Challenges in Managing Amoeba Teams:

Evidence from Fast Fashion Industry

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Abstract

Many companies turn agile in response to the rapid changes in market, technology, and workforce. An agile organization consists of many amoeba teams – small teams responsible for their own operation decisions and performances. We identify the challenges in managing amoeba teams based on evidences from a leading online fast fashion company. One challenge lies in achieving a desirable team structure with each team member assigned to a unique role: a designer, a marketing-sales operator, a support. The fully staffed (3-person) teams significantly outperformed the understaffed (2-person) teams that required shared roles. Furthermore, the reduction in productivity not only came from human capital constraint, but also team incentive design. Specifically, a regressive team bonus plan created disincentive for a 2-person team to accept the third member. Another challenge is on the bonus allocation among the team members to balance pay leadership with concern for parity. Among the 3-person teams, those with sales leadership (the marketing-sales operator receiving the highest bonus) significantly outperformed those with design leadership. This reflects the importance of market orientation in the fast fashion industry. However, pay disparity within a team undermined some teams' performance. Overall, these results underscore the importance of new management practices for agile organizations.

Key words: Agile organization, Amoeba teams, Team management, Incentive plan

The advances in information technology, including Internet and mobile devices, have accelerated the information exchange between sellers and buyers. As a result, online consumers have become increasingly impatient. Windows of opportunities to engage customers can disappear without a quick response.[1] Meantime, companies have improved the capability to collect data and predict market needs. However, the new information capability will not lead to improved profitability unless the companies adapt their internal organizations accordingly.[2] If information does not flow smoothly within an organization (e.g. from sales to design) or employees does not collaborate in a timely matter, a company cannot be data-driven in translating information into meaningful business outcomes such as new products for emerging needs or better inventory decisions to reduce backorders.[3]

The demand from the employees are also changing. In addition to faster turnover and shorter job tenure happening in the workforce, a recent CNBC report (March 5TH, 2019) shows that Millennials and Gen Z's are increasingly focused on self-development of skills and responsibilities, as well as flexible work roles. Such trend is likely to continue after the Covid-19 pandemic and work from home policies.

Many companies turned their organizations agile in response to the pressures from customers, employees, and technologies. Surveys conducted by Deloitte and McKinsey showed that 90% of senior executives considered going agile as their high priority.[4] A core feature of an agile organization is empowered teams with end-to-end accountability.[5] These teams are market-facing, each containing a small number of the specialists from critical functional areas and responsible for their own operational decisions and performances. Although the term "agile organization" became mainstream only in recent years with Jeff Bezo's famous "two pizza's rule" ("if a team couldn't be fed with two pizzas, it was too big"), similar concepts and practices have

existed much longer. A well-known example is amoeba management method pioneered by Inamori and implemented by approximately 700 companies including Kyocera and Japan Airlines.[6] [7] Amoeba management stipulates that the entire organization must be divided into small units ("amoebas") and each amoeba should be an independent accounting unit that can buy and sell. This enables and motivates the specialist employees within an amoeba team, e.g. a sales and a designer, to share information and reach quick solutions in response to the dynamic market. In contrast, in the conventional structure with function departments, the communications are often hampered by the need to go through the department managers.

The emergence of agile organizations and particularly the focus on small amoeba teams are expected to bring new challenges in team management. Common team management issues include team size, team structure, and incentive designs. Extant literature suggests that team size may have a curvilinear relationship with productivity that too few or too many members reduce performance. Large teams incur higher coordination cost, relational loss and motivation cost of social loafing, whereas small teams lead to more engagement, accountability and productivity. But how small can teams get and how to manage them effectively?[8]

Psychology research shows that 3-person groups are necessary and sufficient to perform better than the best individuals and 2-person groups on highly intellectual problems.[9] In fact, a surprising new study published in *Nature* finds that small teams (consisting no more than 3 person) do more innovative work than large teams do in science and technology. In the business world, small team management, though an increasingly popular concept, is lacking empirical evidence.[10]

Being small in size also means that each member counts, often with distinctive expertise and broad overlapping roles. On one hand, smaller team with deeper skill sets is usually more

lucrative in seeing the big picture than a larger group of specialists with narrow perspective; On the other hand, boundary in such small team setting is less clearly defined, and team members may fall into the "transparency trap" of reducing productivity and stalling innovation, especially when responding to an urgent need. [11]

Transparency also poses new challenges in incentive design. In typical agile/amoeba organizations, because incentives are calculated based on team performance and individual contribution term after term, team members have more knowledge and more anxiety on each other's salary over time than in traditional organizations. While pay disparity is common in most workplaces, it may have positive or negative impact on productivity. For example, a recent research shows that finding out their managers got paid more would make employees work harder than who did not find out the true salary due to aspiration effects, but finding peers get paid more would have a negative impact on the employee's effort and performance.[12]

Furthermore, research has shown that greater market instability and market presence increase the value of marketing expertise, while larger organizations, organization instability and competition decreases its value.[13] Therefore, as agile organizations respond to changing market demand much faster, one would expect that marketing expertise would play an important role in team performance.

All these factors combined, how should firms make all the amoeba teams reach their full profit potential? The management practices developed for the traditional business organizations may no longer be appropriate for the entrepreneurial organizations. Which of the conventional management practices would become the impeding factors to team success? What types of management problems would become more salient?

In this paper we follow the evidence-based approach to identify the management challenges using the internal records of a leading company in the online fast fashion industry. The company followed amoeba management method and divided the main division into 58 independent business teams each responsible for their own decisions and profits/losses. A full-staffed team has three members, each with a unique role (designer, marketing-sales operator, support). Each team was rewarded the team bonus according to their above-target performance and a regressive bonus scheme (decreasing bonus rates applied to higher brackets of sales). Each team's bonus was then allocated within the team and the member with the highest allocation percentage was recognized as the team leader. We examine the relation between team performance and team characteristics including team size, leadership, and pay disparity. Our analysis leads to two challenges:

1. *Staffing the teams to reach full potential*. On average the fully staffed (3-person) teams substantially outperformed the understaffed (2-person) teams by team-level and per-person sales. However, the understaffed teams made up more than forty percent of observations and understaffing was persistent over the entire year for many teams.

2. *Balancing team leadership with concern for parity in incentive design.* Among the fully staffed teams, those with sales leadership substantially outperformed those with design leadership. The value of sales leadership likely reflects the critical importance of motivating the sales operators in the fast fashion industry. However, as within-team pay comparison is very salient, a larger allocation disparity could undermine team performance by demotivating the member with lower bonus allocation.

We combine the knowledge in the company's compensation practices and insights from employee interviews to understand the challenges and provide possible solutions. The challenges

call for new recruiting and training practices. Assigning the specialists (e.g. designers, sales operators) to independent teams creates a rigid boundary and even conflicts between teams, making it more difficult to cover absent employees than in the traditional department structure. An entrepreneurial organization needs to develop a pipeline of talents, particularly the talents for the critical role (marketing-sales operators in the case of study) in anticipation of future turnovers. The challenges also call for a constant or progressive scheme for team bonus. The regressive bonus scheme has been commonly adopted in the conventional organizations where the employees are exposed to limited risks. However, this scheme is inconsistent with the risk-sharing culture of the amoeba organizations. Moreover, the regressive scheme disincentivized the two-person teams, especially those with design leadership, from accepting a new member to reach the full-staffed potential.

We next provide more details of the company under study, the methodology, and the results.

The Company and Amoeba Teams

Our study uses the data from a company in China's online fast fashion industry. Widely regarded as the "Zara of China", the company was ranked number one by Alibaba in online sales in the woman's apparel category. The company designed their products in-house, contracted out the production to a network of manufacturers, and sold their products through online channels only. The company enjoyed phenomenal growth in last ten years and the senior executive team attributed the success to the unique amoeba team structure.

Amoeba team structure

In the company each amoeba team operated like an independent business unit, making own decisions on product design and online marketing-sales operation, and were responsible for their

own profits and losses. Each team had their own physical spaces, sitting nearby in cubicles and communicating face to face. A fully staffed team consisted of *three* people, a designer, a sales operator, and a support. The other functional areas, including marketing and visual production, were organized by the conventional department system.

Insert Figure 1. A Diagram of Organization Structure

Role #1: Product design. The company offered fashion products for all four seasons: summer, fall, winter, and spring. The average shelf life of a product was 14 days. As common in the fast fashion industry, this company was a follower of the fashion trend. Their designers drew inspirations from a huge database of product designs. Successful designers often tested "sample designs" earlier in the process among their friends (and even customers) to get feedback before making orders. To achieve production efficiency and high supply reliability, the company maintained a large database of fabrics available to the designers.

To ensure that teams did not offer the same design, the company asked the team designers to submit their designs on an internal platform accessible to all designers. Given the lead time required for the pre-season production, the designers were required to submit their designs for the upcoming fashion season within a fixed window of time. They followed a first-come-first-serve basis, i.e., once a designer posted a design, the designer owned the design and others could not submit the same design. The division manager had the authority to resolve any conflicts between the designers.

Role #2: Marketing-sales operation. Each team's marketing-sales operator managed the team's online sales. During a fashion season, a team's sales operator decided what products to be available in the online shelf, which products to participate in the company-wide promotional events, and when to move some products to the discount channels. The sales operators constantly interacted with customers, monitored product sales, and checked market trends. The sales operators became particularly busy during the season-changing months - the time to handle remaining inventories of the old season and put on products for the new season.

Role #3: Support. The support person coordinated with the company's visual department in creating the shots for each product design. This involved identifying the right photographers and models and scheduling the work according to the designer's requests. The support person also worked with the production and logistics departments to schedule the production of design samples, pre-season orders, and in-season orders. This support person made sure that all stages of pre-season productions carried out seamlessly, and all the products ordered during the season available on time. Usually, an understaffed (2-person) team did not have a teammate designated for the support role. The designers and sales operators had to share the support duty.

Regulating the teams

The division manager regulated the teams through budget, inventory, and pricing decisions. First, the division manager decided the operating budgets for the teams to limit the risk. The budgets restricted the number of new products a team could introduce and the amount of inventory a team could carry. The size of budget typically increased with a team's past performances, thus reflecting the company's confidence in the team's ability in product design and sales operations.

The division manager monitored the product sales of all teams and identified the best-selling products. The teams were permitted to make additional orders for the best-selling

products one month into the season. For the re-orders, the designers could slightly modify the existing product designs to adapt to market trend. On the other hand, for those slow-moving items, the teams were encouraged to push the products and clear the inventories.

The company strictly followed the cost-based pricing policy with a fixed and uniform gross margin. Once a team decided the design and fabrics, the firm estimated the production costs and decided the retail prices according to the gross margin. Given the large number of SKUs, this transparent pricing process was easy to communicate and can mitigate unhealthy internal price competition.

Profit-sharing arrangement

The company rewarded each team according to the team's above-target profits and bonus rates. The firm calculated a team's above-target performance according to above-target (quota) sales, gross margin, team operating cost, and above-target inventory. A team's operating costs included the team's defect costs, sample production costs, visual production costs, and delivery costs. The emphasis on profit (rather than sales as commonly observed in sales compensation plans) was central to the Amoeba management philosophy of making each team as an accounting unit responsible for own profits.

The company determined a team's sales quota according to the team's tenure (number of months since the team's inception) and a seasonal index. The company divided team tenure into multiple buckets, and those teams in the upper tenure buckets were assigned higher sales quotas. The quota formula had three noticeable features. First, sales quota was measured in sales per person. Thus, an understaffed (2-person) team had a smaller quota than a fully staffed (3-person) team. Second, the level of sales quota increased with team tenure, but the increase slowed down after two years and eventually reached a cap after five years of team tenure. The pattern in sales

quota design reflects the management belief that the learning curve slowed down after two years

and became saturated after five years. Finally, the company adjusted sales quota by a season

index (winter, spring, summer, and fall). Season index ranged from one to two; the sales quota

for a team in the high season was twice as much as that in the low season.

The company offered a *regressive bonus rate scheme* that was standard for all the

teams.[14] The regressive scheme contained lower bonus rates for higher buckets of above-target

profits, ranging from 3% to 0.2%. The bonus scheme ensures that the total bonus earning always

increases with the amount of above-target profit. Although the bonus was much lower for the

higher buckets, the company believed that its employees earned more than the market level.

The team members shared the team bonus according to a pre-specified allocation. The

company's Human Resource department, along with the division manager, decided the allocation

percentage for the team members. The team member allocated with the highest bonus percentage

was generally perceived as the team leader. In deciding the bonus allocation, the company

considered each employee's attitude, ability, and contribution. Naturally, team size affected

bonus allocation. Members of understaffed (2-person) teams received a larger share of team

bonus than those in 3-person teams.

Challenges in Team Management

To examine the company's performance and identify the management challenges, we used the

company's internal records to construct a dataset with team-month level observations. The data

covers all 12 months of 2014 that corresponds to four fashion seasons. There were 58 teams and

640 observations; some teams were newly formed during the observation period and thus had

fewer than twelve observations. We will analyze the data to seek evidences for the managerial

challenges. In addition to the formal data, we have visited the company and interviewed managers. We have also interviewed team members, using personal interviews as well as formal surveys. These interviews provide useful insights into the understanding of the challenges.

Data and Analysis

Our original data came from two sources: sales transaction data from the company's main system and internal HR records on employee performance and compensation. Since the employee records were monthly, we aggregated the product SKU-level sales transaction data to month level. The internal record contains monthly information on teams, including number of team members, number of months since a team was created, each member's role in the team (design, operation, support), and the bonus allocation percentage for each team member. The team member with the highest allocation percentage was identified as the team leader. Role designation was straightforward for all three-person teams, a designer, a sales operator, and a support. But the designations for two-person teams were not as simple. The two-person teams typically had clear designation of the designer, except for one team in four months. In those cases, the sales operators were clearly the team leaders. There were 21 observations with two members both designated as the designer of the teams. In this case, we took the designer who had a higher commission rate as the team's leading designer.

Table 1 summarizes the descriptive statistics of the main variables. As we matched data from multiple sources, two variables, number of SKUs added during a month and commission rate, have some missing observations. On average, a team sold 12,972 units of products and generated RMB 1.162 million of revenue per month. This totalled to over RMB 800 million of the brand's product sales during the year and the average price per item sold was about RMB 90. Among 640 observations, there were 266 cases of 2-member teams and 333 observations of 3-

member team. The rest 41 observations had team size at one or four. Our conversation with the company indicates that single-member or four-member teams were transitional, for instance, when a new team was started or when an existing 3-member team recruited a new member in training. The company considered the 2-member and 3-member teams, which accounted for 94% of the observations, as stable. Our analysis focuses on 2- and 3-member teams.

Team experience ranged from one to seventy-one months. The team that was newly formed had experience equal to one. On average a team had operated for two and a half years. A team's commission rate disparity measures the range of commission rate within a team, i.e. the difference between the highest and lowest commission rate. The disparity ranges from zero when two team members equally share the team commissions to one when a team had a single member. Equal commissions were not uncommon among the two-member teams. The average of commission rate disparity was equal to 18.9%. As an example, if a three-member team divided team bonuses by 45%, 30%, and 25%, then the disparity would be 45% - 25% = 20%.

Table 1: Descriptive Statistics (Team-month Level)

	Number of observation	Mean	Std. Dev.	Min	Max
Sales (RMB,000)	640	1,162	987	34	13,300
Sales units	640	12,972	8,297	352	77,789
Team size	640	Frequency: 2 (264), 3 (333)		1	4
Team experience (month)	640	33.213	14.837	1	71
Commission rate disparity	633	0.189	0.183	0	1
Number of SKUs added	582	19.79	13.725	0	160
Discount Rate	640	0.101	0.0434	0.0238	0.214

On average, the teams added about 20 new SKUs each month. This ranged from zero when no new product was added to the online shelf during the month, to 160. Finally, the average discount rate was 10.1%, with the range from 2.38% to 21.4%.

To explore the challenges in team management, we examine the correlation between team performance and team characteristics. We have run a series of regression analysis with team monthly sales as DV and explanatory variables including team size, team leadership, and team pay disparity. The control variables including team experience, number of new SKUs, and discount rate, and month fixed effects. We include the regression results in Table 2, where Design Leader is an indicator that equals to 1 if the team's designer was the team leader and 0 if the sales operator was the team leader, 3-person Team indicator is equal to 1 if the team had 3 members and 0 if the team had 2 members, and Pay Disparity is the range of bonus percentages in allocation. For control variables, we present only the result for Team Experience which is a team characteristic. Not surprisingly, all else being equal, the more experienced teams produced a significantly more sales than the less experience teams. We checked the robustness to different DVs (monthly sales, the log transformation of monthly sales, sales units, sales rankings (ranking all teams from 1 to 58)) and alternative samples (excluding the months when a team experienced either addition or turnover). The results are very consistent.

Insert Table 2. Team Performance vs. Team Size, Leadership, and Pay Disparity

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We identify two managerial challenges from the results: fully staffing the teams and designing the right compensation plans. We next discuss each of the challenges.

Challenge #1: Staffing the teams to reach full potential

The regression results consistently show that the fully staffed (3-person) teams performed substantially better than the 2-person teams. For the difference of one extra team member, the monthly sales difference was about RMB 800,000. The fully staffed (3-person) teams where team members had clear role designations significantly overperformed those 2-person teams with at least one team member taking two different roles.

Table 3: Team Performance (2-person teams versus 3-person teams)

	2-person teams	3-person teams
Average sales (revenue, RMB)*	843,392	1,487,103
Average sales (units of products)*	10,002	16,022
Average ranking by sales revenue	34.5	19.9
Average ranking by sales units	34.11	20.2
Number of observations	266	333

For ease of interpretation, we provide the descriptive statistics in Table 3. On average, the 3-person teams outperformed the 2-person teams not only by monthly sales, but also by individual productivity. The average sales per person was RMB 421,696 for a 2-person team, 17.5% lower than RMB 495,700 for a 3-person team. The results are very similar when the performance is measured in the unit of sales. In terms of sales unit per month, on average a two-person team sold 5,000 units per person in comparison to 5,340 units per person for a three-person team. In terms of team rankings, on average a three-person team was ranked about 14 positions higher than a two-person team.

The dominance of 3-person teams over the 2-person teams reflects the substantial benefits of specialization over a small loss in coordination cost. In a 3-person team, individual roles are clearly defined by design and each team member works as a specialist. In contrast, a 2-person team is understaffed as two people need to fill three roles. In our observations of 2-person teams, either one or two people would take more than one role and work as a generalist. For instance, a designer also coordinated with visual department, and the sales operator coordinated with supply department. Such a change could significantly reduce the team's performance in product design and customer relation. A smaller team, on the other hand, could reduce the coordination cost within the team. However, unlike an organization with functional departments, the 3-person teams were already designed to minimize the coordination cost for quick and accurate response to the market. Thus, the gain in coordination should be negligible from the 2-person teams.

The results also imply that the company was far from achieving the full potential of the Amoeba organization. If we use the performance of full-staffed (3-person) teams as the efficient frontier, then the gaps with the 2-person teams are the unrealized potential. As shown in Table 3, there were 266 monthly observations of 2-person teams versus 333 observations of 3-person teams, a significant 44.4% of 2-person team months. The understaffing was primarily driven by the high turnover rate. First, the employees were mostly young, only a few years after graduating from the colleges. The turnover rates were naturally high for this age of employees due to high mobility and changing personal status. Second, Amoeba organizations are highly motivational, but also extremely stressful for many employees. Some of them decided to leave because of burnout.[7] Finally, the independent nature of the team structure causes inflexibility in staffing. In a conventional organization, all the specialists, e.g. sales operators, work within the same

15

department. This structure offers flexibility in staffing; for instance, when one sales operator leaves the company, the department manager can find another to temporarily cover up. However, under the Amoeba structure, a specialist in another team would be unwilling to help, nor would the other members of the team be willing to accept a specialist from the other team.

Managerial implications. Meeting the staffing challenge requires new practices in employee recruiting and training. In the data, some teams had two members throughout the entire year. This was partly because the company did not have the pipeline of competent specialists. Another reason for the persistent understaffing was the existing members' unwillingness to accept the third member. Adding a new and inexperienced member may reduce the team performance per employee. Moreover, the regressive team bonus scheme, which provided a diminishing bonus rate, reduced the team's incentive to increase sales. Furthermore, adding a third member could significantly reduce each team member's percentage share of team bonus. A back of envelope analysis using the average statistics from Table 3 indicates that the members of an average two-person team would be worse off adding the third member.

To fuel the organic growth of the amoeba organization, the company would need to develop a HR system to effectively and efficiently maintain a pipeline of design and sales talents. The regressive team bonus scheme, which is commonly adopted in traditional organizations, is not consistent with the culture of amoeba organizations. The regressive scheme is reasonable in many traditional organizations where the employees are exposed to very limited risks. In contrast, teams in an amoeba organization face much greater financial risks and should thus be rewarded for excellent performances, even if such outcomes are due to external reasons. A constant or even progressive bonus scheme (bonus rate increasing with sales achievement) would be more

consistent with the amoeba culture. In the context of staffing, such a scheme would motivate the 2-person teams to accept the new member and thus help these teams to reach full potential.

Challenge #2: Balancing the leadership with equity in incentive design

An employee's compensation depends on the size of team bonus determined by the regressive team bonus scheme and the bonus allocation percentage within the team. The division manager worked with the HR department to decide the allocation for each team. The allocation decision has two conflicting goals: leadership and equity. On the one hand, the teammate with the highest allocation percentage was implicitly regarded as the team leader. Monetary compensation, in addition to earning economic values, reflects the recognition of an employee's contribution to team performance. Thus, the allocation for the team members should be differentiated and the team leadership should be identified according to the relative contributions from the team members. On the other hand, the bonus allocation creates pay disparity within a team. Team members with lower allocations perceive smaller return from their efforts and thus can be more reluctant to collaborate or expend extra efforts when needed. Such impediment to efforts would reduce the team's performance.[1516] The problem of pay disparity is not unique to the amoeba organizations but it definitely becomes much more salient within the small teams.

Design or sales team leadership? Since the design and sales operation are two primary team roles, all teams were led by either a designer or a sales operator. Designers are most familiar with the product features and they lead the teams in product development. A team cannot succeed in a season without its designer creating some best-selling products. During the season the sales operators become more prominent as they interact with the customers and know the market feedback. A team's success depends on correctly sensing the market trend and quickly

responding with the adjustment in product modifications and reorder decisions.

Figure 1 shows the average monthly sales by team size and leadership. On average the teams with sales leadership outperformed those with design leadership, but the difference is significant only for 3-person teams. For these teams, the teams with sales leadership had monthly sales significantly and substantially higher than those with design leadership (RMB 1,758,000 vs. RMB 1,369,000, 28% difference, p-value<0.01). But the difference among the two-person teams (RMB 797,000 vs. RMB 869,000) is much smaller and statistically insignificant. These results, the size, direction, and statistical significance, are all consistent with regression results in Table 2.

Figure 1. Team sales (RMB) vs. Team leadership
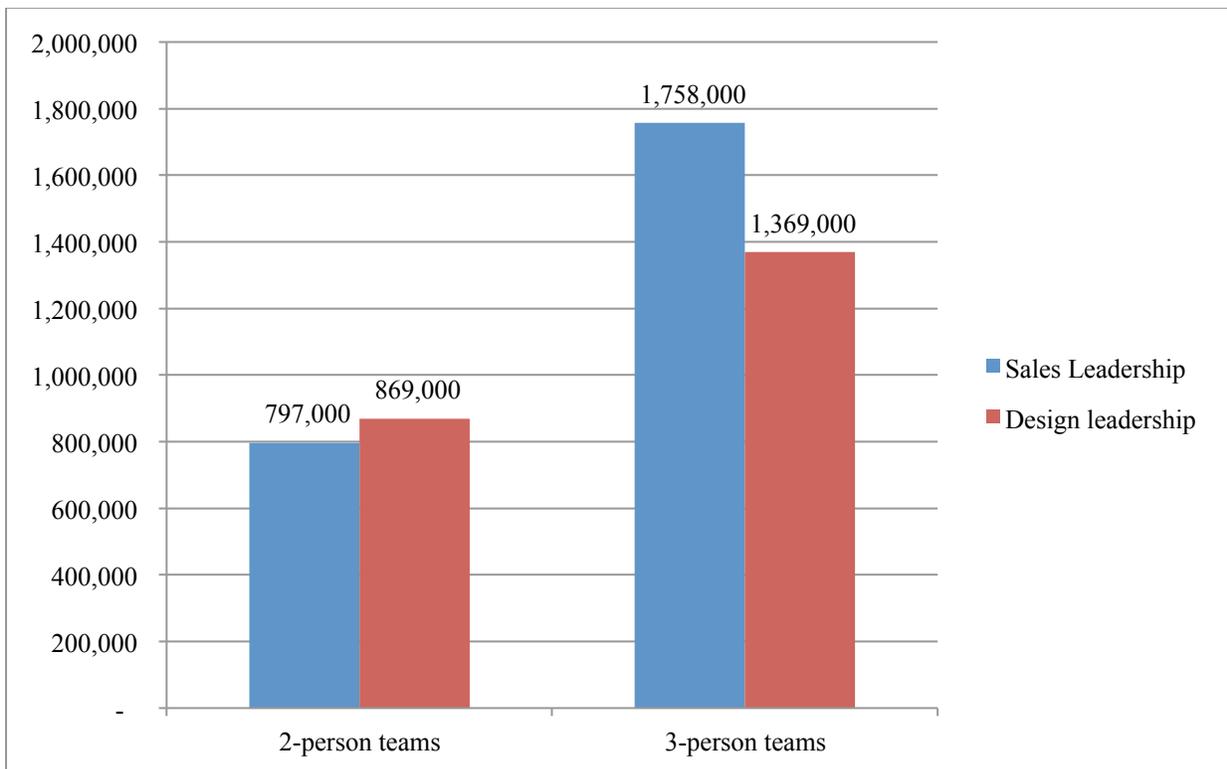
The results indicate that when the teams were fully staffed with three specialists, teams

with sales leadership substantially outperformed those with design leadership. The dominance of the sales leadership might be specific to this industry. First, in the quick fashion market, the product designs are mostly imitative. The success of a team primarily depends on the ability to quickly identify the market trends and make the right adjustments in the subsequent weeks. In other words, the functional role of sales operation is more critical to the success. Second, given the large number of SKUs offered, it is inevitable that some product designs will not be successful. A team needs to identify such products in a timely manner and clear the inventory. Constantly monitoring the market trend and product performance requires tremendous amount of efforts on the daily basis. Moreover, in the e-commerce world, connecting with the impatient customers requires patience and energe. Customer reviews and word of mouth are critical to the success of brands and team's customer relationship. Inducing these efforts require a large share of bonus for the sales operators. Thirdly, the prominence of online sales role in this industry may have attracted high-caliber sales operators to the company. In contrast, high-caliber designers might be less interested in joining this industry. This can further expand the contribution gap between these two roles in the organization.

Is team performance related to pay disparity? We compute the pay disparity by the range within a team, the difference between the highest and lowest allocation percentages. For instance, for a 3-person team allocation (30% - Design, 50% - Sales, 20% -support), the pay disparity is 50% - 20% = 30%. We rank all the teams by the size of pay disparity, and label the top third as Large Disparity, the bottom third as Small Disparity, and the middle third as the benchmark. In the regression analysis shown in columns (3) and (4) of Table 2, we include two indicator variables for Small Disparity and Large Disparity. The regression results show positive and weakly significant effect for Small Disparity, but insignificant effect for Large Disparity. Thus, given all

else being equal, those teams with a small pay disparity earned more monthly revenues of RMB 167, 324, in comparison to the teams with a medium and large disparity. The results are robust when excluding the observations with changes in team members.

The results offer some (weak) evidence that a team's performance could benefit from a very small disparity. In a small team, pay inequity is very transparent and salient to the teammates. With small income disparity, the teammates perceive the compensation as virtually equal. Thus, the disparity matters only to the extent that a team's members can be perceived as equal based on bonus allocation percentages.

Managerial implications. Despite the benefits of sales leadership discussed above, not all the company's 3-person teams were led by the sales operator. As the company was growing and new teams were formed, they created some 3-person teams consisting of an experienced designer and a less experienced sales operator. Given the same level of total team experience, on average a team led by a more experienced sales operator outperformed those led by a more experienced designer. Continuing the suggestions for the first challenge, the company should proactively recruit and train the new employees in anticipation of turnovers. Moreover, this effort should put greater emphasis on the sales operation role.

Among the two-person teams, however, team performance is no longer significantly related to the leadership role being sales versus design. Since each team member's role turns to be more general and less specialized, the comparison in their relative contributions becomes ambiguous. As a result, the effects of leadership designation discussed earlier are no longer salient. As an interesting connection to the first challenge, those 2-person teams with design leadership were more likely to persist. For such a team, the designer-leader would be even more likely to reject a new member due to the prospect of a big loss in the bonus allocation percentage.

Transitioning such teams to a 3-person structure to reach the full potential would require additional considerations.

Table 2. Team Performance vs. Team Size, Leadership, and Pay Disparity

	All Observations				Months without change in team members	
	(1) *Sales*	*(2)* *log(Sales)*	*(3)* *Sales*	*(4)* *log(Sales)*	*(5)* *Sales*	*(6)* *Sales*
Design Leader	-379, 404*** (-3.657)	-0.14** (-2.270)	-375, 616*** (-3.598)	-0.15** (-2.381)	-357,673*** (-3.060)	-334,478*** (-2.841)
3-person Team	809, 590*** (5.556)	0.59*** (6.559)	736, 804*** (4.947)	0.54*** (5.913)	833,470*** (5.005)	750,440*** (4.301)
2-person Team× Design Leader	449, 592*** (2.657)	0.23** (2.243)	376, 314** (2.188)	0.19* (1.772)	443,084** (2.329)	363,955* (1.854)
Team Experience	10, 294*** (3.447)	0.01*** (5.416)	9, 913*** (3.307)	0.01*** (5.142)	10,319*** (3.060)	10,480*** (3.104)
Small Disparity			167, 324* (1.934)	0.09 (1.611)		165,035* (1.716)
Large Disparity			-25, 133 (-0.220)	-0.10 (-1.463)		90,111 (0.627)
Constant	501,136*** (3.389)	13.14*** (144.649)	497, 225*** (3.153)	13.18*** (136.390)	498,680*** (3.029)	448,115*** (2.590)
No. of obs.	599	599	599	599	509	509
R-square	0.144	0.226	0.151	0.237	0.141	0.146

Note: t statistics in parentheses.

   * p<0.10; ** p<0.05; *** p<0.01

Reference

[1] Solis, B. 2017. "Impatience is a virtue: How the on-demand economy is making mobile consumers impatient." *Forbes*. Nov. 20.

[2] Day, George and Paul Schoemaker. 2016. "Adapting to fast-changing markets and technologies." *California Management Review*. 58 (4). 59-77.

[3] McElheran, K and E. Brynjolfsson. 2016. "The rapid rise of data-driven decision making." *American Economic Review*. 106 (5). 133-139.

[4] Denning, S. 2019. "Understanding Fake Agile." *Forbes.* May 23, 2019.

[5] Aghina, W., Ahlback, K., Smet, A., Lackey, G., Lurie, M., Murarka, M., and C. Handscomb. 2018. "The five trademarks of agile organizations." *McKinsey Report*, Jan 22, 2018. (McKinsey.com)

[6] Inamori, Kazuo. *Amoeba Management: The Dynamic Management System for Rapid Market Response*. 2012. Productivity Press.

[7] Adler, R. W. and t. Hiromoto. 2012. "Amoeba management: Lessons from Japan's Kyocera." *MIT Sloan Management Review*. 54 (1). 83-88.

[8] Mueller, Jennifer S. 2012. "Why individuals in larger teams perform worse?" *Organizational Behavior and Human Decision Processes*, 117 (1), 111-124.

[9] Laughlin, P. R., Hatch, E. C., Silver, J. S., & Boh, L. 2006. "Groups perform better than the best individuals on letters-to-numbers problems: Effects of group size." *Journal of Personality and Social Psychology, 90* (4), 644–651.

[10] Wu, L., Wang, D., and Evans, J. A. 2019. "Large teams develop and small teams disrupt science and technology." *Nature* 566, 378–382.

[11] Accessed https://hbr.org/2015/06/75-of-cross-functional-teams-are-dysfunctional#comment-section

[12] Cullen, Z. B. and R. Perez-Truglia. 2018. "The Motivating (and Demotivating) Effects of Learning Others' Salaries." *Harvard Business Review*. Oct 25, 2018.

[13] Pasa, M. and S. Shugan. 1996. "The Value of Marketing Expertise." Management Science. 42 (3), 307-474.

[14] Zoltners, A., Sinha, P., S. Lorimer. *The Complete Guide to Sales Force Incentive Compensation*: *How to Design and Implement Plans That Work.* 2006. Harper Collins Publishing.

[15] Frick, B., Prinz, J. and K. Winkelmann. 2003. "Pay inequalities and team performance: Empirical evidence from the North American major leagues." *International Journal of Manpower*. 24 (4). 2003.

[16] Akerlof, G. 1982. "Labor contracts as partial gift exchange." *Quarterly Journal of Eco*nomics. 97 (4). 543-569.