722.
- Marshall, P., 2013. *80-20 Sales and Marketing: The Definitive Guide to Working Less and Making More*. Entrepreneur Press, Irvine, California isBN-13: 978-1-59918-505-7, Pages: 231.
- Needham, G., 1997. Institutions changing under the force of new information technology. *Gener.*, 21: 11-14.
- Sanders, R., 1987. The pareto principle: Its use and abuse. *J. Serv. Marketing*, 1: 37-40.