Conditions Enabling Effective Multiple Team Membership

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Abstract. There is a long tradition of research on work in teams and their increasingly important use as an approach to organizational design. While the implicit assumption has been that individuals work on one team at a time, many individuals are now being asked to juggle several projects and their associated multiple team memberships (MTM) simultaneously. This creates a set of interesting opportunities and challenges for organizations that choose to structure work in this way. In this paper, we review the limited existing research on MTM work. We then present the results of a survey documenting the prevalence of MTM work, and the findings from a pilot interview study suggesting a number of challenges, benefits, and enabling conditions associated with MTM work. We discuss the implications for managers working in MTM environments as well as for scholars of teams and, in doing so, we describe what we see as key items on the agenda for future research on this topic.

INTRODUCTION

There is a long tradition of research on work in teams and the use of teams as an important approach to organizational design [1, 2]. In general, this research assumes that people are members of one team at a time, able to focus all of their energies on that team's task without competing commitments. In practice, people are often members of more than one team at a time and they, their team leaders, and organizations must manage the challenges posed by relying on multiple team memberships (MTMs) as a way to structure work. Those challenges are becoming more common as organizations become flatter, more project-based, and more geographically dispersed [3-5]. Multiple team memberships have implications for how individuals, teams, and organizations do, manage, and communicate about their work. They also have implications for the information systems designed to support the management of projects and the assignment of people to them.

Previous research directly addressing MTM is limited. Reviews of the teams literature include only studies that (implicitly or explicitly) focus on single team membership [e.g., 9, 10-12]. Only a handful of studies allude to MTM as a an approach to organizing work and still fewer address it directly. Among those alluding to its existence, Utterback [6] found that spending less than 50 percent of time on a single project reduced idea generation effectiveness. Watson-Manheim and Belanger [7: 78] noted in passing that "membership in multiple teams adds complexity to individuals' communication strategies" and the focal team in Majchrzak, Rice, Malhotra, King, & Ba [8] included members who contributed no more than 15% of their time to it.

The few studies directly addressing MTM focuses on the individual level. For example, Leroy and Sproull [13] report survey results on the stress caused by working on multiple teams and the impact of leadership and role ambiguity on that stress. A study in operations research highlights the link between "project overload" (i.e., "perceived fragmentation, disruption and inefficiency, caused by switching between assignments for separate but simultaneous projects") and psychological stress, competence development, and deviations from budgets and schedules [14]. Surveying 392 project managers and members in nine European mechanical, pharmaceutical, and construction firms, these researchers [14] found that the average respondent was a member of three projects simultaneously, with only 23% working on one project at a time.

Research that focuses on team-level issues in multiple-team work settings deals primarily with leadership and coordination issues [15-18] and integration mechanisms, including but not limited to leaders [19, 20]. In addition, some work in the project management and operations research literatures has also addressed the same coordination/integration challenges as well as more specific project management, cross-project staffing, and optimization issues [21-24]. While these studies address how organizations can coordinate the efforts of multiple teams, they do not address the challenges or benefits associated with dividing time among multiple teams. As defined by Mathieu et al. [18: 289], multi-teams systems (MTSs) include "two or more teams that interface directly and interdependently in response to environmental contingencies toward the accomplishment of collective goals." As

such, the definition of MTSs technically allows for people splitting their time across teams, but empirical studies of multi-team systems have all included people who devote 100% of their time to one team. In contrast, MTM work environments by definition involve people splitting their time across *multiple* teams.

Aside from the few studies mentioned, we are aware of nothing that has been written about MTM's potential benefits, including organizational innovation, team performance, and individual learning and career development. Nor have we found anything that addresses the implications of MTM beyond the individual level stress that it causes [13]. Given the lack of research on MTM, the work presented in this paper is necessarily descriptive and exploratory [25]. We present data from a survey of 401 professionals, documenting the prevalence of MTM across a range of industries and occupations. In addition, we present the results of interviews with 13 professionals regarding two questions:

1. Consequences of MTM – For individuals, teams, and organizations, what are the important positive and negative consequences of multiple team membership?

2. Conditions for Effectiveness in a Multi-Team Environment – What conditions, when in place, enhance the likelihood that MTM will improve individual, teams, and organizational effectiveness?

Building on the survey and interview data, our research lays a foundation and sets an agenda for future studies on the individual, team, and organizational implications of MTM. We believe our research will help address a common but understudied practice in 21st century organizations.

METHODS

Given the nascent nature of research on this topic, we adopted a two-pronged, grounded, exploratory approach. After reviewing the literature on MTM and related topics, we surveyed 401 professionals about the prevalence and nature of MTM in their work. We also interviewed a sample of 13 professionals in an organization (XYZ Corp.) that makes heavy use of MTM.

Survey

We added questions regarding MTM to a general background survey administered to 401 current and former full- and part-time MBA students at two universities. We achieved a response rate of 90%, of whom 88% worked on project teams. Most were junior to middle-level staff members in their organizations, with an average organizational tenure of 3.2 years.

Our survey questions were primarily demographic and descriptive. Questions addressed firm-level characteristics (size and primary industry) as well as those of individual respondents (functional affiliation and occupation, number of people managed, location in organizational hierarchy). We also asked about MTM-related processes and procedures (whether they work in project teams, and on how many, who assigns them to teams, and what their own role was in team assignment to teams). For those who worked on multiple teams, we asked questions about the two

or three teams to which they dedicate the most time [(whether they were formally assigned to the teams, whether they charged time to them, how many people were on the teams, the percent of time they dedicated to each in the last month, and what boundaries the teams crossed (e.g., departmental, organizational, city, state, national)].

Interviews

The interview component of our work used Glaser and Strauss's grounded theory approach [26-28]. Such an approach is appropriate for new or understudied phenomena when researchers want to develop a deep understanding from the data [25].

We conducted 13 interviews at XYZ Corporation (see Figure 1) – a federally funded research and development center with 4,700 employees in which MTM is common. Interviews followed a semi-structured interview protocol, which we modified slightly after pilot interviews with people outside XYZ Corporation. All of our interviewees had served as both project leaders and members. The interview sample included six men and seven women, with an average organizational tenure of ten years. All but two had responsibility for managing others outside their project work.

FINDINGS

Prevalence of MTM

Our survey data indicated that MTM is indeed quite common. Of the 401 respondents, 65% worked on more than one team at a time (M = 2.7 teams simultaneously, SD = 2.2). Many of these teams were cross-functional (67%) and inter-organizational (53%) and a considerable minority (34%) was also international. The teams averaged 7.5 members each.

When asked to describe up to three teams on which they worked, respondents reported that they devoted 46%, 25%, and 20% of their time to those teams, respectively; indicating that most had a core team to which they devoted nearly half of their time. Although many large service firms have people devoted to allocating staff to projects, fewer than 5% of our respondents were assigned to teams by HR or a central staffing office, with functional, departmental, or project managers doing so for the other 95% of respondents.

Challenges and Benefits of MTM

Our analysis of the interviews suggests a number of challenges and benefits of MTM at the individual, team, and organizational levels. In many ways, many of the challenges of MTM are also its benefits [29].

Individual

For individuals, MTM demands high personal discipline and interpersonal competence in addition to the expertise required to complete the task itself. Functioning in an MTM environment further creates the need for individuals to negotiate competing demands on their time and to multi-task, as explained by the following interviewee:

I am slapped about the head and shoulders regularly by the project leader to spend more time on the task ... Well, so then you feel bad, so then you try to put in a few more hours ... You find out what the real sticking-point is, why they want more time, is it that they have a meeting scheduled, is it that there is a deadline coming up? And you figure out what the real problem is, and act against that.

Although MTM work is demanding, it provides employees with opportunities to shape their careers by joining projects related to expertise they have or want to develop.

A lot of what happens in your work program is that you are an autonomous person, an entrepreneur within the confines of an organization that puts people to good use. At any given time, I think about "Well, what am I working on?" but there's also the "Well, what am I going to be working on?" or "What do I want to be working on?" So some of the projects that I'm starting now are sort of seeds for additional things. So there is a strategy of how will this lead to that and lead to the other, and which path am I choosing to go down to get me there.

Team

For teams, MTM leads to challenges in scheduling and getting members' time and attention. One person who was both a functional resource manager and a project leader experienced this problem repeatedly, and explained that:

One of the reasons I became a group leader is so that I would have control over people's time ... You know I have the final say on what they work on. So the ideal situation is the one I have, where I am the project leader but I am also the resource manager.

While managing conflicting demands remains an issue, MTM can also benefit teams through cross-project learning, as one interviewee noted:

I think the projects benefit from members' being able to bring best practices and lessons learned from other projects to bear on their problems.

In addition, projects operating in an MTM environment benefit from being able to "afford" special expertise that would be too costly if acquired outside the organization or through a dedicated full-time employee:

In order to be really good stewards of client dollars, we don't want to pay for five weeks of the time of someone with special skills when what we really need is an intense effort from them in week 5 of the activity.

Organizational

For organizations, MTM work is quite complicated to coordinate. Not only must the total required effort be estimated and matched to individual workers, but timing of that effort must be coordinated among projects. Slippage in one project can create a domino effect, as the work on other projects needs to shift to accommodate unanticipated difficulties or delays. Keeping managerial roles reasonable in such an environment is a challenge. With knowledge and expertise highly valued, managers are rarely able to "just" manage but are expected and want to contribute as well. As a result, managerial roles become unwieldy and individuals overextended:

The detriment to doing [MTM] plus managing is quality of work life and home life, you are stressed and you don't have enough time, the way I manage it is that I do my project work during the day and my corporate management work at home at night after the kids go to bed. So I get online and answer all of my emails, and get back to my staff and respond to their questions after the normal work day. And you know, I'll typically have my laptop on my lap and be doing stuff while I watch TV and that type of thing.

MTM is particularly challenging in environments where management wants to restrict information distribution due to intellectual property or security concerns. However, where that is not a concern, a significant benefit of MTM is that it enriches the social network of the organization:

The benefits [of MTM] are that I have a global awareness of what is going on in other programs, and I get more exposure to company staff, and I am getting to know a lot of the talent in the company which is helpful [for future projects].

MTM also provides a valuable motivational tool where learning is valued, but opportunities for official promotion are scarce due to flat hierarchies. As one interviewee commented:

I've gotten to a point where I am not going to go any higher in the company … and I am at a point in my life where I don't want to spend time on something unless I enjoy the work and I enjoy the people … so I find projects I enjoy.

Information Systems

MTM work is often distributed, asynchronous, and inter-organizational, which has its own challenges [30, 31], but some of those challenges are manifested in distinct ways when employees are working on multiple teams. For example, while email is critical for communication and coordination in distributed, asynchronous MTM contexts, it is often hindered or blocked by client firewalls:

I began on this one project, and needed to connect with this particular team member who was working on-site on another client project and there was no way to get in touch with him through the usual means (email) so we fell back on the old fashioned "Let's get together for lunch." So I drove down to where he was to get the information I needed, and I mean then you are talking about a whole day, because there was no other way to get going on the project without his input, and the client sites we were working at just didn't have compatible systems.

While communication challenges are also significant in single-team contexts, MTM contexts have the additional challenges of managing multiple systems, connections, and security protocols since individual team members may be working from multiple different locations.

Organizational communication and information systems are critical for working seamlessly across multiple team boundaries as well as for providing the managerial backbone of a well-functioning MTM system. Good project planning, time tracking, and communications systems are all needed to support MTM work. As our interviewees noted, when these systems falter or fail, it can be a serious impediment to MTM work:

The other day, I went in to put my hours in for the week, and I couldn't enter my hours because the system had me as at my limit on my project …but I wasn't. So I had to spend some time on the phone with the HR and IT people fixing that.

At the same time, the strong information systems set up to support an MTM environment can also enrich the social network of the organization. At XYZ Corp., the project work time-tracking system is tied to the intranet telephone directory, so that employees can easily find out who is affiliated with different projects. In addition to project communications, both email and the XYZ's intranet are used to support listservs and special interest groups, which both help employees build their expertise and connect with others who could use their skills on a project.

Conditions for Increased Effectiveness of MTM-based Work

Our interviews and observations suggested that the following six conditions can increase the chances MTM will yield positive outcomes for individuals, teams, and organizations:

1. The ability to recruit individuals with the proper social and task management skills;
2. A task and team structure amenable to MTM work;
3. High familiarity and trust among team members and between the teams and their clients;
4. Appropriate and adequate organizational information and communications systems;
5. An organizational climate that permits access to the information needed to match projects with individual skills; and,
6. The availability of a system to help "load balance" project assignments.

Staffing

Choosing the right people to work in an MTM work environment is critical. Individuals need not only the expertise to complete the projects, but interpersonal and time management skills as well. Prior research has shown that there are stable individual differences in the ability to multi-task [32] and to communicate effectively [33]. These abilities are related to, but are not completely correlated with, overall competence.

Employees are here because they have a critical skill set, and they know their business, and we try to find a match ... but if you don't do well in this kind of environment, you probably won't stick around ... [When hiring new staff] I am trying to figure out the right things to look for up front ... Right now it is just kind of trial by fire. I focus a lot on behavioral things, past behaviors, have they worked in this type of environment before? I put a lot of emphasis on that.

Once the right people are hired, MTM project work can keep performance standards high by making people accountable for producing good work because they are "hired" for each project:

I think this system is good because it keeps people accountable for doing a good job on the projects they work on; if they don't, then nobody wants to hire them for their project in the future.

Task and Teams Structured for MTM Work

Our interviews pointed to three features that help make work amenable to the MTM approach: (1) a more "mature" and well-defined (not early-stage) project; (2) a "modular" project in which individuals can work separately on assigned pieces to be recombined later; and, (3) predictable deadlines and a work pace punctuated by regular meetings or checkpoints to keep everyone aligned.

Effective project leaders at XYZ Corp. recognized that the MTM approach was not well-suited to projects in the early phase. As one manager explained:

One project I've had for a year, so it takes no spin-up, I can walk in there, I can be productive very quickly, I know what I need to do. The new project I have, it is new to me, a new customer, we've met with them several times, heard about his needs, how he likes to do business, trying to get an understanding of how we can bring the most value, how they can use my expertise. So there is a lot of think time, a lot of talking ... I think when you have to do that type of thing, you can't do it in two hour chunks, so I try to spend the whole day when I am working on that task ... When we have projects like that, we usually put one or two people on it full-time until it gets going.

Standard wisdom on good team management includes the notion that selecting and structuring tasks appropriately for teams is critical [34]. For MTM tasks, though moderate interdependence is necessary to promote the work of the team [35], tasks also require the modularity that allows work to happen asynchronously. This coupled with a work rhythm paced by regular meetings and established deadlines, helps

members intersperse project work with their other commitments. For example, one interviewee commented:

If someone has a particularly hot project, one that is important to the company … those projects can rise to the top of the cue and people will rearrange their schedules to participate. Realistically, though, you are never going to have everyone at the same table at the same time, especially if you are dealing with a project of high complexity, high volatility, high significance, you'll always be short somebody … so then we coordinate asynchronously.

In talking about a project that was particularly well-managed, another interviewee noted:

We all came in and knew what to do … The expectations were clear, the product was clear. If I showed up to work on something as someone else was finishing up, there was a system for leaving comments so I knew where to start. It was all well thought out and coordinated.

In addition to structuring tasks to be amenable to asynchronous work, team structure needs to accommodate members with varied levels of time commitment to the project. Roles need to be flexible as members with specific expertise are brought in to work on discrete portions of the project, while others are involved from start to finish. In this sense, some members are core to the team while others are more short-term or peripheral [36]. One interviewee explained how this worked:

On my main project, I work 50% of my time … On this other project, I am just a consultant, like 4 hours a week, because they need me for a particular part. So they tell me about all of their meetings, and I try to make as many as I can, especially at the beginning, but if I can't they are like "Oh, it's OK, you're a consultant."

Familiarity and Trust

The relationships that team members have with each other and the relationship between the team and the client are important in setting the stage for effective MTM work. There is an inherent tension in MTM work environments with respect to team member relationships. While a central benefit of MTM work is the opportunity to work with different people on many different projects and expand one's social and knowledge base, individuals also acknowledge that MTM work is much easier when members have established relationships and high trust for one another. Team members must be able to trust each other to honor commitments and deliver the work the team is expecting to receive.

While I like working on multiple projects with different people, I think it is really tough when you can't keep a good team together. Sometimes I try to go out and find work in order to keep a good team together … A good team is important.

Trust is important in all teams, but is particularly important in MTM contexts where members have more difficulty monitoring work progress and lack the time to

take on tasks not done well by fellow teammates. Thus, over time, MTM workers tend to gravitate toward projects that involve people they know in order to mitigate these risks:

Knowing the people ahead of time is a critical success factor. We could not have done that project successfully if we were trying to cobble together a team of people who had never worked together. The degree of complexity of the client's problem set was so great that we had to have people who were known high performers and who were known to be good at keeping each other aligned and posted

Building a strong relationship between the team and client is also critical to supporting effective MTM work. As noted above, significant time must be spent early in a project getting to know the client and defining the problem and client needs. Thus, the early phase of a relationship and project may not be well-suited to members whose time is divided among multiple teams. However, as the project evolves, team members and the team itself might be able to manage more commitments. This was especially true for teams with direct client contact:

Some customers want to see you sitting there, they want to see you working on something … At one client, I have a desk there, and at the beginning I spent a lot of time there, got to know all of the people there and I did a lot of interviews and that sort of thing. Once I feel like people know me, and know what I do, I don't feel like I need to spend as much time in the environment, I can spend more here at the office and work back here or wherever is the best environment to work in.

This manager went on to explain that the ideal is to have one or two people on-site full-time during the early phase of projects to get to know the client, their context, and their needs. After the basic relationship is established and some initial satisfactory output has been produced, she explained that it is possible for most or all of the team to move to a part-time status, enabling them to work on multiple teams.

Information and Communications Systems to Coordinate Work

As mentioned earlier, information and communications systems provide important tools for facilitating MTM work. One such tool used by XYZ Corp. was centralized planning software to coordinate the workloads of individuals involved in different projects.

There is a process of assessing people's time, as part of the project budgeting process … Every year they set budgets, and every quarter they actually look at who is assigned to work on things. There are certain ongoing projects, something we know is going to happen, and people are budgeted according to how much time is required, and so they take a look at that and if people are allocated more than 100%, then they have to juggle that. So they try and do that at the beginning of the year, and then readjust it on a quarterly basis for financial purposes, and it also helps in judging peoples' work loads and trying to adjust.

In addition to managers' project planning systems, XYZ Corp. had email, intranet, and file server systems accessible from off-site and provided employees with laptops to facilitate distributed work. Being able to work in their choice of location greatly facilitated individuals' ability to work on multiple projects simultaneously, as it greatly reduced the "switching costs" associated with physically moving to separate locations for different projects. It also helped people coordinate with one another when working at different client sites for different projects:

Most of the time, people juggle two or three projects ... so that creates some interesting challenges in terms of how do you get people together in a room to have a conversation? How can you most effectively use the technology, because a lot of the collaboration technologies are not available if you are working on a client site on another project? So you can't just have a web chat, you can't just make a quick conference call, at that point we have to be really resourceful and creative to make sure we keep everyone tuned in so that they can do their individual work and do their work collaboratively.

Open organizational climate

As discussed above, MTM work usually evolves in a setting where individual expertise is highly valued, as MTM work arrangements allow teams to access more focused, specialized expertise than they would otherwise. To facilitate that access, organizations must create a climate in which project leaders can learn about the skills and capabilities of others in the organization, and individuals can learn about the projects that need staffing. Open discussions about projects, networking groups, topic-oriented listservs, and intranet portals on which employees post their resumes or project information are all tools for matching employees with projects.

Our company has these networking lunches, and I started going to those soon after I started work here ... I've made a lot of contacts with people to find projects and find people to work on my projects.

Sometimes I find work because I have expertise and interest in a particular topic area, and I hear about a project that involves that, so I make sure the project leader knows I am here and that I'm interested.

In some organizational contexts, concerns over security or intellectual property create barriers to communication across projects. While such concerns may be real, some organizations fall into the habit of making everything "secret" and may be unnecessarily undermining their ability to create connections among employees that can enhance the quality of their work overall.

Load Balancing System

While careful planning in MTM settings can assure that each employee is assigned the right amount of project work, changes inevitably occur requiring mechanisms for making mid-course corrections. New, high-priority projects are

requested by important clients, individual workers suddenly leave the job for personal or professional reasons, or deadlines change as a result of unexpected difficulties. All such events create changes that reverberate across a system of linked projects, necessitating changes in work assignments. At XYZ Corp., it is important to manage these kinds of conflicts effectively:

For me, it's extremely important that I help [in times of conflicting deadlines], I'll go to the project lead or the project lead's management and explain that it is my decision to give this other project priority, and keep the burden as much as possible off of the staff.

In other settings, managers might have weekly meetings with their staff and/or other managers to review project workloads and anticipate difficulties. Such mechanisms help to avoid the stress that workers often experience in MTM settings [13], as well as ensure that projects get the effort and attention necessary to insure their quality.

CONCLUSIONS

This research represents a first attempt to model the benefits and challenges of work involving MTM. As such, it represents the beginning of a multi-level theory [37, 38] regarding the conditions under which MTM can enhance individual, team, and organizational innovation and effectiveness. We believe the preliminary findings reported here hold numerous implications for both scholars and practitioners managing in MTM environments. For scholars, these include implications for new and existing theory and methods, as research on MTM might may call into question existing findings that which are predicated on a "one person, one team" assumption. For practitioners, these findings reflect key conditions necessitated by MTM contexts. As discussed, these include implications for the types of individuals organizations recruit, the design of work, the informational and communications systems necessary to coordinate work, and the openness of communication within and across teams. Though increasingly prevalent in organizations, MTM contexts remain largely unstudied. Since organizations' reliance on MTM is likely to grow, we encourage further MTM research to explore this common but understudied approach to organizing work.

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