

**RESEARCH OF FEATURES OF BANK INTERIOR DESIGNING
BANKAS INTERJERU PROJEKTĒŠANAS ĪPATNĪBU IZPĒTE**

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Ergonomics, working place, emotions

Bank has in our everyday life become an integral component both as a provider of financial services and as an employer. Bank interior design is visually better perceivable enterprise's visiting card, having an essential role not only in attraction of clients but also in creation of confidence, in settlement of successful transactions, making of advertising, as well as in stimulation of enterprise employees' work efficiency, functionality, by loosening in people energy, creative strength and by promoting favorable psychological climate in the working environment. Office design is an essential component of enterprise style and culture, already within some minutes making a notion on the bank.

A goal of the present work is to reflect results of bank premises' ergonomic research, where there's analyzed employee's working place, arrangement and premises' conception conformity to employee's individual traits and needs of the job performed. During the course of performance of the research there are fixed and analyzed also employees' emotional associations caused by their work premises and environment.

Research results obtained are applicable in fields as follows:

1. Working environment and premises ergonomic design.
2. Subjects' ergonomic design.
3. Ergonomic design of work and functioning related elements.

1. The Concept of Research

Determining the criteria, which should be observed when designing the working environment suitable for personnel, which would contribute to productive work and suitable working conditions, it is necessary to independently examine and analyse the aspects of technical, human and productive process organization connected with design.

Within the framework of research of the bank interior designing the ergonomics examination was executed in a commercial bank (hereinafter referred to as the "bank") located in Latvia. The goal of research: to evaluate the level of the ergonomic and emotional comfort at the working places of the employees of the Client service centers of the bank, to obtain and evaluate the suggestions for working place improvement submitted by the employees. When polling the employees of the Client service center (*front office*) during the process of research the statistical data were obtained regarding the operating functions and the working place corresponding to the employees' individual traits and the ergonomic observations were carried out at the premises of the Client service centers of the bank. Properly calibrated measuring instruments were applied when taking measurements. The emotional senses of employees, which they most often feel while being at their working places, were clarified as well. The research was executed over the period of time from November 2005 until March 2006 with application of the basic principles of statistical research: (Fig. 1) (Lasmanis 1999).

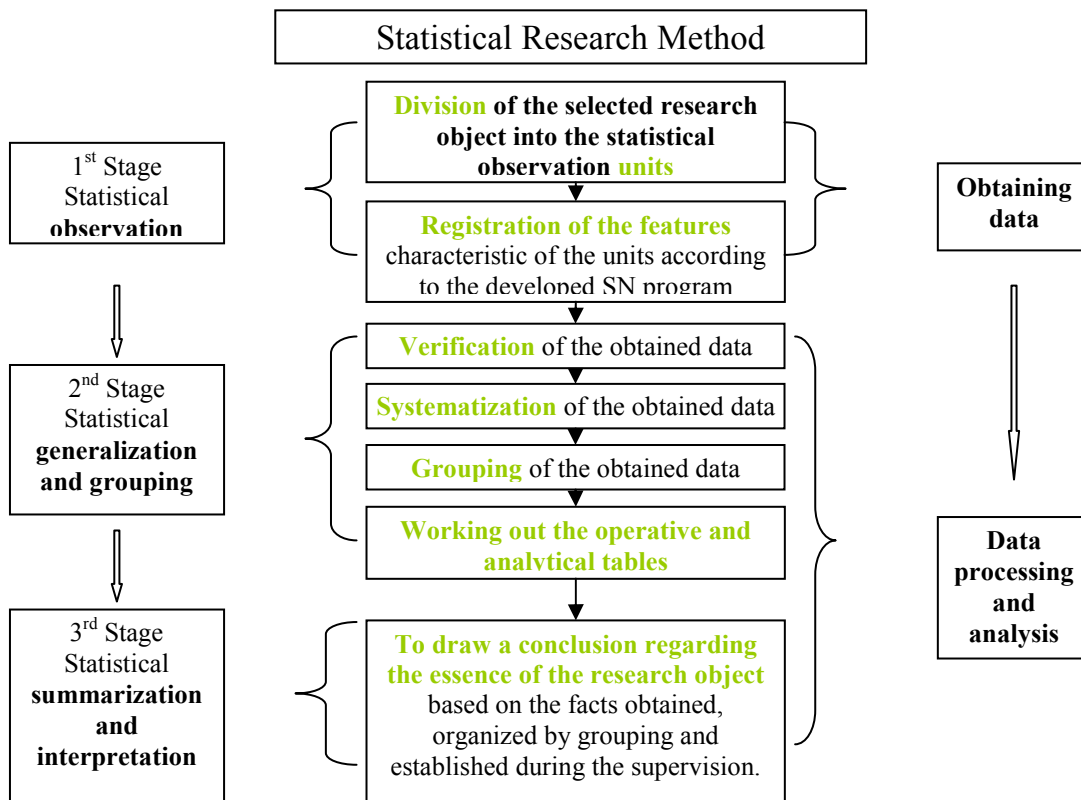


Fig. 1. Description of the stages of the statistical research method

2. Statistical Observation, the Data Obtaining Method

The data were obtained during research by application of the observation method, which was realized with direct participation of the research author carrying out the interviews and personal observations in the Client service centers of the bank of the statistical supervision as well as without direct participation of the research author in the process of polling the employees of the Client service centers of the bank. The polling geographically has covered all regions of Latvia, correspondents - 104 employees, altogether 52% of the total number of the employees of the Client service centers of the bank.

The polling questionnaire on the working place ergonomics included the questions regarding the correspondents (sex, work experience, duties, etc.); the existing working equipment, its evaluation; the existing working facilities (furniture); the working environment.

During the personal research at the Client service centers of the bank the variant pairs of the emotional senses were offered to the employees allowing to choose the most frequently experienced senses in the working premises and the working environment:

Table 1.

No.	Emotional Senses	
1	Uncertainty, anxiety	Clarity, conviction
2	Agitation	Calmness
3	Drowsiness	Cheerfulness
4	Sadnesses	Gladness
5	Nervousness	Comfort
6	Seriousness	Gaiety

3. Statistical Generalization and Grouping, the Data Processing Method

The information obtained during the process of observation was systematized and grouped uniting into the typological and qualitative groups. The grouping criteria:

1. correspondent's sex (female / male);
2. the professional work experience in years (0-5; 6-10; 1-20; 21-35; more);
3. work with a monitor (regular / casual);
4. work with a monitor in hours a day (extensive / with intervals);
5. work duties (to serve the clients / to execute the administrative work).

During the statistical summarization, the showings were established, calculated and analysed with the purpose to understand the basic contents of the material being examined, to plunge into the essence of the phenomenon being **Error! Not a valid link.** and in order to characterize the significance of each factor. The values obtained during research were expressed in percent or numbers.

4. The Results of Research

Of 104 bank employees included into polling 48% were women and 52% were men. The professional work experience of 56% correspondents was 0-5 years; 14% - 6-10 years; 16% - 11-20; 14% - 21-35 years.

The working duties of 98% of the polled employees include servicing the clients offering to execute the financial transactions offered by the bank and extensive (several hours a day) working at the monitor (96%).

Summarizing the research results one should draw the conclusion, that in an aggregate working place ergonomics 49% of employees assessed positive, as execute of work duties conformable, but 47% employees suppose, that an environment, work equipment and conception of working premises, of their work is not concerted with the individual traits of employees.

Summarizing data regarding the emotional senses, which employees most often feel in the working premises and in the environment, it is obvious that the bank employees at their working places most often experience a clarity, conviction (99%), calmness (76%) and cheerfulness (54%). However, as it is shown in the Fig. 2. the employees experience sadnesses, drowsiness and nervousness as well.

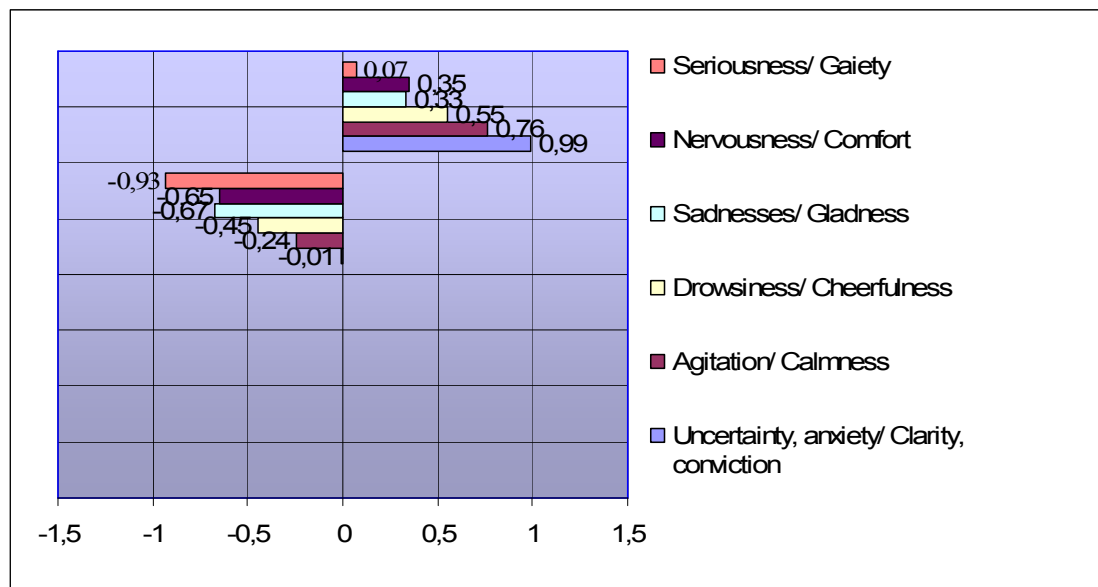


Fig. 2. The emotional sensation at the working place
(the average evaluation by the scale from -1.5 to 1.5)

As research results testify sadnesses, nervousness and drowsiness senses reasons hide in dissatisfaction of employees with a work equipment and working environment. The positives of the being work equipments assessed 51% of correspondents, but unsatisfactory 42%. The in same queue being working environment positive assessed by 44%, but negative 52% of correspondents.

The low evaluation of the working equipment is connected with dissatisfaction of employees with the sizes and the fact that current height of the working surface is not corresponding to the requirements of each employee (Fig. 3, 4).

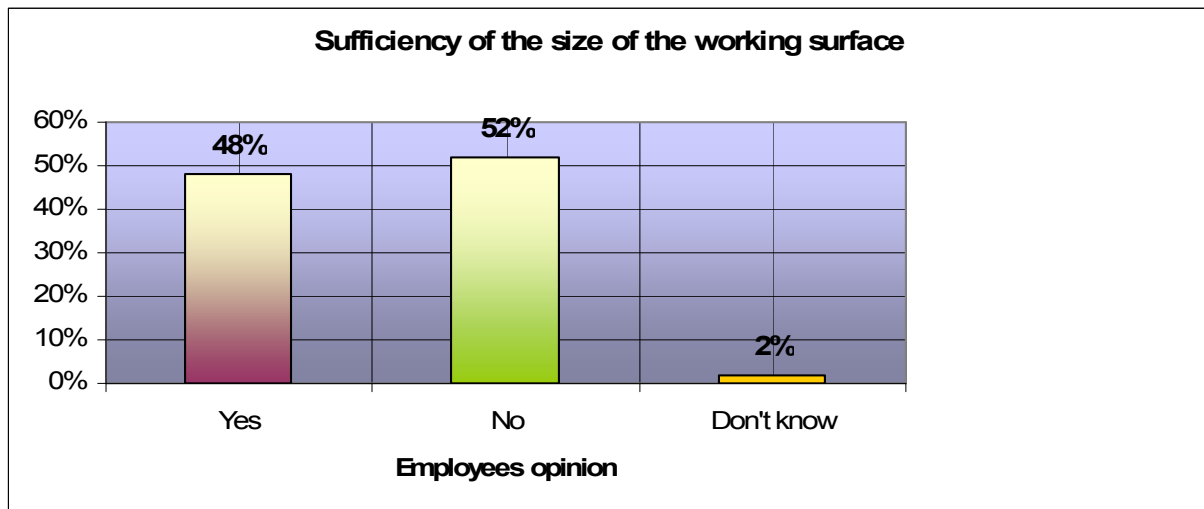


Fig. 3. Sufficiency of the size of the working surface

The Fig. 3 shows that 52% there are insufficient being correspondents working surfaces measure. Designing a working place, above all things, it needs to stipulate the necessary activities area. This in a value, that taking into account distinction of the individual sizes, it needs to take the physical parameters of a larger human group into account, deviating from “average individual” parameters as a decision of planning necessities. For example, when planning the room for placing legs under the table one should take into account the tallest individuals, however in order to place correctly the accessibility level one should take into account the shorter individuals too. However, at the same time one should take into account the individuals positioned between percentile 5 and 95 as well. (Ergonomics at Work, 2005).

Speaking of the working place concept, it is very substantial to create possibility easily to change a working surface height providing the by accordances execute works and body specific. The data shown in the Fig. 4 testify that the correspondents’ table surface height in majority of cases (98%) does not correspond the requirements.

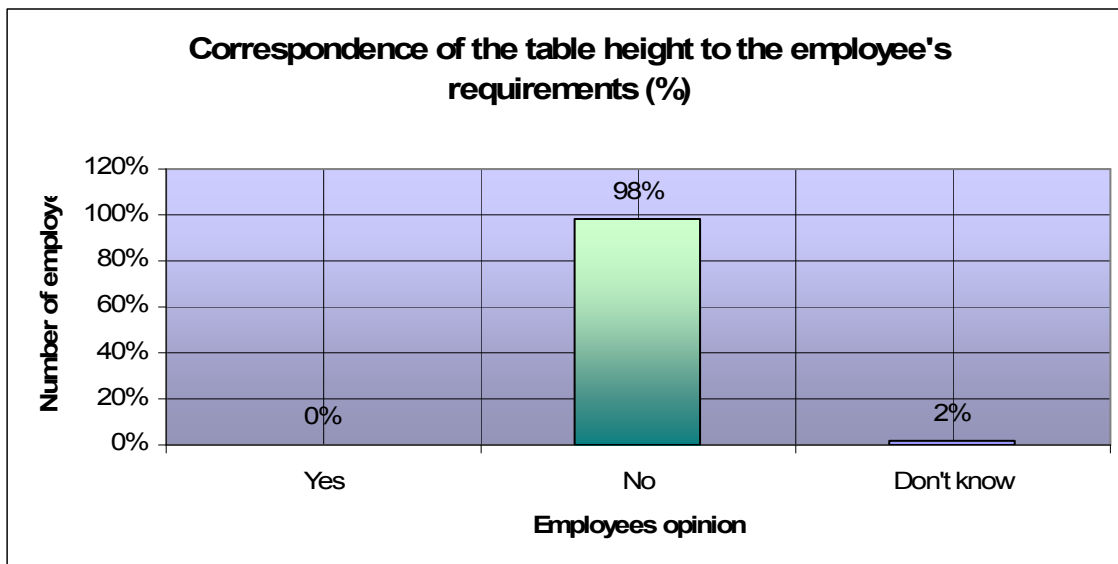


Fig. 4. Correspondence of the working surface height to the employee's requirements

42% of the polled bank employees assessing the working equipment have acknowledged that their chair is not adjusted and comfortable, because the employees cannot fully lean their backs against the back of the seat. However, 66% correspondents have acknowledged that their chair is sufficiently stable.

On the average these employees whose working table surfaces size and height do not correspond to the employees' individual traits, most frequently feel fatigue and drowsiness.

Executing work areas examination 0.5 to in the radius of 2 meters around the employee, where should be work of an operative character execute the necessary objects and elements, one should draw a conclusion that 58% of employees are fully satisfied with work area space and it can in this move without difficulties, still at the same time acknowledging that they should like to improve their functional working environment. From the ergonomic point of view, stipulate the functional working environment various possible dig and strokes of brushes, this exactly in activity areas it needs to place elements, what forms a working environment. A successful placing of the necessary work elements in a working premise with a small effort will allow to execute the necessary motions of manipulations, deviating from unnatural, what causes physical and emotional discomfort.

On a question - whether it is possible to reach the necessary work devices (fax vehicle, printer, etc.) with a direct body top without turns - 82% of the correspondents answered, that it is not possible, 48% the necessary devices arrive at a correspondents operative work with small bend ahead or small turn, but 34% the necessary devices arrive at only with deep bend and distant stretch. The fact that the necessary motions of manipulations execute of work operations have to be carried out with additional effort, negative emotional senses cause the polled employees, such as nervousness, agitation, sadnesses.

As it is seen on the Fig. 5. 92% of employees get access to the necessary working documents by moving, besides 60% of the correspondents have to move to the distance of few steps $\geq 2m$, however 32% have to move to the distance exceeding 2m.

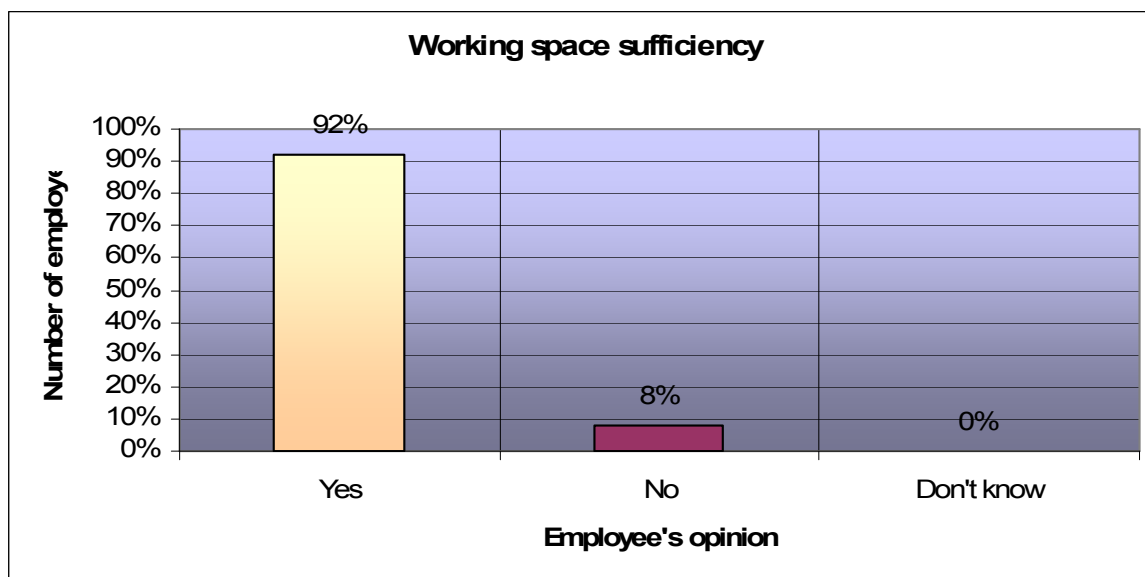


Fig. 5. Evaluation of the functional working environment

Altogether 51% of these employees have acknowledged that during the working time or after finishing work, they experience fatigue, drowsiness and nervousness, which cause the drop of the work productivity and increase of the number of errors.

In order to avoid such emotional senses and enhance the work productivity I offer to design a convertible and mobile module system, which would allow to distribute ergonomically the necessary for operative work equipment and documents according to the employees' individual traits and to create the areas of optimum access.

Of course, it is important to involve the employees already at the project planning phase for the working premises and the working environment, ensuring correspondence of placing of the main elements to the operating functions as well as improvement of the life quality of the employees.

Summary

Based on the results of research of the ergonomic factors of the Client service center premises of the bank, the following facts were established: fatigue of the staff, drowsiness, the causes of the senses of sadness and nervousness. The solutions to stimulate the growth of the level of emotional comfort at the working place are offered in the research.

While developing the concept of the working premises and designing the employee's working environment at the enterprise it is desirable to apply an individual approach for each employee so that to create a working place corresponding to the functions of the performed work and the individual traits.

The alternative variant is to design the convertible working equipment, the easily movable module systems, which would enable the employee to organize his working place according to the requirements of a certain work and the individual requirements as well.

Participation of the employees in all stages of the project realization shall contribute to the development of the ergonomically well-grounded solution of the working place, the application of which is sure to increase the productivity and quality of the employees' work, which in turn shall directly or indirectly influence the development business of the bank.

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Cepurite K. Research of features of bank interior designing

A goal of the present work is to reflect results of bank premises' ergonomic research, where there's analyzed employee's working place, arrangement and premises' conception conformity to employee's individual traits and needs of the job performed. During the course of performance of the research there are fixed and analyzed also employees' emotional associations caused by their work premises and environment.

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Research results are reflected in presentations of pictures. In the conclusive part of the work given there is excerpt of conclusions and proposals, by accentuating most essential cognitions and suggestions.

Cepurite K. Bankas interjeru projektēšanas īpatnību izpēte

Šī darba mērķis ir atspoguļot bankas telpu ergonomiskā pētījuma rezultātus, kur analizēta bankas darbinieka darba vieta, iekārtojums un telpas koncepcijas atbilstība darbinieka individuālajām iezīmēm un veicamā darba vajadzībām. Pētījuma veikšanas gaitā fiksētas un analizētas arī darbinieku emocionālās asociācijas, kuras izraisa viņu darba telpa un vide.

Iegūtie pētījuma rezultāti pielietojami šādās jomās:

1. darba vides un telpas ergonomiskais dizains;
2. priekšmetu ergonomiskais dizains;
3. ar darbu un funkcionēšanu saistīto elementu ergonomiskais dizains.

Pētījuma rezultāti atspoguļoti attēlu, interjeru konceptuālo plānojumu prezentācijās. Darba noslēgumā sniegts secinājumu un priekšlikumu izvilks, akcentējot būtiskākās atziņas un ieteikumus.

Цепуристе К. Исследование особенностей проектирования банковского интерьера

Цель этой работы отразить результаты исследования эргономики банковского интерьера, проанализировав рабочие места работников банка, обстановку и концепцию помещения в соответствии с индивидуальными особенностями работника и исполняемыми функциями. В ходе исследования фиксировалось и анализировалось эмоциональные ассоциации вызываемые его рабочим местом и обстановкой.

Полученные в результате исследования можно использовать в следующих областях:

1. эргономный дизайн рабочей обстановки и помещения,
2. эргономный дизайн предметов,
3. эргономный дизайн предметов элементов связанных с работой и функционированием

В результате исследования отражены презентации образов концептуального планирования интерьера. В заключительной части работы представлен вывод и основные предложения, акцентируя главные положения и рекомендации