



APPLICATION OF AGILE MANAGEMENT IN THE HOTEL BUSINESS IN SERBIA

Katarina Sredojević¹,
Angelina Njeguš^{2*}

¹Independent Researcher

²Singidunum University,
Belgrade, Serbia

Abstract:

The modern business environment is characterized by pronounced complexity, frequent and rapid changes, accelerated development of information technology, high expectations of end users and other factors. Hotels, as business systems, must follow changes and apply the latest achievements in the field of technology and management, in order to preserve competitiveness. Agile management provides certain advantages because it follows changes in the environment, promotes the exchange of information, helps to identify risks early and make decisions in a timely manner. For the purposes of this paper, a survey was conducted with the aim of exploring the application of agile management in the hotel industry. The survey consists of 22 questions, utilizing the Likert scale, and covers inquiries about demographic information, hotel description, and the implementation of agile management in hotel business. It is primarily intended for general hotel managers in Serbia and was distributed through email contact addresses. The obtained results showed that the hotel management is aware of the advantages of agile management and applies it in its business activities. The research also pointed out certain deficiencies that exist in the hotel business. Future directions of research should be aimed at discovering the causes of these deficiencies and finding ways to overcome them.

Keywords:

agile management, agile methods, hotel management, project management.

INTRODUCTION

There are certain similarities between traditional and agile project management, but also significant differences. The traditional project management approach operates under the assumption that all user requirements, expectations, durations, activities, and outcomes can be predicted and planned in advance. The user is not involved in the project execution process until the final result is obtained and the testing phase begins. At that point, there is a potential risk that the product may not meet the desired expectations. Agile project management, on the other hand, is a method that delivers value to the user through continuous adaptation of planning, rapid feedback, timely decision-making, continuous improvement, and intense collaboration among all stakeholders. The user is involved in the product or service development process from the very beginning of planning.

Correspondence:
Angelina Njeguš

e-mail:
anjegus@singidunum.ac.rs



The hotel industry represents a complex management approach that encompasses a wide range of diverse processes, participants, and activities, with customer satisfaction at its core. The development of information technology has had a significant impact on the frequent changes in the behavior of all stakeholders in the tourism market. Monitoring environmental changes and timely adaptation to their influence has become of paramount importance for both sustaining operations and achieving business objectives.

In their scientific study, the group of authors (Turginbayeva *et al.*, 2020) presents the possibilities of applying flexible project management methods in the hotel industry. They identify three main reasons that limit the application of flexible methods and occur in cases when:

1. Hotel management is primarily focused on operational activities.
2. A multidimensional organizational structure imposes certain constraints.
3. There are barriers to close collaboration with clients.

By comparing the fundamental characteristics of traditional and flexible management, it is possible to identify several criteria for selecting the most suitable model. These criteria include: core factors (whether the focus is on the project itself or customer satisfaction), project content, complexity of changes, sales methods, external factors' impact on the project, change management approach, organizational structure of the company, project management methodology and stakeholder influence level. Each of these criteria influences the choice of an appropriate project management model.

The implementation of a software solution for hotel inventory system through agile methodology is described by another group of authors (Diaz *et al.*, 2021). This example illustrates that monitoring environmental changes and timely responses to them are crucial for the successful execution of a project. Thanks to the agile approach, the project consistently considered newly arising changes and made continuous adaptations during its duration, contributing to its successful realization.

Employee satisfaction and retention have been the focus of numerous researchers. In one study (Issa *et al.*, 2019), the possibilities offered by agile management methods for this purpose are described. The study lists the key factors that employees consider when deciding whether to stay in an organization or not. These factors include salary, performance evaluation and rewards system, career development, decision-making opportunities, work-life balance, work environment, and workplace safety. It is explained how the application of agile principles creates opportunities and positively affects employee satisfaction. Several agile techniques are discussed: SCRUM, Agile Alliance Manifesto, Extreme Programming, Dynamic Systems Development Method (DSDM), and Feature Driven Development. Each of these techniques outlines principles and practices that create a satisfying environment for employees to achieve more, work more efficiently, and feel comfortable enough not to leave the organization, without significant efforts from the HR (Human Resources) department.

The role of organizational agility in achieving competitive advantage in the hotel industry is depicted by a group of authors (Alsubaihi *et al.*, 2020). They examine the impact of three factors that significantly contribute to uncertainty in the business environment: market changes, technological changes, and competition. As such, these factors directly influence the competitive advantage and performance of hotel businesses. The relationship between the uncertain environment and the competitive advantage of the hotel itself is considered, highlighting the positive role of organizational agility as a moderator.

The impact of Information Technology (IT) on the organizational agility of hotels and to what extent they contribute to hotels being agile in responding to changes in the environment is best described by a group of authors (Melián-Alzola *et al.*, 2020) in their study. An important contribution of this research is the empirical validation of a scale for IT usage in hotel business, which identifies four types of usage, or four dimensions: external agents, human resources, products/services, and processes.

Starting from the research problem, the initial research questions were formulated as follows:

1. Does hotel management recognize the benefits of agile management and implement it in their business activities to facilitate faster information exchange, early detection of environmental changes, and timely decision-making toward achieving desired business goals?
2. Does hotel management recognize the possibilities of applying agile management in their business activities?



3. Is agile management applied in hotel operations, and which method is most commonly used?
4. Does agile management assist hotel management in faster communication and decision-making in line with the changing environment?
5. Does the implementation of agile management help team members execute their tasks more quickly and easily?

Therefore, the main objectives to be achieved by this study are to ascertain whether and to what extent agile management is applied in the hotel industry as a business approach for monitoring changes and to identify the possibilities for its broader implementation. Regarding the structure of this paper, after the introductory section with an overview of the existing literature, the first part presents the managing hotel business with agile methodologies. The second part focuses on the research of the application of agile methodologies in the hotel business and an analysis of research results. The third part constitutes the research conclusion regarding the application of agile methodologies in hotel business.

TRADITIONAL VS AGILE METHODOLOGIES

Unlike traditional methodologies, which are characterized by a series of key project development phases that are chronologically aligned, where each subsequent phase begins only after the previous one is completed, agile methodologies are more focused on collaboration with users rather than emphasizing strict adherence to agreed-upon procedures. The first methodologies were developed for the software industry, with the most well-known being the Waterfall model. In general, phases in traditional methodologies are divided into: user requirements specification, analysis, design, development, testing, and maintenance. The duration of projects managed using traditional methodologies could take up to a year or more, with each individual phase lasting several months. The primary drawback that emerged from the application of traditional methods was the failure to recognize risks in the early stages of the project. Identifying them at the end of the project required significant delays, tenfold increased costs for defect resolution and/or mitigation, and sometimes even resulted in complete project failure.

In response to the mentioned shortcomings, an iterative methodology was developed, based on an iterative-incremental approach. The project would be divided into several sequential iterations, with new functionalities added to each iteration, allowing potential risks to be identified at the very beginning. Each iteration produces an executable version and includes integration and testing. The primary goal of completing each iteration is to obtain an integrated, stable, and tested part of the overall project under development. However, despite the development of other traditional methods, the percentage of failed projects did not significantly decrease. Users remained dissatisfied and software engineers attached more importance to procedures and project development than changes in the environment and emerging user requirements.

In 2001, leading experts in the software industry convened in Utah, USA, and established the Agile Alliance, a non-profit organization aimed at promoting the flexible project development concept and assisting organizations in its implementation. On this occasion, the Agile Manifesto was adopted, defining better ways of software development and comprising 12 agile principles. By combining these principles, four fundamental agile philosophical concepts are highlighted:

1. Individuals and their interactions are more important than processes and tools.
2. Working software is more valuable than comprehensive documentation.
3. Collaboration with users is more important than contractual agreements.
4. Responding to change is more important than strict adherence to a plan.



Agile project management necessitates a significant shift in the mindset and thinking of all participants, primarily employees within a company. While traditional management involves strict adherence to approved plans and schedules, agile management relies on adaptability to change, openness to innovation, product flexibility, employee flexibility, and work processes. Participants are encouraged to freely express their opinions, observations, and ideas, to consider their tasks and how they contribute to common goals, thus being fully engaged in the project development process. The desire for innovation has become an integral part of the corporate culture in agile organizations. There are several agile management methods, among which Kanban, Scrum, and Design Thinking, or their combinations, are commonly used today.

Scrum is a process framework that enables individuals, teams, and organizations to address complex problems and deliver products with the highest possible value, achieving high productivity and creativity in decision-making. It has proven to be particularly effective in iterative and incremental knowledge transfer. Today, it is widely used for product development, services, and organizational management. The essence of Scrum is a small, self-organizing, and adaptable team whose activities are based on sprints. The core values are commitment, focus, openness, respect, and courage among all participants. Scrum roles are divided into the Product Owner, Scrum Master, and the Development Team.

Design Thinking is an analytical and creative process that enables designers to experiment, create, and prototype models while collecting feedback and redesigning (Razzouk & Shute, 2012). A good designer should possess visualization skills and creativity, among other qualities. The framework of Design Thinking is an iterative process aimed at understanding user needs and reframing the problem to identify different strategies and problem-solving approaches. The final solution may differ from the initial problem understanding. Design Thinking allows an approach based on finding various ways to address the same problem, encompassing a particular mindset and working method, along with the application of appropriate work methods. According to the Hasso-Plattner Institute of Design at Stanford University, Design Thinking consists of the following five phases: Empathy - creating empathy with end users; Define - defining user needs, their problems, and one's insights; Ideate - making assumptions and generating ideas for innovative solutions; Prototype - creating and developing solutions; Test - testing solutions.

HOTEL INDUSTRY AND COMPETENCIES OF HOTEL MANAGERS

Hotel industry is an economic activity that takes place within the hospitality industry and primarily refers to accommodation and food services. In the academic sphere, the prevailing approach to defining hotel industry is centered on describing the business and management aspects, with a focus on service provision. According to one definition (Brotherton, 1999), hotel industry is "simultaneous human exchange, entered into voluntarily and designed to enhance mutual well-being, through the provision of accommodation and/or food and/or drink." According to another definition (Kosar, 2015), "Hotel industry is an economic activity within the hospitality industry that spatially and functionally combines accommodation services with food services, including related services that are associated with them."

Hemington (Hemmington, 2007) suggests in his work that by redefining hotel industry as a way of behavior and acquiring experiences, a new perspective for managing hotel business opens up because hotel guests are not buying a service, but they are purchasing an experience; they are not buying the quality of service, but they are buying memories; they are not buying food and drinks, but they are buying the experience of a meal. Hemington proposes that hotel industry should be viewed more as hosting, where hospitality, a sense of theatricality, and generosity take center stage.

The hotel industry is constantly and rapidly changing under the influence of various factors in the global business environment. It is essential to continuously assess which leadership competencies are of paramount importance. Sison and Adams (Sisson, L. G., & Adams, A. R., 2013) identify a total of 33 key leadership competencies for hotel managers, which can be divided into three groups: hard competencies (13 in total), soft competencies (16 in total), and mixed competencies (4 in total). Hard competencies include skills such as financial statement analysis, cost control, budget planning, crisis management, knowledge of sales techniques, computer literacy, and more. Soft competencies encompass skills like written communication, employee development, building positive customer relationships, delegation, leadership abilities, presentation skills, negotiation



techniques, personal stress management, and others. Mixed competencies involve tasks like conducting interviews during hiring, critically using information in decision-making, employee training, and resolving guest complaints. Interestingly, research has shown that even 86% of competencies that hotel managers consider crucial belong to the category of soft competencies.

The General Manager is a leading managerial figure because they oversee their employees and team, guiding them towards the implementation of the business strategy and the achievement of business objectives. The General Manager of a hotel has various roles within their position, including strategic activities (planning, implementing, and adapting the business strategy), operational control (addressing operational issues and interacting with subordinates), organizational tasks (monitoring internal and external information, improving operational efficiency, enhancing hotel services), and business activities (developing managerial skills). To be effective in their roles, the General Manager needs to possess various skills and competencies. In exploring the key leadership competencies for the role of General Managers in hotels, Tavitijaman and colleagues (Tavitijaman *et al.*, 2014) have identified eight leadership competencies. They also conducted an analysis of how certain factors, such as the characteristics of General Managers and hotel characteristics, can influence the prioritization of leadership competencies. The following eight leadership competencies stand out:

1. Team Building and Ethics.
2. Leadership.
3. Communication Skills.
4. Planning and Implementation.
5. Employee Motivation and Interpersonal Skills.
6. Strategic Orientation.
7. Flexibility.
8. Community Engagement.

The significance of specialized education for managers in the hotel industry is best illustrated by Teus and colleagues (Tews *et al.*, 2011), who highlight the arguments for adapting the education of future hotel managers to the specific requirements posed by this field. While business programs focus on the fundamentals of management, specially tailored hotel management programs equip graduates not only with general management principles but also with the management of guest experiences and employees in the service sector. These reasons pertain to the following:

1. The Specificity of Hotel Management.
2. Small Hotel Enterprises.
3. Hospitality Is Primarily a Service Industry.
4. People Management.
5. Food and Beverage Management in Hospitality.
6. Application of Knowledge in Other Service Industries.

RESEARCH ON THE APPLICATION OF AGILE METHODOLOGIES IN HOTEL BUSINESS

Research Procedure and Data Collection

For the purpose of studying the extent of agile management implementation in the hotel business, a survey technique was utilized. A questionnaire consisting of 22 questions was prepared, covering inquiries related to demographic information, hotel characteristics, and the application of agile management in hotel business. The questionnaire structure also included the use of a Likert scale to obtain a more detailed insight into the response analysis. The survey was prepared using the Google Forms application.



Data collection based on the survey was carried out by distributing the questionnaire via email addresses of the respondents. Six participants took part in the survey, primarily in the positions of general managers. It was conducted from November 2022 to January 2023, on the territory of the Republic of Serbia. General managers were certainly the target group for the research, considering that they, in their positions, make decisions and choose the appropriate management style.

The challenges we encountered during the research were related to the questionnaire and contacting general managers. General managers, by the nature of their work, do not have much free time, so the questionnaire had to be sufficiently concise not to take up too much of their time, yet informative enough to obtain the desired responses. Additionally, their contacts were not publicly available, and a personal recommendation was necessary to establish contact with them.

Analysis of Research Results

There were six respondents, predominantly male, in the positions of general managers, with the most work experience in the field of management and a length of work experience from 16 to 20 years. All of them are highly educated, with even half of the respondents holding a doctoral degree. It is important to emphasize here that managers in high positions are aware of the benefits of further education and give equal attention to both the development of their professional careers and their academic education.

In response to the question about their current positions and years of experience, the respondents indicated the following: Director, General Manager, Hotel GM, and Chief Executive Officer. Considering that job position systematization can vary, we can assume that General Manager, Hotel GM, and Chief Executive Officer belong to the same category.

Job satisfaction is a topic that is increasingly capturing public attention in today's world. Our respondents expressed very positive views on this matter, with four of them stating that they are completely satisfied with their working conditions. None of the respondents reported being dissatisfied. The main reasons for not being completely satisfied with their job were cited as working conditions and job-related stress (e.g., tight deadlines). What is particularly interesting in their responses is that salary, interpersonal relationships, motivation in the work environment, and fulfilling work were not listed among their reasons. Characteristics of the general managers are presented in Table 1.

Table 1. Characteristics of hotel general managers.

Characteristics	Characteristics of Hotel General Managers		
	Feature's domains	n	%
Age	25-34	1	16,7%
	35-44	2	33,3%
	45-54	1	16,7%
	55 and more	2	33,3%
Gender	Male	1	16,7%
	Female	5	83,3%
Education	Undergraduate	1	16,7%
	Postgraduate / Master	2	33,3%
	PhD	3	50%
Years of work experience	6-10	1	16,7%
	16-20	3	50%
	25 and more	2	33,3%
The area with the most experience	Human resource	1	16,7%
	Management (Director, General manager, GM Hotel, General director)	5	83,3%
Job satisfaction	Satisfied	2	33,3%
	Completely satisfied	4	66,7%
The main reason why you are not completely satisfied at work	Conditions on workplace	1	16,7%
	Stress (short deadlines)	1	16,7%
	Salary. Interpersonal relationships. Work environment.	-	-
	Motivation. Clients. Business partners.	-	-



Taking into account the categorization of the hotels where our respondents work, all the hotels are of high classification, with 4 and 5 stars, predominantly of a business and classic type, medium-sized, with a number of rooms ranging from 100 to 200, and employing more than 70 staff members. All of them offer a range of additional services including a pool, spa, gym, cafe, sports facilities, and a nightclub. High-class hotels were the target group for this research because they value their reputation and it is important for them that the environment recognizes their efforts in implementing current trends such as sustainable development, community care, data protection, and more. Agile management certainly falls within this group of trends. Characteristics of the hotels where the respondents work are presented in Table 2.

Table 2. The hotel characteristics.

Characteristics	The hotel characteristics		
	<i>Feature's domains</i>	<i>n</i>	<i>%</i>
Star rating	5 star	1	16,7%
	4 star	5	83,3%
Type of hotel	Business hotel	2	33,3%
	Classic hotel	2	33,3%
	Resort	1	16,7%
	Boutique	1	16,7%
The size of the hotel	Little	1	16,7%
	Middle	3	50%
	Large	1	16,7%
Number of rooms	25-50	1	16,7%
	100-200	5	83,3%
Number of employees	50-70	1	16,7%
	70 and more	5	83,3%

In the following analysis, the research results on the application of agile management in hotel business will be presented. Respondents were first asked about the key management issues in the hotel and the factors influencing poor team organization. By identifying these elements, areas that could be improved by applying an agile management approach are revealed.

As key management issues in hotels, the following were listed: employees, external factors, and a volatile market. What is particularly encouraging is the fact that their responses do not include guests, business partners, and competition, indicating good business practices and that business results align with business goals. Employees are certainly a challenge because being a manager primarily means effectively leading the workforce. It involves ensuring that employees are aware of the business goals, promoting free and open communication among them, recognizing their unique qualities, making fair decisions, and organizing work, all of which collectively contribute to higher employee motivation and, consequently, better business results.

External factors are something that cannot be controlled but, to a greater or lesser extent, directly impact operations. Events such as natural disasters or new legal regulations can necessitate drastic changes in management and organizational activities in relatively short timeframes. A volatile market, like external factors, is also beyond one's control. Changes in supply or demand certainly influence decision-making that must adapt business operations to newly emerging situations.

According to our respondents, factors contributing to poor team organization include: poor communication among team members, team members' egos, directive management, poorly defined roles, and insufficient knowledge and experience among certain team members. What we can observe is that communication, management, and job organization, i.e., work organization and business processes, can certainly be enhanced and improved through the application of some agile management methods.



The analysis of research results has also shown that there are certain positive and negative outcomes. Among the positive research outcomes, we can highlight:

- The current team organization is very good and/or excellent.
- Employees freely participate in setting daily tasks.
- Team members freely share their opinions.
- If one team member encounters a problem, there is a willingness from other team members to help.
- The team is efficient in carrying out agreed-upon activities.
- Agile methods are being applied in hotel management, and currently, the Design Thinking method has been recognized as a method finding application in the field of hotel management.

Among the negatively obtained research results, we can highlight:

- Not all employees share a common project goal. The obtained results may indicate that there is no clear feedback from employees or that there is no communication method through which a clear insight can be gained.
- Employees do not freely participate in setting job priorities.
- Daily meetings for information exchange (what they have been doing, what problems they are solving, and what they plan to do) are not organized. The obtained results may suggest that information exchange does not occur formally in the form of daily meetings but informally during everyday communication.

In terms of the importance of certain factors relevant to agile management, it is interesting to note that all the mentioned factors were rated as important or very important by the respondents. There were no other responses. Therefore, we can observe that, for the successful execution of business tasks and achieving business goals, the following factors are of great importance: communication among team members, adaptability to changes, self-organizing teams, and visibility of information sharing among team members. Additionally, most respondents emphasized the importance of and rated highly: the engagement of each team member and continuous improvement of processes and people.

Table 3 presents the results of the analysis regarding the implementation of agile management in hotel business.

Table 3. Agile management in hotel business.

Characteristics	Agile management in hotel business		
	Feature's domains	n	%
Key management issues	Employees	2	25%
	External factors	3	37,5%
	Changing market	3	37,5%
	Guests. Business partners. Competition	0	-
Current team organization	Poor communication between team members	1	9%
	Vanity of team members	2	18%
	Command management	2	18%
	Poorly placed job	2	18%
	Insufficient knowledge and experience on the part of individual team members.	2	18%
		2	18%
		2	18%
Is agile management applied in your hotel?	Strongly agree	1	20%
	Agree	1	20%
	Neither agree nor disagree	2	40%
	Disagree	-	-
	Strongly disagree	1	20%
Do employees participate freely in setting daily tasks?	Strongly agree	1	16,7%
	Agree	2	33,3%
	Neither agree nor disagree	1	16,7%
	Disagree	2	33,3%
	Strongly disagree	-	-



Characteristics	Agile management in hotel business		
	Feature's domains	n	%
Do all employees share the common goal of the project?	Strongly agree	1	16,7%
	Agree	1	16,7%
	Neither agree nor disagree	3	50%
	Disagree	1	16,7%
	Strongly disagree	-	-
Do employees freely participate in setting priorities, jobs that need to be done?	Strongly agree	-	-
	Agree	2	33,3%
	Neither agree nor disagree	1	16,7%
	Disagree	2	33,3%
	Strongly disagree	1	16,7%
Are daily meetings organized to exchange information?	Strongly agree	2	40%
	Agree	-	-
	Neither agree nor disagree	3	60%
	Disagree	-	-
	Strongly disagree	-	-
Do all team members freely share their opinions?	Strongly agree	1	16,7%
	Agree	3	50%
	Neither agree nor disagree	1	16,7%
	Disagree	-	-
	Strongly disagree	1	16,7%
If a team member encounters a problem, is there a will from the side other team members to help him?	Strongly agree	1	16,7%
	Agree	3	50%
	Neither agree nor disagree	1	16,7%
	Disagree	1	16,7%
	Strongly disagree	-	-
Is the team efficient in the realization of the agreed activities?	Strongly agree	1	16,7%
	Agree	2	33,3%
	Neither agree nor disagree	2	33,3%
	Disagree	-	-
	Strongly disagree	1	16,7%
If you do, which agile method do you use?	Scrum	-	-
	Kanban	-	-
	Scrumban	-	-
	Design Thinking	2	33,3%
	Other	-	-
How important is more communication among team members to you?	They don't matter at all	-	-
	They don't matter	-	-
	Mediocre	-	-
	They are important	3	50%
	They are very important	3	50%
How important is the participation/engagement of each team member to you?	They don't matter at all	-	-
	They don't matter	-	-
	Mediocre	-	-
	They are important	2	33,3%
	They are very important	4	66,7%
How important is adaptability/adaptability to changes to you?	They don't matter at all	-	-
	They don't matter	-	-
	Mediocre	-	-
	They are important	3	50%
	They are very important	3	50%
How important is continuous improvement of processes and people to you?	They don't matter at all	-	-
	They don't matter	-	-
	Mediocre	-	-
	They are important	2	33,3%
	They are very important	4	66,7%
How important is a self-managed team to you?	They don't matter at all	-	-
	They don't matter	-	-
	Mediocre	-	-
	They are important	5	83,3%
	They are very important	1	16,7%
How important is the visibility of information sharing between team members to you?	They don't matter at all	-	-
	They don't matter	-	-
	Mediocre	-	-
	They are important	3	50%
	They are very important	3	50%



CONCLUSION

The contemporary business environment is characterized by pronounced complexity, unpredictability, frequent and rapid changes, as well as a large number of market participants. This is further complicated by the accelerated development of information technology, widespread use of the Internet, and high expectations of end-users. Hotels, as business systems, must also keep up with and apply the latest advancements in technology and management methods.

Agile management provides certain additional advantages because by monitoring changes in the environment and obtaining feedback from users, it helps to identify risks in a timely manner, reducing project costs, and adapting the product or service to the needs of end-users during the development process. Furthermore, agile management facilitates the creation of a favorable work environment and contributes to increased employee satisfaction, thereby increasing employee retention rates without significant efforts from the HR department.

The data obtained from the conducted research have provided a more detailed insight into the subject of the study. The research has shown that hotel management is aware of the advantages of agile management and applies it in their business activities. However, it is not yet prevalent to a sufficient extent, considering that external factors and a changing environment have been identified as key management issues in the hotel. Factors such as increased communication among team members, information exchange, self-organizing teams, engagement of each team member, adaptability to changes, continuous process and people improvement are of great importance in hotel management and are also activities that belong to the core principles of agile management. Among the agile methods applied, the use of Design Thinking is mentioned.

On the other hand, the research has also identified certain shortcomings in hotel management, including the fact that not all employees share a common goal, they do not freely participate in setting daily tasks and priorities, regular daily meetings are not held. Future research directions should be focused on identifying the causes of these shortcomings and finding ways to overcome or minimize them.

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