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Global Asset Management

The power of teams in investment management

The RBC Emerging Markets Equity team

In many arenas a team will perform a task better than an individual: building a house, for example, or winning the Formula 1 World Driver's Championship, or putting a satellite into orbit. Where something multi-faceted is to be done, a team will be best. However, when the task at hand is not to do but to decide – as in investment management – the advantage of a team is less obvious.

> **"Alone we can do so little; together we can do so much." Helen Keller[1]**

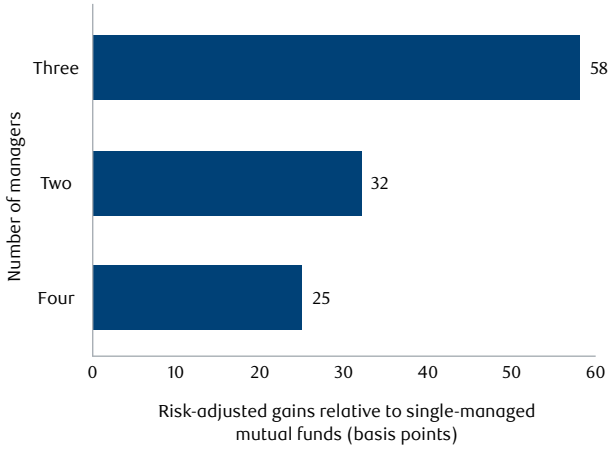
While the effective management of teams is a subject that has engaged theorists and academics for many years, the question of whether to have a team in the first place, particularly in the field of investment management, is a more recent one. Research by Saurin Patel and Sergei Sarkissian (2017) shows that the answer to that question is: yes, when it comes to returns, teams beat individuals[2].

In investment management the function of the team is simple – to make the best possible investment decisions – but the make-up which should flow from this starting point is less apparent. Do we want as many experts on the team as possible? Do we want academics, or experienced investors? Should we have a strict hierarchy, or should we aim for no hierarchy? How big should the team be? How relevant are the characteristics of the team members?

Here we look at the key factors associated with the creation of a team. Get these things right and the rest is fine-tuning; get them wrong and the rest is irrelevant.

> **"If you want to hire great people and have them stay, you have to be run by ideas, not hierarchy. The best ideas have to win." Steve Jobs[3]**

Exhibit 1: Team-managed funds relative to single-managed funds (annual returns)



Source: Saurin Patel and Sergei Sarkissian, "To Group or Not to Group? Evidence from Mutual Fund Databases," Journal of Financial and Quantitative Analysis. Data as at December, 2017.

Structure and hierarchy

In the opening chapter of the book Black Box Thinking, Matthew Syed describes just how serious the consequences can be of getting the team structure wrong. He recounts the story of a patient undergoing a routine sinus operation, when the patient's airway unexpectedly closes[4]. Syed describes the doctors huddling around the patient, attempting to re-open the airway. A nurse quickly realises that a tracheotomy will be needed and she fetches the equipment and informs the doctors that it is ready. Focused as they are, they do not respond and instead continue their attempts at less invasive solutions. The nurse is worried. She considers interrupting them again but reasons that consultants of their experience must surely have considered a tracheotomy.

[1] Quotesinvestigator.com. Helen Keller. [2] Saurin Patel and Sergei Sarkissian (2017), "To Group or Not to Group? Evidence from Mutual Fund Databases," Journal of Financial and Quantitative Analysis, 52(5). [3] Citatis.com, Steve Jobs Quotes. [4] Matthew Syed (2015), "Black Box Thinking," London, John Murray Publishers, 3-8.

Furthermore, since she is junior and they are the authority figures, it is not her place to interrupt them. Indeed, past experience tells her that her intervention would not be welcome. The doctors become more frantic. They do not notice the passage of time, nor the increasingly anxious nurse, and none suggests the tracheotomy that, on reflection, may have saved the patient's life.

The story has become a well-known case study for trainee doctors. The nurse's judgement was correct, but the structure of the team hindered communication and rendered the team unable to reach the best decision.

While structure describes the organisation of a team in the general sense, the hierarchy of a team refers specifically to its "layers" – how many there are and how distinct they are. For instance, a fund with a CEO, CIO, portfolio managers and analysts has four layers to its team structure. Research by Massimo Massa and Lei Zhang shows that every extra layer in an investment firm reduces average performance[5]. They argue that this is because layers tend to reduce communication, or even block it altogether. Some hierarchy is necessary for efficiency and accountability, but the lesson for investment firms is that less is more.

Psychological safety

Any time we say anything in front of our peers we take a risk. Some feel this risk more keenly than others, and some feel it so keenly they would prefer not to contribute at all for fear of being wrong, of appearing silly, of breaking the rules of the hierarchy, even of being mocked. Psychological safety is the confidence that one can contribute without fearing such repercussions.

Creating a culture of psychological safety is perhaps the most fundamental of all aspects of team management. It is common for individuals to defer to those "above" them in the hierarchy – that may be the highest-paid person, or the person who is thought to have the most experience in the field, or the one with the most senior job title. But a team will only operate at its best when all members say what they think and feel comfortable enough to share information that others may not have (Gallagher, 2012)[6].

Collective intelligence

Psychologists use the term "collective intelligence" to represent the cognitive ability of a team as a whole. This is not a summation of the intelligence of the individual members, but a measure of the team's intelligence as if it were an organism in itself.

Anita Woolley, a professor of organisational behaviour at the Tepper School of Business at Carnegie Mellon University, created a means of testing collective intelligence[7]. She discovered that a high collective intelligence was not explained by a high average IQ of the team members, nor by having a single member with an unusually high IQ. Instead she found that good communication was a feature common to teams with high collective intelligence. Teams with balanced, open and constructive communication performed better than teams that deferred to those members who were deemed more intelligent, or who were socially dominant.

[5] Massimo Massa and Lei Zhang (2008), "The Effects of Organizational Structure on Asset Management," Working Paper, Finance Department, INSEAD.
[6] Deb Gallagher (2012), "The Decline of the HPPO (Highest Paid Person's Opinion)," MIT Sloan Management Review Blog. [7] Anita Williams Woolley, Christopher F. Chabris, Alex Pentland, Nada Hashmi, and Thomas W. Malone (2010), "Evidence for a Collective Intelligence Factor in the Performance of Human Groups," Science, Vol. 330, October 29, 686-688.

Experts versus informed individuals

The natural first step when assembling a team is to consider the problems that are likely to be faced and to hire experts in those fields. But, in the arena of investment management, research indicates that this approach is likely to add little value and may even harm a team's performance, with experts performing no better than informed individuals, and worse than groups, when making economic predictions.

Philip Tetlock, a psychologist at the University of Pennsylvania, studied experts' predictions and concluded that "People who devoted years of arduous study to a topic were as hard-pressed as colleagues casually dropping in from other fields to affix realistic probabilities to possible futures."[8] He found that "savvy readers of high-quality news sources" achieved similar sophistication.

The problem with turning to experts is the possibility that this will undermine the team dynamic. Experts are likely to talk more during team meetings, and their contributions are likely to be given undue weight. The balance of communication across the team takes a hit, psychological safety reduces, and the performance of the team suffers (Franz and Larson, 2002)[9].

Unshared information

The real value of psychological safety lies in the role it plays in eliciting unshared information. Among any group there is a mix of information: some of it known by all members, some by some members, and some by only one person. For best performance the entire team should consider all relevant information, but research shows that teams often miss much of this unshared information.

In the 1980s, Garold Stasser and William Titus conducted a study in which they asked groups of four to select a candidate for president of a student body[10].The study was set up so that candidate A had the best profile. In the first round Stasser and Titus shared all relevant information across the group. The teams chose candidate A 83% of the time. In the second round the sum of all the information still showed candidate A as the strongest candidate, but this time each member of the group was given only a portion of the total information. Some of the information each person received was shared across the group, and some was given only to that individual. The shared information made it appear that candidate B was the better candidate, while a pooling of all the shared and unshared information would have shown that candidate A was the best. In the second round the groups chose candidate B 71% of the time. They placed undue weight on the shared information and failed to fully share the unshared.

When unshared information stays unshared the quality of decisions deteriorates. Deference to perceived experts is one (of many) reasons unshared information may be withheld.

[8] Philip E. Tetlock (2005), "Expert Political Judgment: How Good Is It? How Can We Know?", Princeton, NJ: Princeton University Press, 54-56. [9] Timothy M. Franz and James R. Larson, Jr. (2002), "The Impact of Experts on Information Sharing During Group Discussion," Small Group Research, Vol. 33, No. 4, August 2002, 383-411. [10] Garold Stasser and William Titus (1985), "Pooling of Unshared Information in Group Decision Making: Biased Information Sampling During Discussion," Journal of Personality and Social Psychology, Vol. 48, No. 6, 1467-1478.

Diversity

Cognitive diversity

The term "cognitive diversity" captures, among other things, differences in education, experience, information, and abilities. Research shows that a cognitively diverse group has a wider array of problem-solving tools at its disposal and thus will outperform a group of people who think alike, who will approach problems in similar ways and therefore have a narrower range of options (Bär, Niessen, and Ruenzi, 2007)[12].

In his book Rebel Ideas, Matthew Syed highlights the value of cognitive diversity in three wonderfully simple diagrams[13].

The rectangle represents what he calls the "problem space" – this is the arena in which decisions need to be made. The circle represents Jessica, a highly intelligent analyst. In this example, despite Jessica's expertise, the large majority of the problem space remains uncovered. Jessica knows a lot, but not everything. Nor does she have the ability to see the problem from one angle one minute, then from an entirely different angle the next.

> **"Diversity: the art of thinking independently together." Malcolm Forbes[11]**

In the second example the team has been populated with experts. They are all highly intelligent, but they share with Jessica similar knowledge and a similar way of approaching problems. Perhaps they have taken similar educational routes, have had similar work experience, and grown up in similar cultures. Despite their expertise and average IQ, most of the problem space remains uncovered.

The third example shows the value of cognitive diversity. Jessica has now been joined by people who not only know different things but, more importantly, think in different ways. The collective intelligence of the team may increase even if the average individual intelligence is lower. Syed labels this Rebels vs Clones. Rebels have covered the problem space in a way that Clones never could. Good communication remains key but, all other things being equal, the Rebel-populated team will have a far higher collective intelligence.

Exhibit 2: An intelligent individual

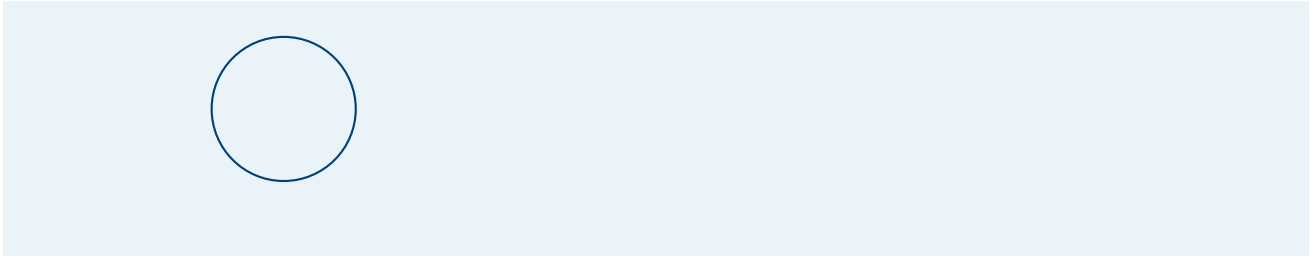


Exhibit 3: An unintelligent team (a team of clones)

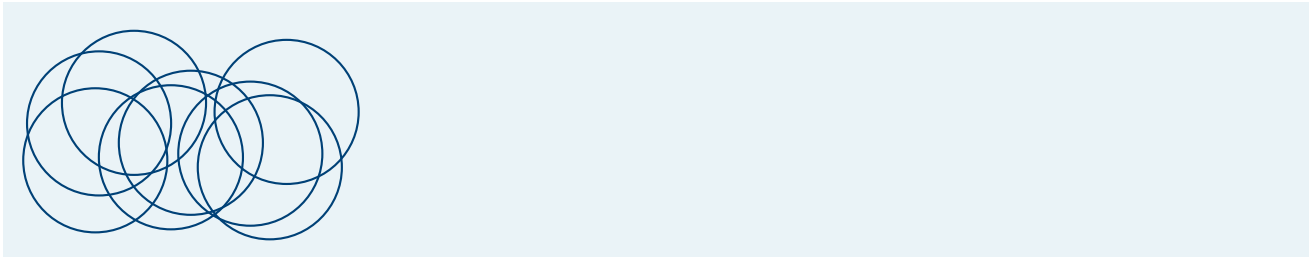
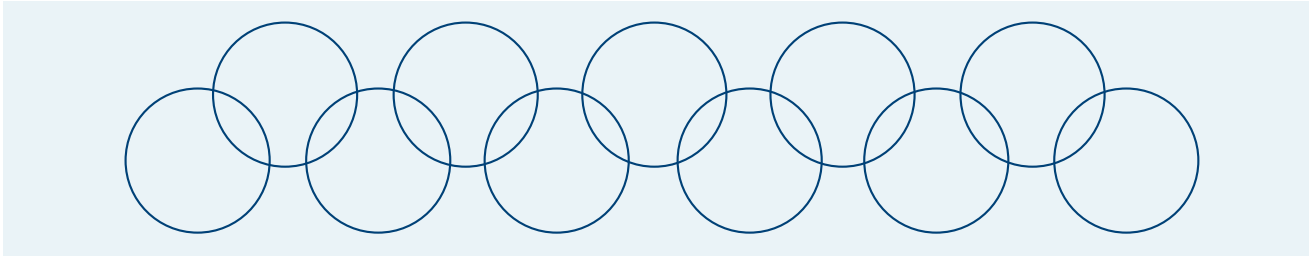


Exhibit 4: An intelligent team (a team of rebels)



Source: Rebel Ideas, Matthew Syed. Published September, 2019.

[11] Quotes.net. Malcolm Forbes. [12] Michaela Bär, Alexandra Niessen, and Stefan Ruenzi (2007), "The Impact of Work Group Diversity on Performance: Large Sample Evidence from the Mutual Fund Industry," Center for Financial Research Working Paper No.07-16. [13] Matthew Syed (2019), "Rebel Ideas," London, John Murray Publishers, 48-56.

Social category diversity

The research on cognitive diversity is unequivocal: properly managed, it's a good thing. So how is it achieved? This is where social category diversity may play a role. Social diversity is what tends to spring to mind for most people at the mention of diversity: differences in age, race, gender, religious beliefs, and sexual orientation.

Whilst a desire to increase social category diversity is understandable from an ideological point of view, will it improve the team's performance?

There is some evidence that social category diversity and cognitive diversity are related, so where social category diversity stands as a proxy for cognitive diversity an increase may improve team performance. Research into this area has grown in recent years. In one study, cited by Syed in his book, an increase in racial diversity of one standard deviation increased productivity by more than 25% in legal services, health services and finance (Sparber, 2003)[14]. Other studies have shown similar benefits arising from increased gender diversity.

Exhibit 5: Variables and proxies for social category and informational diversity

	Social category		Informational
Variables	▪ Gender ▪ Age ▪ Race ▪ Ethnicity ▪ Religion ▪ Sexual orientation	**Variables**	▪ Education ▪ Experience ▪ Functional knowledge ▪ Expertise ▪ Training ▪ Abilities
Proxies	▪ Gender ▪ Age	**Proxies**	▪ Education ▪ Industry

Source: Source: Karen A. Jehn, Gregory B. Northcraft, and Margaret A. Neale, "Why Differences Make a Difference: A Field Study of Diversity, Conflict, and Performance in Workgroups," Administrative Science Quarterly, Vol. 44, No 4, December 1999, 741-763. Also, Michaela Bär, Alexandra Niessen, and Stefan Ruenzi, "The Impact of Work Group Diversity on Performance: Large Sample Evidence from the Mutual Fund Industry," Center for Financial Research Working Paper No. 07-16, September 2007.[15]

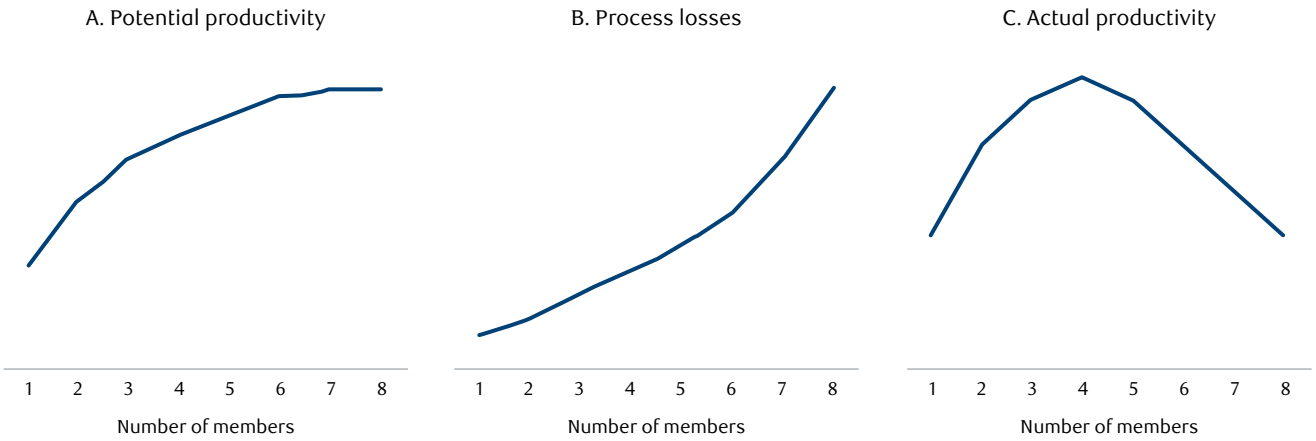
Team leadership

The role of the leader is essential. In the book Making Decisions That Matter, by Kathleen Galotti, perhaps surprisingly, shows that the most effective leaders are those who focus on process rather than outcome[16].The best decisions are not necessarily those with which a leader agrees, but those which have been reached by a team operating at its best.

A "participative" leader coaxes more information to the surface and, as a general rule, gets better decisions from his or her team. A "directive" leader, that is one in the habit of pushing for a certain position early on, only gets good decisions from his or her team where he or she is in possession of specific insight. Where he or she is not, decision-making suffers.

[14] Sparber (2003), "Racial Diversity and Aggregate Productivity", Florida and Gates "Technology and Tolerance: The Importance of Diversity to High-Tech Growth", Research in Urban Policy, 9:199-219. [15] Karen A. Jehn, Gregory B. Northcraft, and Margaret A. Neale (1999), "Why Differences Make a Difference: A Field Study of Value Diversity, Conflict, and Performance in Workgroups," Administrative Science Quarterly, Vol. 44, No. 4, 741-763. [16] Kathleen M. Galotti (2002), "Making Decisions That Matter: How People Face Important Life Choices", Mahwah, NJ: Lawrence Erlbaum Associates, 137-138.

Exhibit 6: Actual productivity is potential productivity less process loss



Source: J. Richard Hackman, Leading Teams: Setting the Stage for Great Performance (Boston, MA: Harvard Business School Press, 2002).[18]

Size

Do many hands make light work, or do too many cooks spoil the broth? In 1913 Max Ringlemann, a French engineer, conducted an experiment. He asked individuals to pull on a rope and measured their effort with a strain gauge. He then asked several people to pull on the rope at once. He discovered that individual effort reduced when pulling as a group and that the effect was greater the larger the group became. The term "social loafing" describes this phenomenon and the theory is that each individual in a group feels their contribution to be less determinative than when they are working alone and that others will pick up the slack.

> **"You've got to give great tools to small teams. Pick good people, use small teams and give them great tools so that they are very productive in terms of what they are doing." Bill Gates[17]**

As the group size increases, therefore, it is likely that individual effort will decrease, efficiency will reduce and each new member will bring a diminishing return. Ultimately, the benefit from any added cognitive diversity may be lost completely.

Conclusion

Google embarked on a project called Aristotle, an attempt to find the common attributes of its most successful teams (Rozovsky, 2015)[19]. Much to its surprise, two years later the full might of Google's analytical power had failed to find any discernible commonalities in the composition of its most successful teams. Instead, the project revealed that who is on the team matters less than how the members work together. Google listed the following social factors, in order of importance, as being present in its most successful teams:

1. Psychological safety
2. Dependable members
3. Clarity of roles and purpose
4. Work that members found personally meaningful
5. Work that members believed mattered outside of their team

More recent research would add to this list the value of cognitive diversity. Picking academics, or individuals with a stellar IQ, or recognised experts in the field, is of less value than getting these things right.

It is more important to be small enough to be flexible, create an atmosphere of sharing, and have the cognitive diversity to fully cover the problem space. Building and leading an effective decision-making team is more an art than a science, and leaders of investment management teams should focus more on the 'how' than on the 'who'.

We hope you enjoyed our research insights. For further information please visit the RBC Emerging Markets Equity Team Site.

[17] AZQuotes.com. Bill Gates. [18] Richard Hackman (2002), "Leading Teams: Setting the Stage for Great Performance", Harvard Business School Press, 117.
[19] Julia Rozovsky (2015), "The five keys to a successful Google team," by re: Work. Available at: rework.withgoogle.com/blog/five-keys-to-a-successful-google-team/

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