Ensuring the Quality of Higher Education in the United Kingdom Using Informatization

Iryna Andreikova¹, Natalia Moiseienko², Petro Boichuk³, Liubomyra Iliichuk⁴, Karina Fedchenko⁵, Oleksandr Bezliudnyi⁶, Ruslan Sopivnyk⁷

- ¹ Candidate of Pedagogical Sciences, Assistant professor of the Foreign Languages Department, Odessa Polytechnic National University, Ukraine
- ² Candidate of Science in Philology, Associate Professor of the Department of English Grammar, Odesa I. I. Mechnokov National University, Ukraine
- ³ Candidate of Pedagogical Sciences, Associate Professor, Rector, Municipal Higher Educational Institution "Lutsk Pedagogical College" of the Volyn Regional Council, Ukraine
- ⁴ Candidate of Pedagogical Sciences, Associate Professor, Associate Professor of the Department of Primary Education Pedagogy, Vasyl Stefanyk Precarpathian National University, Ukraine
- ⁵ Doctor of Philosophy, Senior Lecturer Department of Social Work and Rehabilitation, National University of Life and Environmental Sciences of Ukraine, Ukraine
 - ⁶ Doctor of Pedagogical Sciences, Professor, Professor of English Language and Methods of Teaching Department, Rector of Pavlo
 Tychyna Uman State Pedagogical University, Ukraine
- Octor of Pedagogical Sciences, Associate Professor, Head of Department of Pedagogy, National University of Life and Environmental Sciences of Ukraine, Ukraine

Summary

The United Kingdom is known for the quality of its qualifications. There is a strict quality system with reputable bodies responsible for ensuring that high quality standards are met. In order for new qualifications to be accredited, they must meet all the requirements set out in the regulations for the quality and informatization of Education. The crucial role of the Agency for Quality Assurance of Higher Education (QAA) in the UK for creating high-quality management of higher education institutions is revealed, the influence of informatization tools on its effective mechanism as an independent entity is shown, and positive experience for the educational sector is highlighted. While the universities themselves are responsible for reviewing educational programs at the subject level, the QAA review focuses on verifying internal quality assurance, as well as systems and improvement strategies. The QAA uses a peer review process in which teams mostly consist of academic staff from other institutions to assess the quality of the institution's education. In Scotland, the team also includes an international reviewer. The student is also a member of the Scottish teams. In the UK, attention is paid to providing a cohort of experienced reviewers who can conduct high-quality monitoring and help with advice on improving education. All reviewers must complete training and have permission to participate in the review of educational programs.

There are selected committees that are members of the QAA council, each of which is headed by a member of the Council or an independent person approved by the Council. Attention is drawn to the main areas of the QAA's work in the framework of environmental, social and corporate governance.

Keywords:

quality assurance of higher education, means of informatization, Great Britain, The Quality Assurance Agency for Higher Education (QAA), Quality Management of Higher Education Institutions, quality of Student Education.

1. Introduction

Universities in the UK are independent, have their own special character and constantly prove that they meet the high quality assurance standards set by the government and regulatory authorities. Education in higher education institutions must confirm their quality standard and meet strict established criteria.

The UK higher education funding boards have a statutory duty to assess the quality of the education they fund, and do so through the Quality Assurance Agency for Higher Education (QAA), the UK's Supervisory Authority established by the higher education sector itself.

Improving the student's level, involving him in the quality of educational processes by means of informatization, developing standards and recommendations for quality assurance in the European Higher Education area is an important issue both at the university level and at the industry level.

The purpose of the article: to reveal the crucial role of the agency for quality assurance of higher education in the UK for creating high-quality management of higher education institutions, to show the impact of informatization tools on its effective mechanism as an independent entity, to highlight positive experience for the educational industry.

2. Analysis of recent research and publications

Issues of ensuring the quality of higher education by means of informatization in general and in the UK, in particular, were dealt with by: I. Gyrylovkaya, who reveals the theory and practice of monitoring the quality of professional training of future skilled workers [8], G. Dmitrenko, analyzing Strategic management in the education system [6] I. Tavlui lights up the peculiarities of applying a systematic approach to management in the development and implementation of the quality management system of higher education institutions [20].

Kotiash, I., Shevchuk, I., Borysonok, M., Matviienko, I., Popov, M., Terekhov, V., Kuchai O. expresses on possibilities of using multimedia technologies in education. Tells that the multimedia technologies must meet the goals and objectives of the course and be an integral part of the learning process. The practice of multimedia technologies in the educational process of higher education institutions allows to move from a passive to an active way of implementing educational activities, in which the student becomes the main participant in the learning process. [11].

Shunkov, V., Shevtsova, O., Koval, V., Grygorenko, T., Yefymenko, L., Smolianko, Y., Kuchai, O. study the direction of development that is recognized as the main one in the course of reforms of educational systems in the leading countries of the world - the USA, Great Britain, Canada, Germany, France, etc. The purpose of the application of multimedia technologies of education in higher education institutions is to prepare students for full-fledged life in the information society [18].

Kuchai, O., Skyba, K., Demchenko, A., Savchenko, N, Necheporuk, Y., & Rezvan, O. inspect the role of multimedia education in the evolution of the information society. The information range is skilled both as a separate sector of the economy and as a factor in the modernization of education [12].

Yu. Bobalo, Yu. Danik, L. Komarova, etc developed a monitoring system with spatial and temporal instability of its parameters based on cloud technologies, and a complex of intelligent measuring devices for monitoring [13].

I. Vorotnikova highlights the conditions for using information technologies for monitoring and evaluating knowledge in e-learning. These are digital competence of participants in the educational process; readiness of teachers to conduct monitoring and evaluation by means of Information Technologies, availability of platforms, online systems for organizing monitoring and evaluating the quality of education, access to the Internet [23].

3. Research methods

The general scientific method is a systematic one that is used for a comprehensive study of the features of ensuring

the quality of higher education in the UK by means of informatization. The following theoretical methods are used: comparative-historical, subject-chronological retrospective, comparative, classification and systematization of data.

4. Results and discussion

In 1997, the UK established the Quality Assurance Agency for education (QAA) as the only quality assurance service for higher education providers, an independent body whose charter is published on its publicly available website. The QAA board is responsible for QAA's mission, strategy and policy at the strategic level, oversees all annual reports, and is generally responsible for the company's assets. The board members are trustees of the charity, with experience in higher education in the UK.

The QAA Council has a number of committees, each headed by a member of the council or an independent person approved by the Council:

- access recognition and licensing committee;
- Advisory Committee on the authority to award academic degrees;
- student strategic advisory committee (Eng. SSAC);
- Audit Commission;
- appointment and Remuneration Committee;
- QAA Wales strategic advisory committee;
- QAA Scotland strategic advisory committee;
- QAA enterprises.

The executive director is appointed and accountable to the board. Its role is to provide day-to-day guidance to QAA, including setting and achieving corporate goals in line with the board's strategic direction. Much of this work involves communicating and consulting with external partners and stakeholders (such as government departments. Civil servants; professional, statutory and regulatory bodies; funding bodies; providers and their representative bodies; students and their representative bodies) [1].

Higher education funding boards monitor the quality of research through the Research Excellence Framework (REF).

Let us pay attention to the main areas of work of the UK QQA in the framework of environmental, social and corporate governance (ESG):

- reviews of alternative providers;
- reviews of improvements in Scotland;
- reviews of regulated suppliers in Wales;
- advising United Kingdom governments on applications for university degrees and titles;
- providing key elements of the revised operational model for quality assessment in England;
- Transnational Education reviews;
- managing the quality code on behalf of the sector;

- international strategic activities to maintain global reputation and influence;
- UK higher education sector;
- collaborate with UK governments and other industry bodies to provide expert advice and support policy development (e.g. plagiarism recommendations and essays);
- conducting trainings, guidelines and activities to help UK higher education providers develop and improve their own quality assurance processes;
- program of interaction with providers, students to support higher education in the UK;
- production of publications to support continuous improvement in the sector, including research, analysis, case studies and thematic reports.

Activities that go beyond environmental, social and corporate governance (ESG), includes:

- building national capacity and improving quality assurance abroad;
- building institutional capacity and improving quality assurance abroad;
- external quality control training abroad;
- International Quality Assurance program;
- the concept of teaching excellence;
- access to higher education [10].

The UK is known for the quality of its qualifications. There is a strict quality system with reputable bodies responsible for ensuring that high quality standards are met. In order for new qualifications to be accredited, they must meet all the requirements set out in the regulations for the quality and informatization of Education. Accredited or regulated qualifications are qualifications that are reviewed, recognized, and monitored by regulators to ensure that they meet high quality standards in education informatization and other important criteria. Once qualifications are accredited, they are entered in the Register of regulated qualifications along with a list of recognized organizations that award qualifications. Regulators also have the power to revoke accreditation. On the other hand, uncredited qualifications are not regulated, and there is no guarantee that they meet the correct standards [9].

Each university is the body that awards diplomas, has the right and responsibility for its quality and standards, and when informatizing education, everything is publicly stated on the websites. Individual universities have a primary, multi-year and legal responsibility in quality management to provide their students and provide them with experience. Institutions of Higher Education perform their duties to ensure standards and quality through:

- informatization of Education;
- regulations on awarding academic degrees and other qualifications;
- procedures for designing, approving, monitoring and reviewing the training courses they offer;

- student assessment, including the use of EIT;
- mechanisms designed to engage students in order to engage them in co-creation in their own learning in all aspects of quality assurance;
- respond to feedback and interact with students, employers, and professional, statutory, and regulatory authorities;
- exchange of best practices by means of informatization of education; and dialogue with other universities and QAA, as well as participation in a collective initiative on quality;
- cooperation with QAA and the funding board requires regular institutional review, including the provision of publicly available information [4].

Each university performs these duties with reference to the QAA Code of practice, in turn verifying how they do so through their verification process, which results in a published statement of the degree of confidence that can be placed in each university's ability and manage standards and quality.

Each new educational program proposed within the university will go through a rigorous program approval process including educational informatization techniques. The department awards the degree, which must be justified before the program approval commission in terms of the proposed content, structure, resource, durability, and labor market. The commission ensures informed decision-making, taking full account of academic standards and compliance with the learning opportunities that will be offered to students by informatization tools. The department also takes into account-planned results, their delivery, evaluation, and references to academic infrastructure strongholds [17].

When discussing and approving an educational program, what happens through informatization tools includes teachers from other universities, departments not involved in providing the proposed degree of study, academic colleagues, and experts in subjects from other universities. They may also include representatives from professional, statutory and regulatory bodies (PSRBs) or from the industry and relevant employer groups. This external effect helps to ensure independence and objectivity through informatization tools and, thus, gives confidence in compliance with standards and quality of the degree of compliance [7].

Universities, through informatization tools, regularly monitor and review the effectiveness of each of their courses to ensure quality, make sure that they remain relevant and vital. Annual monitoring, using informatization tools, or in the form of annual reports, is involved in the process of critical self-assessment by the program creation team. They take into account information from a variety of sources, including external examiner reports, student performance data, feedback from employees/students, employers, and any information through student surveys using information tools. Because of

reviewing this information, students studying in this educational program may decide to make changes to the course content, structure, and assessment using informatization tools. In addition to annual monitoring, universities regularly conduct more formal and extensive course reviews. Such periodic reviews are usually conducted through informatization tools every five to six years in order to:

make sure that the courses remain up-to-date and valid; develop knowledge of the discipline and the practice of their application;

assess the degree of planned training of students based on the achievement of results; evaluate the continued effectiveness of curricula, such as talking to employers, and look at employment after graduation;

ensure compliance with recommendations;

take measures to eliminate any identified shortcomings [10].

Periodic review is a strategic part of the work, which involves interaction with internal and external stakeholders and with students studying in this particular program - graduates of the course. Upon completion, the university decides whether to extend the course for a further five-year period and what changes need to be made to ensure that the provision continues to be valid and relevant.

Because of monitoring the quality of education in the UK, a university may decide to close the educational program or the degree of study altogether. If closing is recommended, measures should be taken to accept applications and protect the interests of those involved, in particular students who are studying or accepted for admission to the canceled course. In the code of practice, QAA is a clearly defined process for managing change and order. Canceling courses is just as important as designing, approving, and conducting them [17; 24].

In addition to reviewing individual educational programs, universities are responsible for conducting regular, broader reviews at the subject level. QAA and, in Scotland operates the Scottish Funding Council (SFC), provides guidance to universities in conducting such reviews, for example, in using trained reviewers with elements of external influence in review teams. In England, the Higher Education Funding Council for England (HEFCE) provides information about universities and their educational opportunities, and the results of these inspections are publicly available, as is the financing of higher education by means of informatization. However, in Wales, where the Council of Wales (HEFCW) operates, there are no legal requirements for publishing results. In Scotland (SFC), it is necessary to obtain annual summaries of internal and external reviews from each university, and the expectation is that QAA will build on this in its annual report to the Council. Some Scottish universities create their own accessible reports using informatization tools, in

addition to the QAA reports that are published on the site for each institution [22].

In the UK, assessment by means of informatization is an important part of students' learning activities, and means of production and judgments about how they should be performed are taken into account. All universities have regulations on how students' work is evaluated to ensure standards that are maintained at the proper level and student performance is taken into account. The provisions are supported in the section of the QAA Code of practice and relate specifically to Student Assessment.

In order to achieve fairness, validity and reliability in evaluating students' work, higher education institutions also have policies regarding internal and external moderation of the work being evaluated. Internal moderation can take many forms, but usually involves a second academic review of the quality of student work and confirmation that the grades are correct. In case of any disputes regarding EIT assessments, you can ask to moderate and an academic judgment will be accepted as objective and final [3].

The academic infrastructure created by QAA includes a code of practice, a thematic application test, the basis of Higher Education - qualification and educational program, technical characteristics. The goal is to monitor the quality of students' education and compare learning outcomes by means of informatization with similar courses from other universities in the UK. External examiners provide authoritative advice on the extent to which monitoring of the quality of education, its assessment, verification and determination of the quality of students' educational level is justified and applied fairly [17].

In the UK, public information is provided by universities by means of informatization and is accessible to students, employers and the public. Universities publish the program, technical specifications containing the details of The Bachelor's degree (Master's), courses, knowledge and skills and expected results that the student will have after graduation, and recommendations on how to achieve them. In addition, most universities participate in the National Student Survey, which collects feedback from graduates of the institution studying in their final year of university about their vision of the course content. The results of this survey are highlighted by informatization tools on the university website, along with key statistics, including data on students' entrance qualifications, academic progress, and completion of training and further employment [21].

In addition to their own systems for protecting standards and improving the quality of their regulations, universities in the UK are also subject to a thorough external informatization verification process conducted by QAA.

QAA conducts regular, formal, external university reviews under the title "Institutional Audit" in England and Northern Ireland "Institutional Review" in Wales and Scotland "Institutional Review of Improvement". Such

controls occur every six years in England, Wales and Northern Ireland and every four years in Scotland [25].

Although the review process varies in different parts of the UK, its purpose is to examine the internal quality assurance of education, the quality of university policy, improvement processes, and to enhance evaluation and public reporting by means of informatization of the institution's trust level.

Before the review visit, the university provides QAA with a written self-assessment document. This document contains details of agreements for internal verification of the quality of education in accordance with the standards and the views of the institution on the effectiveness of the structure and mechanisms of the educational process. The Education Quality Assessment document itself is the cornerstone of verification and data processing during the review of the institution by the team, which uses it as a baseline in determining the visit agenda.

Review visits take place in two parts. First, the review team conducts a briefing to each university, lasting about three days, to ensure they have a good understanding of the institution and clarify any issues in the university's self-assessment document. Secondly, a main visit lasts five days. During this time, the review team meets with supervisors, teachers, students, and sometimes-associated employers. At the end of the visit, the team makes a decision on whether the university meets the expectations of management, whether it uses standards and has the quality of education, and submits its conclusion to the website by means of informatization [19].

Student interests are central to the review of an educational program, because it is for them that it is created. Review teams scrutinize a range of issues that directly concern students, including forms, methods and ways of teaching them, youth support; the means by which students can complain about the program or file an academic appeal, their participation in internal audits, etc. In addition, active student representatives participate in key stages of the process. Their representative body, usually the student union, is invited to participate in a meeting between QAA and the institution, as well as in a meeting of the student audit group during the main visit. Students are expected to make a positive contribution to each stage of the educational process. After the review visit, the team prepares a report that discusses university activities to maintain relevant academic standards and the quality of Education. This covers institutional strategies to improve the quality of its educational provision [16].

These reports identify characteristics that the review team considers positive in the practice of educational institutions and offer recommendations on how to improve the institution. In the report, the team summarizes the assessment of the University's reliability, quality management of its courses, and takes into account the expressed academic standards [5].

However, in extreme cases, if there is substantial evidence of serious and fundamental deficiencies in the institution's ability to provide academic standards or the inability to maintain the quality of its educational provision, the team issues a conclusion of "distrust" to such an institution. The team clearly points out the causes and problem areas that caused this judgment. Although such cases were rare in higher education in the UK, where they occurred, the universities concerned quickly corrected the shortcomings. In the UK, QAA publishes the decision to review the educational program on the website of the agency and educational institution, since students and other interested parties have the right to know where problems were identified and how they were fixed. Educational program review reports also discuss its accuracy, integrity and completeness and include information about the University's work posted on the agency's and educational institution's website for discussion [26].

After QAA's visit, universities process the audit team's report and use it to improve the educational program. Within three months of publishing the report, the university must submit an action plan to QAA with an implementation period of 18 months, indicating which one it intends to take into account the recommendations in the report. The review will not be signed until QAA is convinced that the action plan is implemented successfully, with a maximum period of 18 months. If, at that time, the shortcomings are not eliminated, QAA will make a further visit. Failure to comply with QAA's comments may result in interference from the relevant funding body, and QAA reports the date of the next visit [2].

The UK funding authorities are required to check the quality assessment of the provision they are funding. Each of the 10 funding agencies enters into contracts with QAA regarding the quality of insurance services. Each of them receives a copy of the full QAA report for each university within their jurisdiction. When exercising their authority on the quality of education, funding bodies consider these reports and may decide to comment on the reports or discuss specific issues with individual universities. Each funding body regularly meets with the universities it funds, takes into account the results of QAA reviews, and regularly uses them to discuss them. Across the UK, if the funding body is not satisfied with the University's performance, it can suspend funding until the issue is resolved satisfactorily [16].

All UK universities are now subscribed to the Academy of Higher Education portal, which also receives core funding from UK financial councils. The main function of the Academy is to improve the quality of Education. Its mission is to support the higher education sector in providing the best learning experience for all students. It plays an important role in helping universities and colleges improve the quality of student education, working closely with them and with the QAA.

The Academy accredits more than 200 programs, schemes of professional development of students, teachers, and promotes the exchange of best practices. This is a recognition of the personality of his achievements in education, which is supported by scholarships throughout the UK. The Academy has developed a UK Professional Standards Framework that applies to all employees who have had a desire to improve their studies in higher education [14].

Accredited courses will be able to practice in the relevant professional field. This is an important guarantee for the population that uses the services provided by such specialists. For example, the General Medical Council accredits courses in medicine. Based on educational standards, employers participate in the design, approval, monitoring and review of courses at universities that have joint accreditation measures and/or verification events. Courses are re-accredited on a regular basis, usually every five to six years, although professional, statutory and regulatory bodies (PSRB) can be accredited for longer or shorter periods. Professional, statutory and regulatory bodies provide the University with their conclusions during the report and indicate the deadline for further accreditation. Such reports are usually reviewed at the department, faculty, and university level [14].

Conclusions

The UK is known for the quality of its qualifications. There is a strict quality system with reputable bodies responsible for ensuring that high quality standards are met. In order for new qualifications to be accredited, they must meet all the requirements set out in the regulations for the quality and informatization of Education.

In England and Northern Ireland, training for student course representatives, university leaders and student unions is complemented by national training and information activities conducted jointly by QAA and the National Students' Union. Similar arrangements apply in Wales. QAA plans to introduce student membership in the team review. The students are members of the QAA board, the QAA Scotland Committee and the QAA Wales Advisory Committee. These measures clearly correspond to European developments. Increasing the student's level of involvement in the quality of educational processes is the goal of the countries involved in the Bologna Process, contained in the standards and recommendations for quality assurance in the European Higher Education Area. Universities regularly engage students in quality processes through regular feedback and involve staff/student advisory committees in both formal annual monitoring and periodic review activities. The Scottish Education Quality Assurance System gives the student a central role, through the full involvement of student representatives at national,

University and course levels, and students are already part of the QAA verification teams in Scotland. Representatives of student courses who have been trained at their universities and through the development service "Student Partnerships in Quality Scotland as Scotland" (Sparqs). Sparqs also provides advice to student associations and universities, advice to QAA and structural divisions of the Funding Council, which facilitates national debate and the implementation of good practice on all issues related to the student's learning quality experience.

References

- [1] Allen, W. R. & Bonous-Hammarth, M., (2006). Higher education in a global society: achieving diversity, equity and excellence. London: ELSEVIER Ltd.
- [2] Alvesson, M. (2011). Classics in Critical Management Studies. Cheltenham, UK: Edward Elgar
- [3] Brown, S., & Jones, E., (2007). *Internationalizing higher education*. NY: Routledge.
- [4] Bryan C. & Clegg K. (Eds.), 2020Innovative Assessment in Higher Education: A Handbook for Academic Practitioners . London: Routledge". 276.
- [5] Cooper, C.L. (2011). Management research in the UK: a personal view. British Journal of Management. 22(3). 343-346.
- [6] Dmitrenko G.A. (1999) Strategic management in the education system: Textbook. allowance. K.: MAUP. 176.
- [7] Enders, J., & Fulton, O. (2002). Higher education in a globalizing world: international trends and mutual Observations. MA: Kluwer Academic Publishers.
- [8] Gyrylovskaya I.V. (2020) Theory and practice of monitoring the quality of vocational training of future skilled workers: a monograph. Kamianets-Podilskyi: Publisher Zvoleiko D.G. 304.
- [9] HEFCE has developed a policy for addressing unsatisfactory quality. URL: http://www.hefce.ac.uk/pubs/circlets/ 2008/cl21_08/
- [10] Howlett, R. J. (2010). Innovation Through Knowledge Transfer. Berlin: Springer-Verlag Berlin Heidelburg.
- [11] Kotiash, I., Shevchuk, I., Borysonok, M., Matviienko, I., Popov, M., Terekhov, V., Kuchai O. (2022). Possibilities of Using Multimedia Technologies in Education. *IJCSNS International Journal of Computer Science and Network Security*, 22(6), 727-732.
- [12] Kuchai, O., Skyba, K., Demchenko, A., Savchenko, N, Necheporuk, Y., & Rezvan, O. (2022). The Importance of Multimedia Education in the Informatization of Society. *IJCSNS International Journal of Computer Science and Network Security*, 22(4), 797-803.
- [13] Monitoring of objects in conditions of a priori uncertainty of information sources / Bobalo Y.Ya., Danyk Y.G., Komarova L.O. etc. Monograph. Lviv National University "Lviv Polytechnic". 2015. 360.
- [14] Perriton, L., & M. Reynolds. (2004). Critical management education. From pedagogy of possibility to pedagogy of refusal? *Management Learning* 35 (1). 61– 77.

- [15] Porter, C. (2009). Management of Higher Education in the UK. ADEPT, Journal of Higher Education Academy. 3, 26-32.
- [16] QA higher education. URL: https://qahighereducation.com/about-us/
- [17] Quality Assurance Agency for Higher Education (QAA). URL: documents:www.qaa.ac.uk
- [18] Shunkov, V., Shevtsova, O., Koval, V., Grygorenko, T., Yefymenko, L., Smolianko, Y., Kuchai, O. (2022). Prospective Directions of Using Multimedia Technologies in the Training of Future Specialists. IJCSNS International Journal of Computer Science and Network Security, 22(6), 739-746.
- [19] Standards and Guidelines for Quality Assurance in the European Higher Education Area, European Association for Quality in Higher Education (ENQA) (2005).
- [20] Tavlui I.P. (2011) Features of the application of a systematic approach to management in the development and implementation of a quality management system of higher education. Bulletin of Lviv Polytechnic National University. 695. 26-32.
- [21] The National Committee of Inquiry into Higher Education (1997). Chapter 10 Qualifications and standards. <u>Higher Education in the learning society:</u> <u>Main Report.</u> Her Majesty's Stationery Office
- [22] The report of the ENQA Review Panel will be considered by the ENQA Board in November 2008 and the result published. URL: http://www.hefce.ac.uk/learning/ qual/review.asp
- [23] Vorotnikova I. P. (2018) Using ICT for monitoring and evaluating knowledge in e-learning. Web of Scholar. 6(24). 36-39.
- [24] Wilson, D. & McKiernan P. (2011). 'Global mimicry; puttingstrategic choice back on the business school agenda, British Journal of Management. 22. 457–469.
- [25] Wilson, J. & Thomson A. (2006). The Making of ModernManagement: British Management in Historical Perspective. Oxford: Oxford University Press.
- [26] Witzel, M. (2009).Management History: Texts and Cases.London: Routledge.