

**A STUDY OF PRIVATE HEALTH CLUB MANAGEMENT
IN BANGKOK METROPOLITAN**

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**A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARTS (SPORT MANAGEMENT)
FACULTY OF GRADUATE STUDIES
MAHIDOL UNIVERSITY
2004**

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ACKNOWLEDGEMENT

This thesis had successfully been completed with the dedicated contributions of Dr. Prasertchai Suksa-ard, Chairperson of the thesis committee. Gratitude was extended to Dr. Pram Inprom, Archan Witoon Yuttanon, and Archan Weerawat Tongyoddee, who had sacrificed their time accepting to be committee members. Thanks were expressed to Khun Chai Nimakorn who accepted to be member of the thesis proposal committee. The researcher admired and was grateful to all ideas, recommendations, comments, explanations and spiritual supports of all lecturers. The researcher would never forget the sacrifices and collaborations of all health center personnel on their responding questionnaire allowing this research successfully been conducted.

Further, the researcher would like to express her gratitude to all experts in correcting and providing creative suggestions to make the questionnaire perfect viable to be research instrument. Gratitude was extended to the immediate supervisors and all colleagues in Grand Marketing Co., Ltd., Khun Siriporn Temjit, Khun Piyamas Prasitkanaporn, and Khun Supaluk Sutthakhun for their assistance in searching information, data collections, editing, and computer appliances during the researcher was repairing hers as well as their ever cared supports.

Finally, the researcher would like to express beyond thanks to her parents on their endless contributions of wisdom, cultivating learning and ethical-oriented, affections, understanding, cares, attention, distinct drivers during data collections, never indefinite moral and spiritual supports, progress follow-up, and whatever supports they could find to perfect this thesis.

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ABSTRACT

This study was a survey research to investigate the opinions of private health club management in Bangkok. Five dimensions were studied: personnel, place and space, exercise equipment and facilities, activities, and finances. Samples were 211 personnel of the private health clubs and a questionnaire was the instrument in data collection.

Clubs of all sizes - large, medium, or small - placed great importance on all dimensions except for finances which were seen as only of moderate importance and size which was only of moderate importance for the small size clubs.

It is recommended that marketing activities should be organized consistently to publicize the clubs and to increase membership, e.g. new promotions and sports competitions could be organized among different health clubs. Also, staff should be trained to be versatile and able to cover a range of positions.

**KEY WORDS : HEALTH CLUB / MANAGEMENT / FITNESS CENTER /
FITNESS CLUB**

127 pp. ISBN 974-04-4779-1

การศึกษาการจัดการศูนย์สุขภาพเอกชนในเขตกรุงเทพมหานคร (A STUDY OF PRIVATE HEALTH CLUB MANAGEMENT IN BANGKOK METROPOLITAN)

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ศศ.ม. (การจัดการทางการกีฬา)

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บทคัดย่อ

การศึกษานี้เป็นการวิจัยเชิงสำรวจ เพื่อศึกษาการจัดการและความคิดเห็นในการจัดการศูนย์สุขภาพเอกชนในเขตกรุงเทพมหานคร จำแนกออกเป็น 5 ด้าน คือ ด้านเจ้าหน้าที่ ด้านสถานที่และขนาดพื้นที่ ด้านอุปกรณ์ออกกำลังกายและสิ่งอำนวยความสะดวก ด้านกิจกรรมที่ให้บริการ ด้านการเงิน กลุ่มตัวอย่างเป็นเจ้าหน้าที่ของศูนย์สุขภาพเอกชน จำนวน 211 คน เก็บข้อมูลโดยใช้แบบสอบถาม

ผลการศึกษา พบว่า ศูนย์สุขภาพขนาดกลางและขนาดใหญ่ มีระดับความคิดเห็นทุกด้านอยู่ในระดับมาก ยกเว้น ด้านการเงิน อยู่ในระดับปานกลาง ส่วนศูนย์สุขภาพขนาดเล็กมีระดับความคิดเห็นทุกด้านอยู่ในระดับมาก ยกเว้น ด้านการเงิน ด้านสถานที่และขนาดพื้นที่ อยู่ในระดับปานกลาง

นอกจากนี้ ควรมีการจัดกิจกรรมการตลาดอย่างต่อเนื่อง เพื่อเป็นการประชาสัมพันธ์ศูนย์สุขภาพให้เป็นที่รู้จักมากขึ้น และเป็นการเพิ่มจำนวนสมาชิกให้กับศูนย์สุขภาพ เช่น การจัดกิจกรรมกีฬาเพื่อเชื่อมความสัมพันธ์ระหว่างศูนย์สุขภาพ และการจัดโปรโมชั่นใหม่ๆ

127 หน้า ISBN 974-04-4779-1

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CHAPTER I

INTRODUCTION

Backgrounds and Significance of the Problems

The physical exercises are counted as the natural needs of living things. Had when there been no exercises different parts of organs in the body would have consequently been deteriorating. Also, when exercise comes into cession, it means the body also ends growth and finally death. The physical exercises are commonly accepted that they are magnificently useful activities for the activists physically, psychologically, socially, and intellectually, have activities been perfect and appropriate, regular and consistent.

What patterns of exercises be, they typically rely on individuality of exercisers, natural environments, and each intent, which are different.

The physical exercise shapes entire body better. It enhances general physical health better competency, more appetites, better digestion, brighter, nerves work faster, better immune, and excellently reducing risk of heart disease, particularly persons in business and in industry who needs to compete with time and have inadequate time to rest and exercises.

At present, private business and common people including government offices such as Ministry of Public Health, are becoming aware and interested in the significance and advantages of physical exercises. Activities have been publicized to encourage people to turn to exercises under different projects e.g. project of shakings shape happiness, aerobic dance, court to counter narcotics and so forth.

It is witnessed that business of fitness centers run by private are growing to meet the people needs of exercise whether they were fitness centers in hotels, in villages and office buildings. Rationally, the private sectors see the significance of exercises and sports that they are vital to life. Lifestyles in Bangkok are growing the needs to compete with time, facing traffic congestion, and they needs to find their way-outs by seeking places for their exercises. Some choose jogging, swimming, and

some choose exercising in public parks. Some select health service centers run by private or by government provided for people by applying as members of each center. with the different needs, such as convenience to travel for exercises, well equipped with devices, standards and modernity with full facilities and competent trainers, therefore exercise-oriented people have opportunity to select places to meet their needs and their money. When people have opportunity to take exercises, they will become quality people and substantial force for the country.

Health clubs providing services for exercise have distinct management systems e.g. service styles, personnel, equipment and facilities, which rely on each experience and learning. From the related researches of health centers, most study about expectations and needs of health center members and none is found on health club management.

Working in the health club business, the researcher finds that it is highly interesting to survey the management to arrive at approaches in managing health clubs in terms of services systematically providing for members and common people. It includes development to be as foundation of creating standards or pattern in managing health clubs in private and government sectors, for persons of interested preparing to open the clubs and to manage them to the same direction.

To manage health club to achieve goals or objectives, it requires many factors. In this study, the researcher prioritizes four (4) means in management containing

1. Man
2. Money
3. Materials
4. Management

There are different sizes of health clubs in Bangkok , e.g. area, equipment and facilities, service activity, personnel, and members. Opinions of health club management are surveyed in 5 dimensions, i.e.

1. Personnel
2. Place and space
3. Equipment and facilities

4. Activities, and

5. Finances

Opinion survey has been conducted among experienced personnel of the health clubs in Bangkok related to the management mentioned above. It would be concluded as management styles among 3 sizes of the club, i.e. small, medium and large sizes. Details of sizes are discussed in Chapter 3.

Research Objectives

1. To study the private health club management in Bangkok.

2. To study personnel opinions on the private health club management in Bangkok classified by health club sizes.

Scope of Study

Survey is focused on personnel opinions working in the health clubs.

1. Samples

They are personnel of private health club in Bangkok positioned as managers, assistant managers and supervisors of 77 clubs.

2. Variables

- 2.1. The independent variables are statuses of respondents, i.e. positions of work and size of the health club.

- 2.2 The dependent variables are opinion related to the health club management. In this study, it relates to 5 dimensions, i.e.

- 2.2.1 Personnel

- 2.2.2 Place and space

- 2.2.3 Equipment and facilities

- 2.2.4 Activities, and

- 2.2.5 Finances

Preliminary Agreement

The researcher accepts that data contributed by respondents in different health club are reliable and accurate.

Expected Benefits

1. To know the opinions of the health club management on 5 dimensions, i.e. Personnel, Place and space, Equipment and facilities, Activities, and Finances.
2. To be the preliminary information for private and government offices and persons of interest to prepare starting health clubs.
3. To be information in developing health clubs on services and satisfaction for members.
4. To be as guides in applying the development of future health club management.
5. To know preliminary information to start each size of health clubs in line of the same standards.

Definition of Terms

The Private Health Club in Bangkok is referred to a club run by private with establishments and area equipped with devices and facilities for physical exercises provided for members. It also facilitates by providing service personnel, and activities for members. And, it is located in Bangkok.

The Personnel of the Health Club are referred to persons providing services in the health club in the positions of manager, assistant manager, and supervisors.

The Place and Space of the Health Club are referred to location, size of area, interior and exterior designs of a health club.

The Equipment and Facilities are referred to quantity and quality of devices and facilities for physical exercises, i.e. Treadmill, Bikes, Stepper / Stair Climber, Rower Machine, toilet, bathroom, locker, dress room, vapor room and sauna

Activities Served in the Health Club are referred to things provided for members and classes allocated for instruction and training, i.e. aerobic dance, swimming, yoga, and dances, exercise schedules and others.

Sizes of the Health Clubs are referred to distinguishing the size of the clubs allowing the members as indicators. They have been divided into 3 sizes, i.e. the small size have 1-200 members, medium size have 201-500 members, and , and large size have over 501 members.

CHAPTER II

LITERATURE REVIEW

In this study, the researcher has explored theories, concepts, related researches, and documents involving the health club management as contents below.

1. Concepts of physical exercises
2. Concepts of health club management
3. Related researches

1. Concepts of Physical Exercises

An exercise is referred to movement of an organ in any parts of the body or different organs at the same time under impulse or force to do. Consequences bring body reforms from before the movement. It may make that part of the body or many parts deteriorated due to the body state or nature of exercise and the tense of moving that part of the organs. (Choosak Vejpaet, 1976)

Changes after exercises

1. The body loses more calories.
2. Muscles, bones, joints work more.
3. Inner organs, e.g. lungs, heart, and sweat glands will produce more wastes particularly, the carbon dioxide.
4. Temperatures in the body increase, which requires ventilation by perspiration leading the body needs water.
5. Creating exhaustion - when the muscular have been used, the glycogen will be fused for uses. But such fuses create lactic acid in the muscle. This acid will be extinct when the oxygen is inhaled for fusion. However, if other parts of the body overuses of the oxygen or is inadequate of oxygen, this acid will be increased and the muscles will work slower, which is called the “exhaustion”.

Benefits of Exercises

1. Blood Circulation

It strengthens cardiovascular and better effervescence. A regular exercise expands arteries and better flows, which is advantageous to protect and treat neurovasculosis, and heart block..

2. Breathing System

An exercise makes the lungs hard working to increase oxygen and release carbon dioxide expanding and contracting air bag to better release air and phlegm advantageous to asthma and sacularitis.

3. Muscular and Joint Systems

Exercises strengthen muscles and if avoiding such as a bone broken person unusing the part would cause the muscular atrophic.

4. Reducing Cholesterol

Fusion in the body by exercises depends of density of the sport or works. If harder the exercise taken there would be more fusion and on the contrary fat would be accumulated.

5. Reducing Neurotic Stresses

Exercises relax the nerves from stresses because after exercises the nerves will intake oxygen more than normal.

6. Reducible of glucose in the blood.

The aerobic exercise is key in the equilibrium of body and mind and gives advantages as follows:

1. Prolong high energy in each day.
2. Good digestion system and no constipation.
3. Precise and permanent weight controls.
4. Healthy and perfect bones even aged.
5. Increase intuition and competency in work.
6. Sound and quality sleeps.
7. Better controls of down-syndrome and emotional shifts.
8. Releasing stress with alcohol or drug free.
9. Prevention of heart diseases and other deteriorating sickness.

10. Best exercises with least time consumed. (1 hour and 20 minutes a week)

Human body is build to endure hard work, which requires movements all the time. Had the body been prolong motionless, the body would meet deterioration such as spondylagia, deconstricted muscular, fatten at the back, arms thighs, Alzheimer, and drifted emotions. (Wijit Boonyahotara, 1994)

It is not only youth or working group who can exercise but the aged is also viable. The aged has been found with deteriorating organs in general, e.g. white hair, haziness, deaf, freckles, swayed teeth, and activeness. Inner organs are deteriorating causing different functions are incomplete. Human being attempts to seek supports and rehabilitation in different ways. The most popular but saving or least pay is exercises. It is found in medical sciences that when blood circulation increases from one point to another with considerable time, it will impulse the pituitary glands at the brain to extract a chemical substance called “endrophine”, which will spread the entire cells creating happiness, and relaxes as taking opium or morphine. This substance is extracted only by exercises to allow blood circulation and it is only viable with the regular aerobic exercises. (Ek Dhanasiri, 1987)

Before taking exercises, one should have medical examination to use the results as guides in selecting patterns of exercises to meet each physiological condition. One should check the heart effectiveness, and lung capacity. Weerajit Ruangsawad (1997) mentions about the exercises of the aged as follows:

1. Taking exercises with the same age group.
2. Taking exercise before meal.
3. Select pattern of exercise appropriate to the physiological condition of the aged.
4. Type of exercises should not be the immediate movement shifts.
5. A gradual and unspeedy exercises.
6. Unlikely hard to density or heavy uses of muscles.
7. No holding of breath especially with the person of high blood pressure.
8. Enduring and take time.
9. Avoiding competition and gambling.

10. Regularity rather than irregularity; if the body becomes stronger, one should weight more to make the entire body strong and maintaining the level of this definite stamina.

11. Stop when the heart drums faster, stroke, deafening, ear wind release, blurring, breath block, grasping, and pulsation.

12. Observe whether after exercise it produces activeness .It tells the proper exercises taken otherwise exhaustion, which means over exercising.

Thirananant Kaenjanhorm (1996) stated about exercise that strengthens the heart and stop cholesterol. It is the aerobic exercise, which is taken for more than 15 minutes to allow the e body intake oxygen to fuse with the chemical substance in the body to be transformed into energy. During exercises, vessels will be impulse from minor blood vessels to pump more blood. It allows the arteries to also exercise and become better functional the breath and blood circulation system will also be better such as long range running, swimming, and bicycling. The man will be 20% stronger and better than woman will, in terms of aerobic.

An aerobic exercise requires no oxygen to be synthesized into energy but using the energy accumulated in the muscles of the body from what ine has eaten , which is called “glycogen”. Such exercises are lifting things, long throws, long jumps, and so on.

Principles to Find Intensity

First, it needs to find rate of pulsation as following formula.

$$\text{Maximum Heart Rate} = 220 - \text{age}$$

For example, a person aged 30years is $220-30 = 190$ beat per minute, which is the most risk. It should not reach this rate during exercise, since it may get stroke.

After finding the maximum heart rate, the next is to find “Target Heart Rate”. The best is 60-80% of the maximum heart rate.

Formula: $220 - \text{age} \times \% \text{ of the maximum heart rate}$

For example: a 30 year old person has the maximum heart rate at 190 (from $220 - 30$)

60% of the maximum heart rate = $190 \times 60\% = 114$ beat/minute

85% of the maximum heart rate = $190 \times 85\% = 162$ beat/minute

Therefore, a 30 year old person should take exercise under the pulsation between 114-162 beat/minute where it give highest benefit to the heart and cardiovascular system.

When intensity for exercise has been known and then to find how many times to exercise would be easier. When taking exercise till the pulsation reaches the required level (60-85%) , it is necessary to maintain the rate about 15-20 minutes (time) so that the body will bring out oxygen to be fused for energy for further exercises.

Jaroen Krabuonrat (1988) states that exercise should be made in appropriation to each physical state to get best advantage and based on the following principles.

1. Preliminary Exercise: it should begin with soft exercise, less density and simple. After the body has well been adjusted, it may then increase the density and gradually difficult according to the improvements of the body, which is more perfect and stronger.

2. Advantageous Exercise: allowing all parts of the body exercise together rather than focusing on some parts.

3. Daily Regular or Alternative Day or two-day Exercise: It relies on situations and convenience but schedules need to be followed. It is suggested that if there are no limitations, exercises should be taken at the same time, which might be either in the morning after awake or at the evening.

4. Awareness of Physical State: for example, sometimes the body gets temporal weakness either by diarrhea or sleeplessness. The regular exercise would be over tense or there might appear other symptoms such as over exhaustion, stroke, breath blocks, giddy, insomnia, almost collapse. It is suggested to stop had any symptoms found or take a rest or lie prostate on the ground till comfortable and better postpone the schedules at the moment.

Kullaya Tantipalajeeva (1997) states about exercise principles for better health that

1. Duration of each exercise should not less than 20 minutes. Prolong enough exercise will fully impulse cardiomascular, lung and blood circulation.
2. Frequency of exercise: relatively 3-5 day a week exercise will be perfect. If it were less than 3 times a week, the body cannot build fitness since it is irregular and inadjustible. It is more likely create disadvantages.
3. The most convenient time is best for exercise: it might be morning or evening. Improper time to exercise is before bedtime or just after meal since the digestion system is tensed. Exercise after meal affects heart functions.
4. Place for exercise: any places will do, either standing or walking or sitting or lying in bed, or every movement. Place is by satisfaction and convenience ready for exercise.
5. Method of exercise is for health, lowering stresses, exhaustion, and worries. Every exercise taken should be in steps by beginning from a warm-up for 5-10 minutes and taking actual exercise by estimating the physical endurance. It is advisable not to over exercise if too tired. It endangers.
6. Age: exercise is vital to all and every gender particularly those who were over 40 years. Rationally, work and time do not match. Consequences are obese, high blood pressure, high cholesterol, and deteriorating health. Twenty minutes a day for exercise should be recommended. It is not only strengthening the body but also shaping the body and disease free. Even sportsmen after abandoning sports activities, they would regularly take exercise to still functioning of the organ as previously impulse.

Sek Aksaranukroh (1991) states about the moderate principles of exercise as follows:

1. A basic aerobic exercise
2. 50% weight exercise by pulsating
3. 20-30 minute exercise by alternative day but more advantageous if daily.
4. 5-minute warm-up (till pulsation reaches 50%) then keep 50% pulsation for 20 minutes and take 5 minutes relaxes.

5. The type of moderate exercise of a person may vary to time and it should be changed by age and physical conditions.

Sawanya Dej-udom (1987) states about principles of exercise for health as follows:

1. Nature of exercise should fit the age and select the proper pattern
2. Patterns fit the age
3. Correct steps of exercise
4. Regularity: for advantages, it requires regularity and life long exercising. Exercise should take regular movement, proper to heart impulse by age.

Each exercise needs to every time adopt the principles of “**FIT**”, i.e.

F = frequency is referred to 3 times a week

I = intensity is referred to weight of each time of exercise. The pulsation should be 60-85% of the maximum heart rate.

T = time is referred to it should take 15 minutes a time.

Exercises can be classified into 2 major types, i.e.

1. Exercise for Cardiovascular
2. Exercise for Weight Training

The health clubs need to provide equipment for exercise related to the above 2 groups. After exercise for sometimes, it would feel the fitness of muscles and better cardiovascular and easy to enjoy different activities and less tiredness. After exercise for cardiovascular, the exercise for weight should be recommended. It may take alternative day such as Mondays, Wednesdays and Fridays for the cardiovascular and Tuesdays and Thursdays for weight training and so forth.

Exercise for cardiovascular requires the following equipment

1. Treadmill
2. Stationary Bike
3. Rower Machine
4. Stepper / Stair Climber
5. Elliptical / Cross-trainer
6. Arm Ergometers

1. Treadmill

It is the exercise equipment for practice endurance of heart, blood circulation and all parts of muscles in the body, e.g. arm, leg, and the torso. Treadmill is not proper for the aged, joint problems and the obese. Rationally, it requires high stroke during running. But it is reducible by walking rather than running on treadmill to ease the stroke. (Thiranant Kaenjanhorm, 1996) see figure 1, in the Appendix A.

2. Stationary Bike

It is divisive into 2 types, i.e.

2.1 Upright Bike

A stationary bike without back supports, which is advantageous for back pain free. It requires no stroke and proper for joint problems. (see figure 2, in Appendix A)

2.2 Recumbent Bike

A stationary bike with back supports, which is advantageous for the aged and back pain with the rest of back support. (see figure 3, in Appendix A)

3. Rower Machine

It is the imitation of rowing to practice the endurance of heart, blood circulation and all parts of muscles in the body e.g. muscles at arms, thighs, abdomen, and the back. (see figure 4, in Appendix A)

4. Stepper / Stair Climber

It imitates stepping the stairs to practice the endurance of heart, blood circulation and increasing strength and contraction of thigh and hip muscles. (see figure 5, in Appendix A)

5. Arm Ergometers

It helps practice for the endurance of heart, blood circulation, muscles of arms and upper torso. (see figure 6, in Appendix A)

6. Elliptical / Cross-trainer

It mixes the movement of bike and running and a stroke free to joints. It is proper for those having joint problems. It consumes more calories than any other equipment. It moves all parts of the body. (see figure 7, in Appendix A)

Equipments for Weight Training are 2 types, i.e.

1. Machine
 - 1.1 Single Station
 - 1.2 Multi Station
2. Free Weight

1. Machine is divided into 2 types, i.e.

1.1 Single Station

It is referred to specific weight training with one station for a position, advantageous to only a group of muscles and only for one person, e.g. training for the biceps, it needs to use the arm curl only and cannot use this station for other purposes. (see figures in Appendix B)

1.2 Multi Station

It is also referred to the weight training for specific muscles. In a station, it contains more than 2 stations viable for 2-3 positions and it is practical for some who do not have enough space to install the equipment. The weight training is equal to the single station. For example, a multi station is likely designed for 4 stations. Each station can exercise more than 2 positions. Station 1 is meant for 2 kinds of muscles, i.e. the biceps for arm curl and triceps for the triceps extension. Station 2 is for 2 types of muscles, i.e. quadriceps and hamstrings, etc. (see figures in Appendix C)

2. Free Weight

It is referred to normal position of exercise such as stretching the arms, up-down or swing kicks of different organs using pendulum as momentum. Such type allows players position free. The pendulum is dumbbell and barbell. Even the free weight is simple and free position, it has disadvantages of security can control corners of movements. If really needed specific weight training, it would be more difficult to control positions than machine. (Thiranant Kaenjanhorm, 1996) (see figures in Appendix E)

Free Weight is divided into 2 major types, i.e.

1. UPPER BODY is from the waist till the head
2. LOWER BODY is from the waist down to the feet

Muscles popularly needed training for men and good shape is the muscles at chest, back, shoulder biceps, triceps, forearms and abdomen or called the “**UPPER BODY**” while the muscles at legs are unlikely concentrated like women.

Most popular for women are muscles at buttock, hips, quadriceps, hamstring and gastrocnemius, which are called the “**LOWER BODY**”. (see Appendix A)

Major Muscles of the Body are:

1. Chest
2. Back
3. Shoulder
4. Arm Muscles
 - 4.1 Biceps
 - 4.2 Triceps
 - 4.3 Forearms
5. Leg Muscles
 - 5.1 Quadriceps
 - 5.2 Hamstring
 - 5.3 Gastrocnemius
6. Abdominal Muscles

2. Concepts of Health Club Management

American College of Sports Medicine or ACSM (1992) mention about health club management that health club should have 3 areas

1. Nonactivity Areas
2. Program Activity Areas
3. Specialty Areas

1. Nonactivity Areas
 - 1.1 External grounds

Appropriate signage must be provided as required by federal, state,

or local law to designate the following :

- 1.1.1 Entry and exits to and from parking areas and building
- 1.1.2 Location of pedestrian walkways and crosswalks
- 1.1.3 Traffic direction
- 1.1.4 Location of speed bumps and other hazardous areas
- 1.1.5 Vehicle speed limits
- 1.1.6 Sufficient parking space must be made available for all

facility users. Parking lot specifications usually require one parking space for every 200 to 300 square feet of facility space, or enough space for 15 percent of the facility's expected membership level.

1.1.7 Pedestrian walkways must be provided to bring users from either the street or parking lot to the facility entrance. These walkways must be a minimum of 4 feet wide and must be graded to prevent standing water.

1.2 Control desk

1.2.1 A facility must provided a system at the control desk for checking in/signing in all users, guests, and visitors.

1.2.2 A facility must provided a system at the control desk for monitoring accidents and thefts.

1.2.3 All emergency procedures must be posted.

1.2.4 A facility must provided an emergency phone list at the control desk that can be used during an appropriate situation.

1.2.5 A facility must provided a first-aid kit at the control desk.

1.2.6 A facility should provided between 30 and 40 square feet of floor space on the staff side of the control desk.

1.3 Laundry

1.3.1 All wiring and electrical equipment must be inspected and approved by an electrical engineer or inspector for continued use at least semiannually.

1.3.2 All equipment used in the laundry must be inspected periodically and promptly replaced if found defective.

1.3.3 A facility should provide between 150 and 300 square feet of floor space for the laundry.

1.3.4 A facility should provide an additional 6 to 8-inch concrete pad on top of the existing floor of the laundry for the washer extractor, particularly when the laundry is on an upper level floor.

1.3.5 A facility should make sure that venting ducts, electrical wires, and gas lines drop from the ceiling.

1.3.6 A facility should have the following types of equipment : washers-extractors (35 to 50-pound capacities), dryers (50 to 120-pound capacities), two dryers minimum per washer-extractor, slop sink, folding tables.

1.4 Locker rooms

1.4.1 A facility must ensure that all wet areas are cleaned and disinfected on a daily basis.

1.4.2 A facility must ensure that all dry areas are vacuumed and debris is picked up daily.

1.4.3 Staff must supervise the locker rooms on a regular basis during the facility's operational hours. It is recommended that staff check the locker rooms once per hour during nonpeak hours and 2 to 3 times per hour during peak hours.

1.4.4 A facility should provide 15 to 25 square feet of space per person expected to use the locker rooms at any given time. In most instances, a facility can expect no more than 15 percent of its users to occupy the locker rooms at any one time. Usually, the total square footage allocated to the locker rooms will be between 25 and 35 percent of the facility's total space.

1.4.5 A facility should separate the dry areas and wet areas of the locker rooms with a physical barrier such as a door or other structure that completely separates the two areas.

1.4.6 A facility should provide either daily use or permanent lockers for users. If the facility provides daily use lockers, there should be enough lockers to handle about 15 percent of the facility's users. If the facility provides permanent rental lockers, then there should be enough lockers to handle 70 to 85 percent of the users.

1.4.7 A facility should provide the appropriate number of showers in locker rooms to handle the expected usage. Under most circumstances, this will amount to a shower total for both locker rooms of approximately 1 percent of the total membership (for example, for 2,000 members there should be 20 showers).

2. Program Activity Areas

2.1 Fitness testing, health promotion, and wellness area

2.1.1 A facility must incorporate the following equipment into the fitness testing area if blood screens or maximal graded exercise tests are performed : crash cart, ECG defibrillator, and spine board. A physician or another legally authorized individual must have authority over the use of them.

2.1.2 A facility should provide the following space allocations in the design of their health promotion, fitness testing, and wellness area : fitness testing should have 120 to 180 square feet, counseling room should have 90 to 120 square feet, and seminar room should have 20 square feet per participant.

2.2 Exercise classroom

2.2.1 Attendance should be recorded for all group activity functions conducted in the exercise classroom.

2.2.2 Exercise class participants should be encouraged to have an individualized exercise prescription that incorporates exercise frequency, duration, intensity, and progression.

2.2.3 A facility should make every effort to incorporate the following types of group exercise classes into its program : low-impact, combination, circuit training, stretch, progressive resistance, bench or step, dance, and martial art.

2.2.4 The design and construction of the classroom should provide 40 to 50 square feet of space per expected user.

2.2.5 The exercise classroom should have a minimum ceiling height of 10 feet.

2.2.6 Facilities should provide mirrors on at least two of the four walls in the classroom. These mirrors should extend from 6 inches off the floor to the ceiling.

2.2.7 A facility should insulate the walls of the classroom to avoid movement of sound outside of the classroom. Insulation can be best achieved with a double layer of sheet rock, along with at least 4 inches of fiberglass insulation.

2.2.8 A facility should provide equipment that will enhance participant in the class. Examples of such equipment include the following : exercise mats, weights, tubes and bands, and benches and steps.

2.2.9 Sound levels should be kept at 70 to 80 decibels, and should not exceed 90 decibels.

2.3 Fitness Floor

2.3.1 A facility should provide space in its fitness areas for cardiovascular conditioning equipment, resistance training equipment, and stretching activities.

2.3.2 The design and layout of a facility should provide at least 20 to 40 square feet for each piece of exercise equipment. The particular piece of equipment will determine the exact amount of space to be occupied.

2.3.3 A facility should allow for 20 to 25 square feet of space for each person expected to be using the fitness floor at any one time.

2.3.4 A facility should provide the following types of floor coverings for the fitness areas : cardiovascular area should be antistatic carpet treated with antifungal and antibacterial agents, resistance training area same as for cardiovascular area, or rubber-based resilient floor, stretching area should be nonabsorbent mats or antistatic carpet treated with antifungal and antibacterial.

2.3.5 A facility should provide the following types of equipment for the cardiovascular area : treadmills, mechanical stepping devices, bicycle ergometers, computerized cycles, rowing ergometers, upper body ergometers, and cross-country ski machines.

2.3.6 A facility should provide at the minimum one circuit of progressive resistance training equipment (other than free weights) that incorporates a machine for each of the following : gluteus, quadriceps, hamstrings, calves, chest, upper back, lower back, shoulders, triceps, biceps, and abdomen.

2.3.7 A facility should arrange the resistance training circuit in a fashion that allows the user to train the largest muscle groups first and then proceed to the smaller muscle groups. All compound movement machines should appear before isolated movement machines.

2.3.8 A facility should provide the following types of free-weight equipment : supine bench press with safety pins, incline bench with safety pins, smith-type machine, supine bench, adjustable incline bench, cable crossover-type system, pull-up or pull-down system, abdominal system, dumbbells, and olympic-style bar and plates.

2.4 Gymnasium

A facility should provide a regularly scheduled program of both structured and unstructured activities in the gymnasium area that are appropriate for the needs, interests, and goals of the facility users. Examples of activities include the following : basketball, volleyball, badminton, soccer, softball, and pickleball.

2.5 Court sports areas (paddleball, racquetball, handball, squash, tennis)

2.5.1 All court sport areas should be of regulation size.

2.5.2 When more than one enclosed court of a specific type is to be constructed, they should be located adjacent to each other and arrange so that the back walls of the group of courts are separated by a corridor approximately 10 feet wide and 8 feet high.

2.5.3 Enclosed squash and racquetball courts should have cushioned hardwood floors.

2.5.4 As a general rule, a health / fitness facility should have one open sports court per 125 to 150 estimated users per week.

2.6 Pool areas

2.6.1 All activity programming for the pool areas must take into account the unique characteristics of the people who use the areas.

2.6.2 A facility should provide a regularly scheduled program of both organized and free-time activities in the pool areas that are appropriate for the needs, interests, and goals of the facility users. Examples of activities include the

following : swim lessons (individual and group), master swim program, aqua-exercise classes, lap swimming, recreational swimming, and family swim times.

2.6.3 Each pool must have appropriate depth and lane markings. Supplements 24 and 25-yard and 50-meter pools, respectively.

2.6.4 The depth of the water must be marked at maximum and minimum points on both sides and ends of the pool and at the intermediate depth points of break between the deep and shallow ends, spaced at not more than 25-foot intervals.

2.6.5 The depth marks must be in numerals at least 4 inches in height and of a color that contrasts with the background.

2.6.6 The pool must include an area with an appropriate minimum / maximum water depth to accommodate the youngest age group that will use the pool. Exceptions are made in a recessed area of a swimming pool constructed in an irregular shape which allows for a separate children's area or shallow area that is not part of the main pool.

2.7 Outdoor recreational areas

2.8 Running track areas

3. Specialty Areas

3.1 Child care area

3.2 Spa areas

3.3 Physical therapy area

3.4 Climbing wall area

IHRSA (International Health, Racquet & Sports Club Association, 1994) surveys the management of equipment and facility of different health clubs. It is found that each health club installs 31 equipment for cardiovascular and blood circulation. Each equipment can serve 77 member a day. There are 27 equipments for weight training and each can serve 88 members a day including 81 pieces of free weight, which can serve 30 members a day.

From the survey of IHRSA (International Health, Racquet & Sports Club Association, 1994), it is found that in each health club, it contains following equipment for cardiovascular and blood circulation.

No	Equipments	Sets by Approx.
1.	Stepper/stair climbers	8
2.	Recumbent bikes	2
3.	Computerized bikes	7
4.	Non-computerized bikes	3
5.	Training bikes	8
6.	Treadmill	5
7.	Rower machines	3
8.	Computerized rower machines	2
9.	Non-computerized rower machines	2
10.	Simulator ski	1
11.	Upper body bike	1
12.	Stools for weighting	10
13.	Barbells	10
14.	Dumbbells	50
15.	Others	5

William, Robert, Tracy, and Mitchel (1997) mention about health club that the health fitness movement in the United States has unclear origins. Some might argue that the roots of our current health and fitness consciousness began before the 20th century with physical education programs developing in the schools and YMCAs. Others might argue that the health fitness movement is a more recent phenomenon related to the aerobics movement in the 1970s, the explosive construction of commercial fitness facilities in the 1980s, or some other concurrent trend. Regardless of the origin of the so-called fitness boom, the greatest of health and fitness growth has been during the last half of this century. Participation by Americans in fitness activities, for example, has increased exponentially since 1960.

During 1996, there were approximately 20 million Americans participating in some type of health fitness club or facility away from the home. This represents a compound growth of 10 percent during each of the preceding two years. Corporate fitness centers come in a distant fourth as the most popular setting for those who exercise outside the home. No single-purpose facility approaches the annual usage of

the corporate fitness center category. Many individuals use more than one type of facility during a year and would contribute to some estimate inflation in these categories. Nonetheless, from 1987 to 1996 health fitness membership in the health club environment has grown by 51 percent and currently shows no sign of letting up. Yet, with all the growth in activity participation, we are not making a large enough improvement in our exercise behaviors.

Relative emphasis of practitioner roles in health fitness settings

1. Manager
2. Planner
3. Supervisor
4. Educator
5. Exercise leader
6. Motivator
7. Counselor
8. Promoter
9. Assessor
10. Evaluator

Space allocations in health fitness settings (Square feet / Percent of Total)

Area	Space(Square feet)	
1. Administrative	3,095	/ 8%
2. Exercise areas	16,419	/ 42%
3. Warm-up areas	3,895	/ 10%
4. Mutipurpose	1,375	/ 4%
5. Locker rooms	6,450	/ 17%
6. Storage space	1,027	/ 3%
7. Laundry	422	/ 1%
8. Nursery	774	/ 2%
9. Snack bar	844	/ 2%
10. Circulation	4,458	/ 11%
Total square feet	38,729	

The programming this setting offers must either independently generate a profit or contribute to the professionalism and profitability of the club through intangible means, such as member satisfaction and retention. Programs, such as classes in martial arts and yoga, or services, such as massage therapy, have the ability to independently produce a profit while offering a service to the membership.

In fact, of the top 20 club programs listed in the 1994 International health, Racquet & SportsClub or IHRSA (1994)

Top 20 club programs (programs most commonly offered by clubs)	
Program*	Percent
1. Fitness evaluation	87
2. Step and bench aerobics	84
3. Personal training	81
4. Strength training	78
5. Child care	66
6. Cross-training	62
7. Weight control	61
8. Nutritional counseling	61
9. Massage	60
10. Corporate programming	56
11. Exercise prescriptions	51
12. Seniors' programming	46
13. Aquatic exercise	45
14. Special programs, diabetes	43
15. Juniors' programming	40
16. Competitive sports	40
17. Martial arts	38
18. Yoga	38
19. Health-education programs	34
20. Children's programming	31
* Potentially profit-generating programs are in bold.	

Facilities should provide in health fitness.

1. Locker and shower rooms
2. Exercise areas
3. Gymnasium
4. Weight-training room
5. Outdoor and indoor tracks
6. Courts
7. Swimming pool
8. Classroom(s)
9. Child care center
10. Medical clinic

Group exercise or aerobics classes have long been a popular program in fitness centers. These programs attract members, typically women, who enjoy the social and motivating atmosphere of group exercise. The quality of these programs is often a factor in membership sales figures as well as member retention and attrition rates. Simply offering a group exercise program is not enough. The program must continually grow to meet the changing needs of the membership. To offer a high-quality group exercise program, you need a group exercise director motivated to oversee the continual improvement of the instructors and classes. In addition, health clubs should have pro shop sell apparel, fitness accessories such as weight training belts and gloves, convenience items such as socks and toiletries, Racquet strings, Racquet grips, swim goggles, and special items such as exercise watches and nutritional products. The locker room should provide approximately 15 to 25 square feet of space per person expected to use the locker room at any time. Health fitness facilities should provide an adequate number of showers in the locker room to handle expected usage; a shower total of approximately one percent of the total membership is usually adequate. For example, for 2,000 members there should be a total number of 20 showers. Most facilities have abandoned gang shower arrangements in the men's areas in preference to single-stall setups. Other equipment, such as hair dryers and grooming accessories, are frequently provided in locker rooms as well.

For certain programs, the availability of space can be classified as an equipment consideration. Allocate the fitness testing, health promotion, and wellness areas enough space and equipment to perform their expected functions. Fitness testing should provide space amount 120 to 180 square feet and equipment needed in space: bicycle ergometer or treadmill, skinfold caliper, anthropometric tapes, sit-and-reach bench or goniometers, tensiometers or strength equipment, blood pressure equipment, scales. Counseling room should provide space amount 90 to 120 square feet and equipment needed in space: office furniture. Seminar room should provide space amount 20 square feet per person and equipment needed in space: audiovisual equipment, tables, chairs.

3. Related Researches

Domestic Related Researches

Sayan Kutakarn (1995) studies "Needs of Services for Exercise for Exercisers in the Sports Center of Sports Authority of Thailand." It is concluded that

1. What needs most on period of exercises for people using the Sports Center, Sports Authority of Thailand is during 16.00 - 19.00 hours. It is likely that most exercisers are running business such as working, and studying. They require leisure hours to take exercises and mostly in the evening, which are the free hours from work.

2. What need most on place, equipment and facility are adequate lights provided in the Sports Center, Sports Authority of Thailand. What moderate needs are adequate space for parking, proper ration of space to meet exercisers, areas for rest before and after exercises, beautiful and shady area, clean and hygienic, adequate bath rooms, dressing rooms, and toilets, adequate and standard kiosks to sell food and beverage, modern and standard equipment for exercises, adequate coolers for drinking eater, adequate lockers to keep equipments and devices, and adequate public telephone booths.

3. What need most on trainers allocated by the Sports Center, Sports Authority of Thailand are proper dresses, capacity in being umpires, coaching on skill development of exercisers, regularity and punctuality, proper personality and human relation, dedication for exercisers, creativity in adequately encouraging exercisers. What moderate needs are adequate number of coaches to match exercisers, interest and attentiveness to exercisers, and adequately demonstrating activities for exercisers.

4. What moderate needs on exercisers management using the Sports Center, Sports Authority of Thailand are adequate service and guidance, proper sound on line, proper fees, proper publicity on services, first-aids room, physician, and adequate first-aids equipment, convenient to contact the staff, proper fitness test after training, properly allocating security guard for members and their properties, proper medical examination before and after exercise, proper publicity on knowledge and exercise manuals.

In 1983, the Department of Physical Exercise and Health studied, “ sports and Exercises of People in Bangkok.” It was to study sports and exercise condition of people in Bangkok and to propose findings to be a guides in running the efficient sports and exercise promotion. 657 people of males and females at all age level were respondents. Survey-based Questionnaire was the instrument for data collection. It contained the general status of the respondents, interest of exercise, nature of sports and exercise and reasons of joining or rejecting to join sport activities and exercises. The findings were:

1. A type of sports/ exercises most interested by people is soccer.
2. Sports activities/exercises most regularly played were exercises and jogging.
3. Day and time for sports/exercise for most people of both genders was evening, more than 1 hour and 1 hour respectively and 1-2 times a week with unfixed date.
4. Reasons of playing sports/exercises of people were for health and stamina.
5. Reasons of rejecting sports/exercises were not free.

Rattanaorn Tantakanjanaphan, (1987) studies, “ Needs of Exercise Services of Police under Samyod Suppression Division.” It is found that

1. Need most about place, equipment and facility to adequately serve members.
2. Much need to allocate potential personnel to coach exercises.
3. Need Samyod Suppression Division to entirely support welfare and budgeting for sportsmen and members need to pay fees either monthly or annually.
4. Much need on technical and skill services of exercises
5. Need services on physical exercises
6. Need most exercise during .30 – 18.30 hours in weekdays and 07.00 – 08.00 hours in weekends.

Anchana Panich (2001) studies, “ Needs of Exercises of Rajbhat Students of Western Group.” It is to compare needs of exercises of Rajbhat male students and female students concentrating on 4 dimensions, i.e. academic, service, equipment, place and facility, and physical fitness test. 676 respondents are 207 male students and 469 female students by multiple classification sampling. It is found that:

1. Students need exercises at high level
2. There is no statistically significant difference among Rajbhat male students and female students needed exercise at .05 level.

Chatruedee Suban Na Ayudhya (1990) studies, “ Needs of Exercises among Lecturers of Institute of Rajmangkala Technology.” It is found that:

1. Needs of exercise is at high level.
2. Needs of exercises among lecturers in Bangkok are statistical significance indifference from province at 0.05 level excluded patterns of activity organization has statistically significant difference at 0.05 level.
3. Needs of exercises among lecturers from 7 groups are groups of common, agriculture, industry, commerce, household sciences, arts, and teaching supports have no statistically significant differences at 0.05 level excluded pattern of activity organization compared by pair test, it was found that the household group has statistically significant differences with the agriculture and industry groups at 0.05 level.

Weerawat Panyaburapha. (1994). Studies, “ Expectations of Exercise Management to Promote Health among Health Club Members in Bangkok.” It is to compare the expectations of exercise management to promote health among health club

members of both genders in Bangkok. Questionnaire has been delivered to 360 members. It was found that:

1. Members of both genders have high expectations in the exercise management on duration, i.e. evening after works for weekdays (16.30 – 19.00 hrs.). Activities are jogging, swimming. Academics are knowledge of exercise. There are almost high expectations concerning place, equipment, facility and service personnel.

2. Comparing means of expectation in exercise services among male and female members, it is found that there is no statistically significant difference at 0.05 level on most items.

Sumalee Prasertwattana. (1999) studies, “ Results of Swimming and Study the Value of Differences among Pregnant Taking Exercise in Water and Common Pregnant Affecting Contour of the Waist, Pulsation during Rest, Weight, Womb Size, and Percentage of Cholesterol of Sample Groups Admitted their Wombs with Somdej Pra Pinklao Hospital, and 20 week- pregnant applied to be members for exercises at Aqua Fitness Co., Ltd., with the age of 26-30 years for the first group. The control group contains 10 pregnant, and the experiment group, who contained 10 pregnant, who experiment program of exercise in water. Exercises tare taken 3 times a week for 12 weeks. The test of body changes is taken before and after experiment at 4th, 8th, and 12th weeks.

It is found that when variance has been analyzed within control group, the contour of waist of womb size and percentage of cholesterol have statistically significant difference at .05 level. It is found similar with the experimental groups, i.e. contour of waist, womb size and weight have statistically significant difference at .05 level. Analyzing between control group and the experimental group, it is found that there is different of cholesterol after 4th week test. It is also found that the contour f waist, pulse during rest after 12th week of the test have statistically significant difference at .05 level. The finding s are the experiment group taking water exercise had slower changes than the control group, which will be advantages to the health of the pregnant at present and in future.

Jaroen Krabuonrat et al (1982) studies, “Needs of Exercise Service for Health Promotion of Civil Servants and Students of Kasetsat University.” It is found that:

1. Civil servants and students have high level of needs on exercise service for health promotion.
2. Civil servants and students want most the university to adequately provide place, devices and facilities and expert of each field to coach. The second was needs of knowledge on techniques, rules of competition and public relations.
3. Civil servants need service of shaping, swimming, lawn tennis, and badminton while students need swimming, soccer, and lawn tennis.
4. On weekdays, civil servants and students need exercise during 16.30 – 18.30 hours while during weekends, civil servants need 08.00-10.00 hours, but students need 16.30-18.30 hours.
5. Place and devices are inadequate.

Nopporn Tassanaiyana (1978) studies, “Problems of Attitudes and Needs of Physical Exercise of Students in Mahidol University.” It is found that most students take exercise for 1-2 hours each week by average. The major problem makes students avoid physical exercises organized are inadequate place, devices and facilities. The second problem is the inadequacy of trainers. Others are ineffective publicity and not supported by the management. They believe that taking correct exercise to principles and regularly build immune for the body and they encourage establishing sport club and center or directly responsible agency of sports to manage and to promote the sports of the university.

Petcharat Hiranchart (1986) studies, “Needs of Health Exercise Management and Fitness of the Body of Personnel in Private Organizations in Bangkok.” It is found that personnel of private organizations in Bangkok need exercise management to promote health and fitness in different areas as follows:

1. In areas of service provider, they are personnel of good relations with all divisions, courtesy, sportsmanship, strong morality, stable emotion, good behavior, good personality, physical and psychological healthiness.
2. In areas of place, devices and facilities, they are adequate dress rooms, hygienic bathrooms. Places for exercises are divided into basketball court and badminton courts.
3. In physical fitness’ test, they are annual services of medical check-up by x-ray, and places to train fitness promotion activities.

4. In academic areas, they are knowledge of nutrition, principles of first aids and safety, techniques and skills of exercises.

5. In activity areas, they are swimming, badminton, and martial arts.

6. Times of exercises are 16.00-18.00 hours for weekends and 18.00-20.00 for weekdays.

Relating needs of activity patterns provided are all kinds of activities organized 1-2 times annually except exercises and timing activities, which should be more than 6 times a year.

Comparing needs of exercise service to promote health and fitness between male and female, it is found that there is no statistically significant difference at .05 level except needs of exercise service activities, which have statistically significant differences at .05 level.

By variance analysis, it is found that 10 categories of personnel among private organizations in Bangkok needing exercise services to promote health and fitness in all 6 dimensions have no statistically significant difference at .05 level.

Chalongchai Marnkhoksoong (1994) studies, "Needs of Exercise Service among Students and Personnel in Khonkhaen University." 766 students and personnel of every faculty and office in academic year 1991-1992 are samples. It is found that there is high level of need in exercise service. It is found with the comparison on needs of exercise services between (a) students and personnel, (b) male students and female students, (c) male personnel and female personnel, (d) age span of male students, (e) age span of female students, (f) age span of male personnel, (e) age span of female personnel that there is no statistically significant difference at .05 level.

Padoongsit Samart (1996) studies, "Needs of Exercise among Police in Metropolitan Police Division" to compare the needs of exercise between the commissioned police and the noncommissioned police and to compare needs of exercise among police in lines of office job, investigation job, interrogation job, suppression job, and traffic job. Samples have been selected from 500 police by multi-level sampling. It is found that there is high needs of exercise in every item as following respective order, i.e. patterns of activities, place, devices and facilities, trainers, physical fitness test, academics, exercise management, activities, and period of time. There is no difference in the needs of exercise between the commissioned

police and the noncommissioned police exempted the difference of exercise management only. There is no difference in the needs of exercise among police in lines of office job, investigation job, interrogation job, suppression job, and traffic job exempted the period of time. Comparing by pair, it is found that there is difference between the line of office job and the traffic job.

Nakoh Boonkong (2002) studies the comparison on needs of exercise among students and personnel of Siam University. Samples are 1,781 students containing 733 male students, 942 female students, 53 male personnel, and 53 female personnel, who are study and working in the Faculties or offices of the university, Academic Year of 2002. Five (5) areas of studies are academic, service providers, devices- place and facilities, physical fitness test, types of activities, and period of time. It is found that 1) there is high level of needs for exercise. 2) There is no difference of needs among male students and female students relating to the academics, the service providers, the physical fitness test, the types of activities, and the period of time exempted the devices- place and facilities. 3) There is no difference of needs among male personnel and female personnel relating to the academics, the service providers, the devices- place and facilities, the physical fitness test, the types of activities, and the period of time exempted the physical fitness test. 4) In general, there are no differences of need among students and personnel exempted the physical fitness test.

Thippakorn Rangkhasiri (1984) studies, "Marketing the Health Club in Bangkok." It is found that during 1-2 years recently health clubs have more been opened and they still growing for the next 1-2 years. Attracting customers is more highly competitive. Strategic location is key to this kind of business. Marketing strategies are promotion, diversified services, service development, segmentations, and differentiation or spiritual values. Pricing is not on cost but by trends of market price, target groups, and the competitive positioning. Marketing customers is by advertisement, public relations, and demonstrations, to attract consumers' walking-in. Sales-persons, staff and even customers or members market customers and earn commission, rewards or free service and so on. Besides, it is also found that this type of business is volatile demands and also seasonal.

Key reason to use the services of customers and members, at present, is healthiness and the second is reducing weight. Most customers and members will respond that results are satisfactory after the services. Motive driving to use health club is the adjoin location to home or office. Almost half of respondents generally respond that they are interested in health club not restricted only in the ratio or weight from standards. However, few numbers of respondents expected that they would apply as members on the basis that they do not have adequate free time. Consumers with uninterested in health club respond that it was over wasting.

Problems and limitations of health club are the non-interest of exercises for the Thais, high taxation of devices, volatile demands, economic situations, less free time, restricted service space, which may cause congestion in some period of time, and staff.

It is recommended that build understanding and seeing values of exercise more by publicizing knowledge and attraction could be collaborated with other health clubs or suppliers or distributors of devices. Quality service, cleanness and devices should be developed by more marketing focused on the existing location of the club. Strategy for low season during Christmas and New Year should be sales of membership, and gift vouchers apart from price deduction of fixed period and timing during sales promotion.

International Related Researches

Wayne Westcott (1996) mention that there are many different training programs for increasing muscle strength, some pose a high risk of injury, while others require a major time commitment. What you need is a program that has been thoroughly tested for safe, effective, and efficient strength development. A sound strength training program should include exercises for all of your major muscle groups. If you select your exercises carefully, your muscles will develop in balance with each other and you'll have a firm foundation for further improvement. For example, you should not emphasize some muscle groups over others because this can result in muscle imbalance injuries. This procedure produced relatively strong quadriceps and relatively weak hamstrings, which set the stage for hamstrings injuries.

I soon learned the importance of a comprehensive training program to develop overall muscle strength and to reduce the risk of injury. Do your best to exercise your larger muscle groups first, followed by your medium and smaller muscle groups.

Gary Moran (1997) mention about exercise with cross-training that cross-training offers tremendous improvements in your overall aerobic and anaerobic endurance, muscle strength and endurance, and flexibility and agility, all of which will improve the performance of your primary sport. These are some specific benefits of cross-training.

1. **Aerobic endurance.** Cross-training activities such as distance swimming, distance cycling, and aqua jogging (running or jogging in the water with a floatation vest) are very effective in increasing the ability of the cardiorespiratory system to supply oxygen to the working muscles. Nordic and Alpine skiers often use cycling and distance running during the off-season to maintain aerobic fitness.

2. **Anaerobic endurance.** For speed, sprinting, and power sports, where energy is needed to power short bursts of maximal performance, anaerobic endurance (endurance that relies on energy for stamina without requiring the presence of oxygen) is vital. Sports such as middle-distance swimming, middle-distance running, and wrestling are just a few examples of activities where the body depends on the energy stored in the muscles. Rowing machines, Versa Climber, and plyometrics are excellent cross-training activities for enhancing anaerobic endurance.

3. **Muscular Strength.** Muscular strength and power provide the basis for the majority of sport activities, especially those that rely on quick, explosive movements. A number of cross-training activities that can overload the muscles by subjecting them to a greater-than-normal level of stress-such as stair climbing, weight training, and plyometrics-provide strength gains that athletes may not receive through training only in their primary sport.

4. **Muscular endurance.** Muscular endurance requires repetitive muscle contraction against a resistance for extended periods of time. This kind of repetitive movement is common in such sports as rowing, gymnastics, long sprints, wrestling, and swimming. As strength increases, there tends to be a corresponding increases in endurance. Increased strength will also result in the ability to increases the number of

skilled repetitions. For example, in rowing, the ability to increase the number of strokes per unit of time is integral to success.s

5. Flexibility. Almost all sports require good flexibility. Cross-training activities, such as yoga, ballet, or gymnastics, that require a wide range of joint movement or a specific stretching program can enhance flexibility. Flexibility exercises reduce the possibility of aches, pains, and inflammation associated with joints stressed through rigorous activity.

6. Warm-up and cool-down exercises. Warm-up and cool-down exercises help maximize the potential of each training period by preparing your body for vigorous activity. They also enhance your ability to recover from a long, hard workout by slowing the heart rate gradually and helping to prevent muscle injury and soreness.

7. Injury prevention. Strength improvements yield greater protection against injuries, particularly overuse injuries. Cross-training works muscle groups other than those needed in the primary sport or uses the primary sport's muscle groups in different patterns, allowing more areas to share the training stress and reducing stresses on muscles, tendons, ligaments, and bones.

8. Injury rehabilitation. Cross-training activities allow you to continue to train and prevent detraining when you cannot participate in your main sport due to an injury. Cross-training can even help to rehabilitate an injury.

9. Mental breaks. Cross-training with other sports or activities provides a mental vacation without detraining or a loss of the fitness level. This can be very effective for breaking through the doldrums or plateau in training. Variety can add spice to your fitness program and increase your motivation.

10. Training extension. Cross-training allows you to perform additional work within your primary sport with less risk of overtraining or injury. Suppose, for example, you are a distance runner who usually runs 35 to 40 miles a week effectively without injury. When you attempt to increase your mileage to 45 miles a week, however, you repeatedly become susceptible to overuse injury. In this situation, a cross-training program can help in several ways.

Yamaguchi and Okada, (1988) studies the application of health club members by the perception of service users. It is found that even having opportunity to involve in sport activities and exercises but the intention to participate is less. The

objectives of this study are to investigate factors in participating as member of the health club under the perception of service users. Those factors are 1) satisfaction of devices, place, and facilities 2) satisfaction with staff, and 3) satisfaction with exercise activities. These data have been collected from 188 members among 5 private health clubs in Tokyo, Japan. Data analyses is based on relationship between the independent variables and dependent variables. Hypotheses are to explain factors facilitating to be a member of the health club, which are the 23% satisfaction of exercise activities, participation as being club member, and being meritoriously considered.

Ogura and Yamagachi, (1988) studies on causes of leaving membership of a health club: a case study of the management. It is found that number of health clubs have been increasing during recent 5 years in Japan. It has been the awareness of healthiness. However, numbers of resignation form membership become critical to the club. The objectives of this study are find relationship between frequency of membership application and resignation. Data have been collected in Tokyo from 3,000 respondents. Samples are new member (N=236) being members during May 1987. They are classified into 3 groups by frequencies of using services during first 2 months. Group 1 is the frequency of less use (0-1 time), Group 2 is the moderate use (2-5 times) and Group 3 is often uses (6-31 times). Means on level of resignation is least among 3 groups. The frequency of often uses illustrates the consistent stability of uses during the first 2 months, which would decide whether to resign from being the membership.

Charles Bucher, and March Krotee (2002) mention that the main auxiliary rooms that must be considered in facility planning are equipment, supply, checkout, custodial, and laundry rooms. The swimming pool should be located on or above the ground level, have a southern exposure, be isolated from other units in the building, and be easily accessible from the central dressing and locker rooms. Other special activity areas also requiring special attention include those involving dance, gymnastics, strength training, wrestling, martial arts, racquetball, handball, squash, and ice hockey. Weight training and open fitness are very popular activities for both girls and boys. A minimum of 2,500 square feet should be provided with both fixed and free weights available. Racquetball, handball, and squash courts are common, particularly in colleges, universities, and club settings. Each four-wall court is 40 feet

long and 20 feet wide, with a ceiling height of 20 feet. Since the passage of the Architecture Barriers Act of 1968, more consideration has been given to the facility needs of people with disabilities. Physical education and sport facilities in particular are concerned with the students' and participants' programs of specialized developmental exercises, perceptual-motor ability activities, health-related and fitness activities, modified sports, stress management, rest, and relaxation. Facilities for individuals with disabilities usually vary from school to school and according to the disabling conditions of those served. Facility management is an important managerial responsibility. It requires prudent planning based on physical education and sport program philosophy and participant, school, and community needs, taking health, safety, and environmental conditions into consideration. Predicted demand, cost of facilities, timing and business strategy also play a key role.

Body Life magazine, club profile, mention about sports club that health club grow larger and larger, the size of a club needs to be just right to accommodate the requirements of the customer base and the available resources of the operators. In previous club profiles, BODYLIFE presented predominately Big Clubs. This time around, we will take a look at the other end of the spectrum: a small club that's proof positive that bigger isn't always better. At first glance, the club looks so small that it's almost laughable. In fact, the whole club is less than 200 square meters in size, including dressing rooms and reception area. The strength & Cardiovascular area combined is only 90 square meters, with the Aerobics room being 70 square meters. According to Lars, who founded his club in Nykarleby, the size of the club is not an issue. "The real issue is square-meter revenues." The real issue is that fitness clubs have to offer a concept that appeals to my generation. Most of my generation doesn't want to spend hours and hours in the club. We have plenty of other things to do, so we want a workout that is fast, efficient, and enjoyable. The McDonald's concept "We think of ourselves as the McDonald's of the fitness industry. You enter our club, you do your thing as effectively as possible, and then you leave. Needless to say, everyone is welcome to stay as long as they want and every member has the option to do so. We find that most members exercise for about 30 to 45 minutes. When they are finished, they usually like stay around and talk for a while and then they are off," explains Bjarne, has a PhD in exercise physiology.

It is concluded from the related researches that most study on needs of health club management of students, civil servants, personnel or people who provide services in the government and private sectors. There is no study on opinions of health club management. Therefore, this study would be most advantageous for people who need exercises and those involved in managing the health clubs.

CHAPTER III

MATERIALS AND METHODS

The methodology of this survey research on “A STUDY OF PRIVATE HEALTH CLUB MANAGEMENT IN BANGKOK METROPOLITAN” has used questionnaire as research instrument for data collection to study the management and opinions of personnel in private health clubs in 5 dimensions, i.e.

1. The personnel.
2. The place and space.
3. The equipment and facilities.
4. The activities.
5. The finances.

To avoid effects on findings of the management and opinions among the private health clubs and to allow this study maintaining the similar standards, the researcher has used members of the club to determine the size, which contains 3 sizes, i.e. small, medium and large sizes. The small size club contains less space, with few equipment and personnel, while the medium and large sizes contain more space, equipment and personnel. By overview, the private health clubs in Bangkok have been affected the size, which is the factor affecting different management of place, size, and personnel. The activities and equipment necessary for exercises have been similarly provided except differences in numbers. Rationally, large size clubs contain 5 aspects as mentioned in Chapter 2. Even, the small size clubs house fewer personnel and equipment but benefits of all 3 sizes are relatively similar.

Numbers of members in each club used to determine the researcher as has surveyed the size mentioned above. Survey was conducted under 4 factors, i.e. personnel of the club, place and space, equipment and facilities, and activities.

Research methodology of “A STUDY OF PRIVATE HEALTH CLUB MANAGEMENT IN BANGKOK METROPOLITAN” in terms of procedures, research instruments, data collections and analyses are as follows:

Population and Samples

Population

Personnel of the private health clubs in Bangkok are population ranging from managers, assistant managers, and supervisors. Form 77 clubs. Their sizes have been classified into 35 small size clubs, 25 medium size clubs, and 17 large size club. Club personnel are 462 persons.

Samples

A Purposive Sampling is used in this study with 211 managers, assistant managers and supervisors from 77 health club as in Table 1

Table 1 List of Health Clubs, Population and Samples

No.	Health Clubs	Population	Samples			
			Manager	Asst. Mgr.	Supervisor	Total
1	Fitness Center, Novotel Hotel, Bangna	3	1	-	-	1
2	Muscle and Body	6	1	-	2	3
3	Fitness Center , Thai Airways	5	-	1	1	2
4	Fitness Center, Radison Hotel	7	-	1	2	3
5	Maxx Gym, Maxx Hotel	2	1	-	-	1
6	Thanaphom Health & Fitness Club	9	1	1	3	5
7	Grand Sport Fitness Center	5	-	1	2	3
8	Living Fit	9	-	1	3	4
9	Muscle & Heart	10	1	1	4	6
10	Atrium Athletic Club	7	1	-	3	4
11	Fortune Tower Fitness & Spa	5	1	-	1	2
12	Muscle & Mussel	8	1	-	2	3
13	Piyarom Sport Club	21	1	1	8	10
14	Royal Garden Fitness Club	8	1	1	2	4
15	Banyan Tree Fitness Club	5	-	1	1	2
16	Paris Spa, Peninsular Hotel	5	1	-	1	2
17	Always Fit	4	-	1	1	2
18	Fitness Center, Novotel Sukhumvit Hotel	3	1	-	-	1
19	Sports Complex, Rama Garden Hotel	6	1	1	1	3
20	Vibjavadee Health Club, Vibhavadee Hospital	5	1	-	1	2
21	Workout Health & Fitness Club	6	-	1	2	3
22	Yontrakit Sport Club	7	1	1	1	3

Table 1 List of Health Clubs, Population and Samples (Continued)

No.	Health Clubs	Population	Samples			
			Manager	Asst. Mgr.	Supervisor	Total
23	The Olympic Club, Prathumwan Princess Hotel	20	1	1	6	8
24	The Grand Spa & Fitness Club	6	-	1	1	2
25	Fitness Center , Sukhothai Hotel	10	1	1	4	6
26	Fitness Center , JW Marriott Hotel	8	1	1	2	4
27	Club Erawan, Grand Hyatt Erawan Hotel	6	1	-	2	3
28	Mandara Spa, Imperial Queen Park Hotel	5	1	-	1	2
29	Fitness Center ,Dusit Thani Hotel	4	1	-	-	1
30	Fitness Center , Regent Hotel	5	1	1	-	2
31	Health Club, Shangri-La Hotel	7	1	-	2	3
32	Fitness Center, Anoma Hotel	4	-	-	1	1
33	Harmony Health & Beauty	4	-	-	1	1
34	Fitness Center, Miracle Grand Hotel	7	1	1	-	2
35	Fitness Center, Grand Tower Inn Hotel	3	1*	-	1	2
36	Fitness Center, Panthip Court	5	1	-	1	2
37	Merchant Fitness., Merchant Court Hotel	6	-	1	2	3
38	Panya Indra Sport Complex	4	1	-	-	1
39	Fitness Center Conrad Hotel	4	1	-	-	1
40	Clark Hatch , Amari Atrium	6	1	-	1	2
41	Clark Hatch, Century Park Hotel	7	1	-	3	4
42	Clark Hatch, Chaengwattana Sport Club	5	1	-	1	2
43	Clark Hatch, Charn Issara Tower II	6	-	1	2	3
44	Clark Hatch,Thaniya Plaza	6	1	-	2	3
45	Clark Hatch, Sa Mian Naree	6	1	-	1	2
46	Health Club, Holiday Inn Hotel	4	-	-	1	1
47	Royal Health Spa , Intercontinental Hotel	7		1	3	4
48	Health Center , Ambassador Hotel	8	1	1	3	5
49	Fitness Center, Windsor Hotel	5	1	1	-	2
50	Fitness Center Zenith Hotel	3	1	-	-	1
51	Fitness Center , Monarch Lee Garden Hotel	3	-	1	-	1
52	The Empress , Eastin Bangkok Hotel	2	-	1	-	1
53	Fitness Center ,The Emerald Hotel	7	-	1	2	3
54	Fitness Center,Prince Palace Hotel	6	-	1	2	3
55	Health & Fitness,Hilton International Hotel	6	1	1	1	3
56	Fitness Center, Oriental Hotel	6	1	1	-	2
57	Aqua Fitness	8	1	-	4	5
58	Fitness Center Sofitel Hotel	5		1	2	3
59	Fitness Center , Silom Serene Hotel	4		1		1

Table 1 List of Health Clubs, Population and Samples (Continued)

No.	Health Clubs	Population	Samples			Total
			Manager	Asst. Mgr.	Supervisor	
60	Fitness Center , Four Wings Hotel	7	1		2	3
61	Fitness Center The Grand Hotel	5		1	1	2
62	Fitness Center , Imperial Thara Hotel	4			2	2
63	Fitness Center , Tai-pan Hotel	4			1	1
64	Figure Center, Mae Nam Hotel	7		1	2	3
65	Fitness Center , Novotel Siam Center Hotel	7	1	1	2	4
66	Fitness Center , Montian Riverside Hotel	5		1	1	2
67	Fitness Center, Sheraton Orchid, Hotel	5		1	2	3
68	Fitness Center , Thongthara Hotel	7	1	1	2	4
69	Fitness Center ,Sripathum University	10	1	1	4	6
70	Fitness Center , Grand Diamond Hotel	5	1	1	1	3
71	Bangkok Gym & Health Club	4		1	1	2
72	Fitness Center , Bangkok Palace Hotel	3			1	1
73	Fitness Center , Evergreen Laurel Hotel	3			1	1
74	Fitness Center ,Dema-Pavillion Hotel	5		1	1	2
75	Fitness Center , Emporium Suites Hotel	9	1	1	3	5
76	Fitness Center , SC Park Hotel	5		1	1	2
77	Shambhala , Metropolitan Hotel	3			1	1
Total		462	45	44	122	211

Notes: * =front office personnel

Research Instrument

Questionnaire is used as research instrument containing 3 parts as follows:

Part 1: Checklist of the General Information

Part 2: Checklist of the General Information on Health Clubs

Part 3: Rating Scale Open-ended Questionnaire on Opinions

Instrument Formulation

1. Exploring form journals, document, textbooks, theses and related researches on health club.

2. collecting information to be as guides to form questionnaire covering different dimensions as follows:

- 2.1 The personnel
- 2.2 The place and space
- 2.3 The equipment and facilities
- 2.4 The activities, and
- 2.5 The finances

3. Submitting drafted questionnaire to thesis advisor for improvements and forwarded to experts for checking Content Validity and comments. (details in Appendix D)

4. Improving questionnaire under the approval of the thesis advisor.

5. Conducting Try out with 30 health club personnel not relative samples to check Reliability based on Cronbach's alpha coefficient = 0.96.

6. Improving the try-out questionnaire for further actual data collection.

Data Collection

1. The research requests collaboration letter from Office of Graduate School to further contact health clubs.

2. The researcher distributes and collects the questionnaire by herself beginning from February 16, 2004 till March 7 , 2004.

Data Analyses

Data has been rechecked for its validity for further analyses using SPSS for Windows.

1. Part 1 is analyzed by frequency, and percentage for further presentation in Tables and interpretations.

2. Part 2 is analyzed by frequency, and percentage for further presentation in Tables and interpretations.

3. Frequency of each item will be analyzed into means and standard deviations as scoring follows:

Level of Opinion

Least	=	1
little	=	2
Moderate	=	3
Much	=	4
Most	=	5

Means of opinion will be rearranged from least to most respectively, as following criteria, i.e.

0.00 - 1.49	=	Least
1.50 - 2.49	=	little
2.50 - 3.49	=	Moderate
3.50 - 4.49	=	Much
4.50 and above	=	Most

Later Means will be presented with interpretations.

Statistical Applications

The researcher distributes, collects and analyzed data by herself using SPSS for Windows as follows:

1. Part 1 is analyzed by frequency, and percentage of gender, age, education, work experience, salary, and position for further presentation in Tables and interpretations.
2. Part 2 is analyzed by frequency, and percentage according to sizes, i.e. small, medium, and large sizes for further presentation in Tables and interpretations.
3. Part 2, which relates on opinions of personnel, place and space, equipment and facility, activities, and finance will be rechecked by item to find frequency, means (\bar{x}) and standard deviation (SD) by overviews and further present in Tables and interpretations.

CHAPTER IV

RESULTS

This research is to study private health club management in Bangkok. Questionnaire is the instrument used in data collection

Opinion Questions are divided into 3 parts as follows:

Part 1: Checklist of the General Information

Part 2: Checklist of the General Information on Health Clubs

Part 3: Rating scale open-ended questionnaire on opinions on 5 dimension, i.e.

1. The personnel
2. The place and space
3. The equipment and facilities
4. The activities, and
5. The finances

Part 1: Analyses of General Information by frequency, and percentage of demographic variables presented in Table 2

Table 2 Frequency and Percentage of General Information Related to Status of Respondents

General Information		Frequency	Percentage
1. Gender			
	Male	151	71.6
	Female	60	28.4

Table 2 Frequency and Percentage of General Information Related to Status of Respondents (Continued)

General Information		Frequency	Percentage
2. Age			
	Less than 25 years	37	17.7
	26 - 30 years	75	35.9
	31 - 35 years	50	23.9
	36 - 40 years	25	12.0
	41 - 50 years	20	9.6
	More 50 years	2	1.0
3. Position			
	Manager	44	21.1
	Assistant Manager	44	21.1
	Supervisor/Senior instructor	120	57.4
	Others : Front Office manager	1	0.5
4. Salary			
	Less than 10,000 Baht	27	12.9
	10,000 - 15,000 Baht	72	34.4
	15,000 - 20,000 Baht	46	22.0
	20,000 - 30,000 Baht	41	19.6
	30,000 - 40,000 Baht	10	4.8
	More than 40,000 Baht	13	6.2
5. Education			
	Lower than pre bachelor degree	4	1.9
	Pre bachelor – bachelor degree	192	93.2
	Master degree or equivalent	10	4.9
	Doctoral degree or equivalent	-	-
6. Field of Graduation			
	Physical exercise	72	35.1
	Hygiene	2	1.0
	sport Sciences	100	48.8
	Management	9	4.4
	Sports Management	7	3.4
	Marketing	2	1.0
	others : Laws, Public Administration and so on	13	6.3

Table 2 Frequency and Percentage of General Information Related to Status of Respondents (Continued)

General Information	Frequency	Percentage
7. Years of work experience in this health club		
0 - 3 years	125	59.3
4 - 6 years	44	20.8
7 - 9 years	27	12.8
More than 10 years	15	7.1
8. Years of previous experience in other health clubs		
0 year	23	10.9
1 - 3 years	93	44.0
4 - 6 years	41	19.4
7 - 9 years	19	9.0
10 - 13 years	18	8.5
More than 13 years	17	8.0
9. Have you ever worked relating to any health clubs before?		
Yes	181	85.8
No	30	14.2
10. If you have ever worked , what is your position?		
Manager	34	16.1
Assistant Manager	19	9.0
Supervisor/Senior Instructor	34	16.1
Instructor	94	44.6
No experience from other clubs	23	10.9
others	7	3.3
11. Number of members in the health club		
1 - 200 members (small size)	96	45.5
201 - 500 members (medium size)	67	31.8
500 members and above (large size)	48	22.7

From Table 2, it is found that 71.6% are male having the age 26-30 years at 35.9%. the second is 31-35 years or 23.9%. Most are in manager supervisors or instructors or 57.4%. The second are both manager and assistant manager or 21.1% each. Most earn 10,000 – 15,000 Baht or 34.4%,and the second is 15,000 – 20,000 Baht or 22.0% .

Most earn pre-bachelor – bachelor degree or 93.2%, the second is master degree or equivalent or 4.9%. Most are graduated with sport sciences or 48.8%, and second is physical exercise or 35.1%. Also, 59.3% of respondents have work experiences with the existing health club for not more than 3 years, and the second is 4-6 years work experiences or 41.6%.

Before working at the present club, respondents have worked in health club before for 1-3 years or 44.0%, and the second is 4-6 years or 19.4%. Most have prior experiences at 85.8%, and the second is no experience at 10.9%. Most have worked as supervisors /instructor prior to the existing club or 44.6%, and the second is manager and assistant manager or 16.1% each. Most personnel are in the small size club or 45.5%, the second is in the medium size or 31.8% and the least work in the large size health club or 22.7%.

Part 2: Analyses of general information related to health club management, i.e. place and space, areas, position, activities, equipment and facilities, income and expenses

Table 3 Frequency and Percentage of General Information Related to Dimensions of the Health Club Classified by Size

General details	Small		Medium		Large	
	N	%	N	%	N	%
12. Entire spaces for health club						
1 - 500 sq.m.	38	39.6	11	16.4	8	16.7
500 - 1,000 sq.m.	27	28.1	22	32.8	6	12.5
1,000 - 3,000 sq.m.	17	17.7	14	20.9	17	35.4
3,000 - 5,000 sq.m.	3	3.1	7	10.4	5	10.4
5,000 - 10,000 sq.m.	7	7.3	6	9.0	7	14.6
More than 10,000 sq.m.	4	4.2	7	10.4	5	10.4

From Table 3, it is found that

The small size health club houses most 1-500 square meters or 39.6% and the second is 500-1,000 square meters or 28.1%

The medium size health club houses most 500-1,000 square meters or 32.8% and the second is square 1,000-3,000 square meters or 16.4%

The large size health club houses most 1,000-3,000 square meters or 35.4% and the second is square 1-500square meters or 16.7%

Table 4 Frequency and Percentage of Space Dividing in the Health Club
Classified by Size

General details	Small		Medium		Large	
	N	%	N	%	N	%
13. Space Dividing in the Health Club (answerable of more than 1 item)						
Reception counter	86	89.6	63	94.0	44	91.7
Exercise room	93	96.9	67	100.0	47	97.9
Group exercise room	68	70.8	51	76.1	33	68.8
Aerobic bicycle room	24	25.0	15	22.4	15	31.3
Warm-up room	19	19.8	22	32.8	19	39.6
Physical potential test room	17	17.7	11	16.4	20	41.7
Locker room	83	86.5	62	92.5	45	93.8
Steamed room	70	72.9	49	73.1	34	70.8
Sauna room	78	81.3	57	85.1	29	60.4
Swimming pool	72	75.0	55	82.1	25	52.1
Snack and beverage quarter	41	42.7	34	50.7	26	54.2
Leisure room for members	49	51.0	45	67.2	27	56.3
Child attendant room	13	13.5	2	3.0	5	9.5
Massage and spa quarters	43	44.8	36	53.7	17	35.4
Office	47	49.0	45	67.2	26	54.2
Other	12	12.5	2	3.0	12	25.0

It is observed from Table 4 that

The small size health club divides the space from most to least as by 96.9% serves for exercise, 89.6% for reception counter, 86.5% for lockers, 81.3% for sauna room, 75.0% for swimming pool, 72.9% for steamed room, 70.8% for group exercises, and 51.0% for leisure room of members.

The medium size health club divides the space from most to least as by 100% serves for exercise, 94.0% for reception counter, 92.5% for lockers, 85.1% for sauna room, 82.1% for swimming pool, 76.1% for group exercises, 73.1% for steamed room, 67.2% for office, 53.7% for massage and spa, and 50.7% for snacks and beverage area.

The large size health club divides the space from most to least as by 97.9% serves for exercise, 93.8% for lockers, 91.7% for reception counter, 70.8% for steamed room, 68.8% for group exercises, 60.4% for sauna room, 56.3% for leisure room for members, 54.2% for snacks and beverage area. and 52.1%.

Table 5 Frequency and Percentage of Personnel Position of the Health Club
Classified by Size

General details	Small		Medium		Large	
	N	%	N	%	N	%
14. Personnel Position of the Health Club(answerable of more than 1 item)						
Managers	72	75.0	63	94.0	40	83.3
Assistant Managers	35	36.5	34	50.7	32	66.7
Supervisors / Senior	52	54.2	51	76.1	36	75.0
Instructors	92	95.8	64	95.5	45	93.8
Personal Trainers	15	15.6	14	20.9	8	16.7
Exercise Leaders	19	19.8	11	16.4	4	8.3
Receptions	51	53.1	50	74.6	44	91.7
Marketing Officers	10	10.4	17	25.4	17	35.4
Doctors/Nurses	9	9.4	7	10.4	5	10.4
Sports Scientists	3	3.1	4	6.0	5	10.4
Physical Therapist	2	2.1	1	1.5	4	8.3
Housekeepers	51	53.1	45	67.2	36	75.0
Others	15	15.6	9	13.4	13	27.1

It is observed from Table 5 that

The small size health club allocates position of personnel from most to least as by 95.8% for instructors, 75.0% for managers, 54.2% supervisors/senior, and 53.1% for both receptions and housekeepers.

The medium size health club allocates position of personnel from most to least as by 95.5% for instructors, 94.0% for managers, 76.1% for supervisors/senior, 74.6% for receptions, 67.2% housekeepers, and 50.7% for assistant managers.

The large size health club allocates position of personnel from most to least as by 93.8% for instructors, 91.7% for receptions , 83.3% for managers, 75.0% for both supervisors/senior and housekeepers, and 66.7% for assistant managers.

Table 6 Frequency and Percentage of Activities Provided for Members
Classified by Size

General details	Small		Medium		Large	
	N	%	N	%	N	%
15. Activities provided by health club for members . (answerable of more than 1 item)						
Aerobic	80	83.3	65	97.0	40	83.3
Indoor Cycling	15	15.6	6	9.0	12	25.0
Physical Fitness Test	27	28.1	29	43.3	32	66.7
Private exercise	71	74.0	61	91.0	40	83.3
Weight control	51	53.1	52	77.6	36	75.0
Yoga	66	68.8	61	91.0	40	83.3
Swimming instruction	34	35.4	37	55.2	19	39.6
Exercise training for members	14	14.6	14	20.9	19	39.6
Others	14	14.6	8	11.9	8	16.7

It is observed from Table 6 that

The small size health club provides activities from most to least as 83.3% for aerobic, 74.0% for private exercise, 68.8% for yoga, and 53.1% for weight control.

The medium size health club provides activities from most to least as 97.0% for aerobic, 74.0% for private exercise, 77.6% for weight control, and 55.2% for swimming instruction.

The large size health club provides activities from most to least as 83.3% each for aerobic, private exercise and yoga, 75.0% for weight control, and 66.7% for physical fitness test.

Table 7 Frequency and Percentage of Cardiovascular Equipment Provided in the Health Club Classified by Size

General details	Small		Medium		Large	
	N	%	N	%	N	%
16. Cardiovascular Equipment Provided in the Health Club (answerable of more than 1 item)						
Treadmills	94	97.9	65	97.0	48	100.0
Upright Bikes	92	95.8	65	97.0	47	97.9
Recumbent Bikes	49	51.0	40	59.7	36	75.0
Upper Rower	8	8.3	8	11.9	10	20.8
Stepper/Stair Climber	48	50.0	31	46.3	27	56.3
Rower	57	59.4	35	52.2	39	81.3
Elliptical/Cross Trainer	50	52.1	52	77.6	28	58.3
Indoor Cycling	15	15.6	9	13.4	11	22.9
others	5	5.2	8	11.9	6	12.5

It is observed from Table 7 that

The small size health club provides cardiovascular equipment in the health club from most to least as 97.9 % for treadmill, 95.8% for upright bikes, 59.4% for rower, 52.1% for elliptical/cross trainer, 51.0% for recumbent bikes, and 50.0% for steppers/stair climber.

The medium size health club provides cardiovascular equipment in the health club from most to least as 97.0 % each for treadmill and upright bikes, 77.6% for elliptical/cross trainer, 59.7% for recumbent bikes , and 52.2% for rower.

The large size health club provides cardiovascular equipment in the health club from most to least as 100.0 % for treadmill, 97.9% for and upright bikes, 81.3% for rower, 58.3% for elliptical/cross trainer, and 56.3 % for stepper/ stair climber.

Table 8 Frequency and Percentage of Multi-Station Provided in the Health Club Classified by Size

General details	Small		Medium		Large	
	N	%	N	%	N	%
17. Multi-Station Provided in the Health Club (answerable of more than 1 item)						
Two-station	18	18.8	10	14.9	7	14.6
Four-station	21	21.9	12	17.9	9	18.8
Six- station	3	3.1	13	19.4	5	10.4
Others	8	8.3	8	11.9	1	2.1

It is observed from Table 8 that

The small size health club provides multi-station in the health club from most to least as 21.9% for four-station, and 18.8% for two-station.

The medium size health club provides multi-station in the health club from most to least as 19.4% for six-station, and 17.9% for four-station.

The large size health club provides multi-station in the health club from most to least as 18.8% for four-station, and 14.6% for two-station.

Table 9 Frequency and Percentage of Single Station Provided in the Health Club
Classified by Size

General details	Small		Medium		Large	
	N	%	N	%	N	%
18. Single Station Provided in the Health Club (answerable of more than 1 item)						
<u>Leg</u>						
Leg Extension	94	97.9	65	97.0	48	100.0
Prone Leg Curl	70	72.9	54	80.6	39	81.3
Seated Leg Curl	36	37.5	24	35.8	23	47.9
Leg Press	65	67.7	58	86.6	43	89.6
Hip Extension	42	43.8	42	62.7	31	64.6
Hip Adduction	46	47.9	37	55.2	41	85.4
Hip Abduction	41	42.7	30	44.8	43	89.6
Multi Hip	43	44.8	38	56.7	33	68.8
Others	3	3.1	5	7.5	5	10.4
<u>Chest, Torso and Arms</u>						
Chest Press	91	94.8	62	92.5	47	97.9
Incline Press	63	65.6	44	65.7	40	83.3
Shoulder Press/Overhead Press	76	79.2	61	91.0	47	97.9
Pectoral Fly/Butter Fly	65	67.7	55	82.1	43	89.6
Pullover	59	61.5	37	55.2	36	75.0
Lateral Raise	37	38.5	30	44.8	34	70.8
Lat Pulldown	79	82.3	61	91.0	45	93.8
Mid Row	25	26.0	29	43.3	22	45.8
Low Row	30	31.3	24	35.8	26	54.2
Compound Row	23	24.0	16	23.9	21	43.8
Abdominal Crunch	70	72.9	51	76.1	46	95.8
Back Extension/Low Back	56	58.3	47	70.1	41	85.4
Rotary Torso	28	29.2	23	34.3	27	56.3
Cable Crossover	31	32.3	42	62.7	35	72.9
Chin-Dip	32	33.3	38	56.7	37	77.1
Others	6	6.3	8	11.9	4	8.3

It is observed from Table 9 that

The small size health club provides single station in the health club from most to least as 97.9 % for Leg Extension, 94.8% for Chest Press , 82.3% for Lat Pulldown , 79.2% for Shoulder Press, 72.9% each for Abdominal and Prone Leg Curl for , 67.7% each for Leg Press and Pectoral Fly , 65.6% for Incline Press, 61.5% for Pulldown, and 58.3% for Back Extension .

The medium size health club provides single station in the health club from most to least as 97.0% for Leg Extension, 92.5% for Chest Press , 91.0% each for Lat Pulldown and Shoulder Press, 86.6% each for Leg Press, 82.1%for Pectoral Fly, 80.6% for Prone Leg Curl, 76.1% for Abdominal, 70.1% for Back Extension, 65.7% for Incline Press, 62.7% each for Hip Extension and Cable Crossover, 56.7% each for multi Hip and Chin-dip Pullover, and 55.2% each for Abduction and Pulldown.

The large size health club provides single station in the health club from most to least as 100.0% for Leg Extension, 97.9% each for Chest Press and Shoulder Press , 95.8% for Abdominal, 93.8% each for Lat Pulldown, 89.6% each for Leg Press and Pectoral Fly, 85.4% each for Hip Abduction and Back Extension, 83.3% for Incline Press, 65.7% for Incline Press, 81.3% for Prone Leg Curl, 77.1% for Chin-dip, 75.0% for Lat Pulldown, 72.9% for Cable Crossover, 70.8% for Lateral Raise, 68.8% for Multi Hip, 64.6% for Hip Extension, 56.3% for Rotary Torso, and 54.2% for Low Row.

Table 10 Frequency and Percentage of Free Weight Provided in the Health Club
Classified by Size

General details	Small		Medium		Large	
	N	%	N	%	N	%
19. Free Weight Provided in the Health Club (answerable of more than 1 item)						
Dumbbell	93	96.9	64	95.5	44	91.7
Barbell	77	80.2	59	88.1	40	83.3
Flat Bench	80	83.3	60	89.6	45	93.8
Incline Bench	68	70.8	46	68.7	42	87.5
Decline Bench	47	49.0	48	71.6	42	87.5
Adjustable Bench	54	56.3	51	76.1	38	79.2
Olympic Flat Bench	38	39.6	37	55.2	27	56.3
Olympic Incline Bench	27	28.1	16	23.9	25	52.1
Olympic Decline Bench	20	20.8	17	25.4	24	50.0
Olympic Adjustable Bench	32	33.3	26	38.8	21	43.8
Smith Machine	54	56.3	58	86.6	31	64.6
Adjustable Abdominal Board	56	58.3	41	61.2	31	64.6
Others	5	5.2	5	7.5	0	0.0

It is observed from Table 10 that

The small size health club provides free weight in the health club from most to least as 96.9% for Dumbbell, 83.3% for Flat Bench , 80.2% for Barbell, 70.8% for Incline Bench, 58.3% for Adjustable Abdominal Board, and 56.3% each for Adjustable Bench and Smith Machine.

The medium size health club provides free weight in the health club from most to least as 95.5% for Dumbbell , 89.6% for Flat Bench , 88.1% for Barbell, 86.6% for Smith Machine , 76.1% for Adjustable Bench ,71.6 % for Decline Bench, 68.7% for Incline Bench , 61.2% for Adjustable Abdominal Board , and 55.2% for Olympic Flat Bench.

The large size health club provides free weight in the health club from most to least as 93.8% for Flat Bench, 91.7% for Dumbbell) , 87.5%each for Incline Bench and Decline Bench , 83.3% for Barbell , 79.2% for Adjustable Bench , 64.6%

each for Smith Machine and Adjustable Abdominal Board, 56.3% for Olympic Flat Bench , 52.1% for Olympic Incline Bench, and 50.0% for Olympic Decline Bench.

Table 11 Frequency and Percentage of Income in the Health Club Classified by Size

General details	Small		Medium		Large	
	N	%	N	%	N	%
20. Income in the Health Club (answerable of more than 1 item)						
Membership application fees	92	95.8	67	100.0	48	100.0
Fees	19	19.8	22	32.8	20	41.7
Sport activity application fees	14	14.6	21	31.3	10	20.8
Steamed room service	12	12.5	12	17.9	2	4.2
Sauna service	21	21.9	13	19.4	2	4.2
Massage service	48	50.0	37	55.2	16	33.3
Spa service	16	16.7	12	17.9	3	6.3
Private exercise instruction	6	6.3	5	7.5	3	6.3
Training fees	2	2.1	4	6.0	3	6.3
Snacks and beverage sold	40	41.7	38	56.7	25	52.1
Souvenir sold	22	22.9	10	14.9	11	22.9
Others	5	5.2	5	7.5	5	10.4

It is observed from Table 11 that

The small size health club provides income in the health club from most to least as 95.8% from membership application fees, and 50.0% from massage service.

The medium size health club provides income in the health club from most to least as 100.0% from membership application fees, 56.7% from Snacks and beverage sold and 55.2% for massage service.

The large size health club provides income in the health club from most to least as 100.0% from membership application fees, and 52.1% from Snacks and beverage sold.

Table 12 Frequency and Percentage of Expenses in the Health Club Classified by Size

General details	Small		Medium		Large	
	N	%	N	%	N	%
21. Expenses in the Health Club (answerable of more than 1 item)						
Personnel salary	95	99.0	65	97.0	48	100.0
Personnel welfare	53	55.2	46	68.7	27	56.3
Compensation for aerobic leaders	35	36.5	48	71.6	19	39.6
Compensation for instructors	19	19.8	18	26.9	12	25.0
Rent	21	21.9	23	34.3	22	45.8
Water supplies	72	75.0	54	80.6	41	85.4
Electricity	77	80.2	59	88.1	42	87.5
Telephone	77	80.2	61	91.0	39	81.3
Office materials	48	50.0	46	68.7	27	56.3
Equipment maintenance	37	38.5	53	79.1	35	72.9
Health club maintenance	25	26.0	44	65.7	28	58.3
Laundry	57	59.4	55	82.1	31	64.6
Newspapers	65	67.7	59	88.1	34	70.8
Cost of snacks and beverage	41	42.7	35	52.2	20	41.7
Cost of wastage	27	28.1	35	52.2	17	35.4
Advertisement and public relations	33	34.4	38	56.7	30	62.5
Marketing activities	14	14.6	24	35.8	20	41.7
Others	3	3.1	8	11.9	1	2.1

It is observed from Table 12 that

The small size health club provides income in the health club from most to least as 99.0% for personnel salary, 80.2% for electricity and telephone, 75.0% for water supplies, 67.7% for news papers, 59.4% for laundry, 55.2% for personnel welfare, and 50.0% for office materials.

The medium size health club provides income in the health club from most to least as 97.0% for personnel salary, 91.0% for telephone, 88.1% for electricity and newspapers, 82.1% for laundry, 80.6% for water supplies, 79.1% for equipment maintenance, 71.6% for compensations of aerobic leaders, 68.7% each for personnel

welfare and office materials, 65.7% for health club maintenance, 56.7% for advertisement and public relation, and 52.2% for the cost of snacks and beverage.

The large size health club provides income in the health club from most to least as 100.0% for personnel salary, 87.5% for electricity, 85.4% each for water supplies, and telephone, 72.9% for equipment maintenance, 70.8% for newspapers, 64.6% for laundry, 62.5% for advertisement and public relations, 58.3% for health club maintenance, and 56.3% for office materials.

**Part 3: Opinions of the Managers, Assistant Managers, and Supervisor
Senior related to 5 dimensions by rating scale.**

Table 13 Means, and SD of Health Club Personnel's Opinions in the Management of 5 Dimensions: Personnel, Place and space, Equipment and Facilities, Activities, and Finances

General Details	Small		Medium		Large	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
1. The personnel	3.95	0.14	4.02	0.29	4.13	0.21
2. The place and space	3.42	0.17	3.99	0.22	4.00	0.28
3. The equipment and facilities	4.07	0.19	4.21	0.26	4.09	0.22
4. The activities	3.61	0.15	3.71	0.21	3.57	0.12
5. The finances	3.24	0.14	3.24	0.21	3.17	0.22
Total	3.84	0.18	3.93	0.25	3.89	0.23

From Table 13, it is found that personnel have high level of opinions. Classified by health club size, they have opinions about each dimension of the club as follows:

The small size health club has high opinion respectively by each dimension on equipment and facilities ($\bar{x} = 4.07$, SD = 0.19), personnel ($\bar{x} = 3.95$, SD = 0.14), and activities ($\bar{x} = 3.61$, SD = 0.15), exempted the place and space ($\bar{x} = 3.42$, SD = 0.17), and finances ($\bar{x} = 3.24$, SD = 0.14), which are moderate

The medium size health club has high opinion respectively by each dimension on equipment and facilities ($\bar{x} = 4.21$, SD = 0.26), personnel($\bar{x} = 4.02$, SD = 0.29), place and space ($\bar{x} = 3.99$, SD = 0.22), and activities($\bar{x} = 3.71$, SD = 0.17), exempted finances ($\bar{x} = 3.24$, SD = 0.21), which is moderate.

The large size health club has high opinion respectively by each dimension on personnel($\bar{x} = 4.13$, SD = 0.21), equipment and facilities ($\bar{x} = 4.09$, SD = 0.22), place and space ($\bar{x} = 4.00$, SD = 0.28), activities($\bar{x} = 3.57$, SD = 0.12), exempted the finances ($\bar{x} = 3.17$, SD = 0.22), which is moderate.

Table 14 Means, and SD of Health Club Personnel's Opinions in the Management of Personnel

General Details	Small		Medium		Large	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
1. Appoint manager of the health club	4.29	1.02	4.52	0.77	4.48	0.95
2. The manager should have prior work experience of health club	4.45	0.84	4.49	0.70	4.67	0.56
3. The manger should have managerial skills of health club	4.56	0.87	4.39	0.72	4.52	0.62
4. The manger should be graduated in administration/sport management.	4.18	0.81	4.15	0.78	4.27	0.82
5. The manager should have been trained on administration/ sport management.	4.23	0.80	4.16	0.75	4.50	0.97
6. Appoint assistant manager position	3.73	0.96	3.94	0.85	4.31	0.66
7. Appoint supervisors/ senior	4.12	0.86	4.13	0.72	4.38	0.79
8. Appoint instructors	4.42	0.72	4.51	0.61	4.54	0.68
9. Instructor should be able plan exercise and training programs for members	4.49	0.73	4.58	0.61	4.75	0.48
10. Instructors should have been trained on exercises	4.48	0.68	4.54	0.66	4.60	0.54
11. Instructors should be able to lead aerobic	4.14	0.93	4.02	0.77	4.15	0.83
12. Appoint receptionists	3.51	1.06	3.87	0.92	4.10	0.75
13. Appoint marketing personnel	3.47	1.10	3.57	1.28	3.81	1.05
14. Appoint different aerobic leaders	4.07	0.81	4.28	0.97	4.13	0.82
15. Aerobic leaders should be hired as Part Time	3.38	1.01	3.34	0.98	3.10	0.91
16. Appoint physician to the health club	3.13	1.14	3.09	1.51	2.94	1.14
17. Appoint sport scientists	3.24	1.01	3.39	1.62	3.44	1.11
18. Hire housekeepers	4.16	0.96	4.24	0.87	4.44	0.89
19. Hire security guards	3.09	1.16	3.09	1.15	3.42	1.22
Total	3.95	0.14	4.02	0.29	4.13	0.21

From Table 14, it shows that most personnel of health club have high level of opinion related to personnel. Classified by health club size, they have opinions about dimension of the personnel as follows:

The small size health club has likely high level of opinion about personnel ($\bar{x} = 3.95$, $SD = 0.14$). Examined by item, it is found that manager should have

strongest knowledge of management on health club ($\bar{x} = 4.56$, $SD = 0.87$), excluded having the marketing personnel. ($\bar{x} = 3.47$, $SD = 1.10$). The leader of aerobic should be part-time. ($\bar{x} = 3.38$, $SD = 1.01$). There should be sport scientists. ($\bar{x} = 3.24$, $SD = 1.01$), full time physician in the health club. ($\bar{x} = 3.13$, $SD = 1.14$), and security guards. ($\bar{x} = 3.09$, $SD = 1.16$), which are in moderate levels.

The medium size health club has likely high level of opinion about personnel ($\bar{x} = 4.02$, $SD = 0.29$). Examined by item, it is found that instructors should be best able to organize training programs for members ($\bar{x} = 4.58$, $SD = 0.61$). Instructors should have been trained in exercises ($\bar{x} = 4.54$, $SD = 0.66$), having manager position ($\bar{x} = 4.52$, $SD = 0.77$), having instructors most ($\bar{x} = 4.51$, $SD = 0.61$), exempted having sport scientists ($\bar{x} = 3.39$, $SD = 1.62$), leader of aerobic should be part-time ($\bar{x} = 3.34$, $SD = 0.98$), having full time physician in the health club. ($\bar{x} = 3.09$, $SD = 1.51$) and security guards ($\bar{x} = 3.09$, $SD = 1.15$), which are in moderate levels.

The large size health club has likely high level of opinion about personnel Examined by item, it is found that instructors should be best able to organize training programs for members ($\bar{x} = 4.75$, $SD = 0.48$). The manager should have prior work experience of health club ($\bar{x} = 4.67$, $SD = 0.56$). Instructors should have been trained in exercises ($\bar{x} = 4.60$, $SD = 0.54$). The club needs instructors ($\bar{x} = 4.54$, $SD = 0.68$). The manager should have sound knowledge of health club management ($\bar{x} = 4.52$, $SD = 0.62$). The manager should have been best trained on sports management ($\bar{x} = 4.50$, $SD = 0.97$), exempted having sport scientists and security guards ($\bar{x} = 3.44$, $SD = 1.11$), leader of aerobic should be part-time ($\bar{x} = 3.10$, $SD = 0.91$), and having full time physician in the health club ($\bar{x} = 2.94$, $SD = 1.14$), which are in moderate level.

Table 15 Means, and SD of Health Club Personnel's Opinions in the Management of Place and space.

General Details	Small		Medium		Large	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
1. Located in community	4.32	0.84	4.24	0.65	4.44	0.68
2. Adequate lights	4.53	0.63	4.47	0.70	4.71	0.46
3. Well segmented space	4.48	0.62	4.51	0.61	4.52	0.58
4. furnished with reception/PR counter	4.19	0.77	4.42	0.66	4.44	0.65
5. Furnished with physical fitness room	3.73	0.99	3.64	1.04	4.29	1.20
6. Furnished with first-aids room	3.56	1.03	3.55	1.08	3.73	1.07
7. Furnished with Cardiovascular exercise room	4.22	0.91	4.27	0.77	4.31	0.72
8. Furnished with weight room	4.41	0.90	4.42	0.68	4.44	0.58
9. Furnished with Aerobic Room	4.21	0.92	4.42	0.84	4.37	0.82
10. Furnished with Indoor Cycling Room	3.53	1.00	3.49	1.29	3.53	1.33
11. Furnished with Steam Room	4.07	0.92	4.16	1.09	3.83	0.97
12. Furnished with Sauna Room	4.13	0.86	4.22	1.03	3.89	1.28
13. Furnished with Locker Room	4.37	0.83	4.54	0.77	4.58	0.71
14. Furnished with dressing room	4.12	0.95	4.37	0.81	4.46	0.82
15. Furnished with bathrooms	4.37	0.78	4.54	0.76	4.60	0.57
16. Furnished with toilets	4.41	0.98	4.52	0.70	4.62	0.76
17. Furnished with leisure room	3.89	0.93	4.06	1.08	4.00	0.94
18. Furnished with snack and beverage corner for members	3.34	1.07	3.48	1.12	3.69	1.17
19. Furnished with child attendants	2.62	1.12	2.66	1.33	2.71	1.56
20. Furnished with office	3.50	1.17	3.76	1.03	3.67	0.99
21. Furnished with audio-visual room	3.52	1.11	3.40	0.97	3.65	1.04
22. Furnished with souvenir corner e.g. shirt, pants etc.	2.96	1.29	3.00	1.10	3.08	1.11
23. Furnished with massage room	3.69	1.16	3.69	1.28	3.42	1.13
24. Furnished with spa- room	3.49	1.19	3.61	1.07	2.98	1.06
25. furnished with swimming pool	4.32	1.01	4.43	0.84	4.04	1.25
Total	3.92	0.17	4.00	0.22	4.00	0.28

From Table 15, it shows that most personnel of health club have high level of opinion related to place and space. Classified by health club size, they have opinions about dimension of space as follows:

The small size health club has likely high level of opinion about place and space ($\bar{x} = 3.92, SD = 0.17$). Examined by item, it is found that the place and space needed most is the adequate lights ($\bar{x} = 4.53, SD = 0.63$), except the souvenir corner such as pants ($\bar{x} = 2.96, SD = 1.29$), which is at moderate level.

The medium size health club has likely high level of opinion about place and space ($\bar{x} = 4.00, SD = 0.22$). Examined by item, it is found that the place and space needed most are locker rooms ($\bar{x} = 4.54, SD = 0.77$), bathrooms ($\bar{x} = 4.54, SD = 0.76$), toilets ($\bar{x} = 4.52, SD = 0.70$), and well segmented place and space ($\bar{x} = 4.51, SD = 0.61$), exempted rooms for aerobic bikes ($\bar{x} = 3.49, SD = 1.29$), snacks and beverage corner ($\bar{x} = 3.48, SD = 1.12$), audiovisual for members ($\bar{x} = 3.40, SD = 0.97$), souvenir corner e.g, shirts and pants ($\bar{x} = 3.00, SD = 1.10$), and child attendant room ($\bar{x} = 2.66, SD = 1.33$), which are at moderate level.

The large size health club has likely high level of opinion about place and space ($\bar{x} = 4.00, SD = 0.28$). Examined by item, it is found that the place and space needed most are adequate lights ($\bar{x} = 4.71, SD = 0.46$), toilets ($\bar{x} = 4.62, SD = 0.76$), bathrooms ($\bar{x} = 4.60, SD = 0.57$), locker rooms ($\bar{x} = 4.58, SD = 0.71$), well segmented place and space ($\bar{x} = 4.52, SD = 0.58$), exempted the massage rooms ($\bar{x} = 3.42, SD = 1.13$), souvenir corner, e.g. shirt and pants ($\bar{x} = 3.08, SD = 1.11$), spa service ($\bar{x} = 2.98, SD = 1.06$), and child attendant room ($\bar{x} = 2.71, SD = 1.56$), which are at moderate level.

Table 16 Means, and SD of Health Club Personnel's Opinions in the Management of Equipment and Facilities

General Details	Small		Medium		Large	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
1. Cardiovascular						
1.1 Treadmill	4.54	0.84	4.70	0.63	4.64	0.63
1.2 Upright Bike	4.28	0.93	4.42	0.78	4.37	0.70
1.3 Recumbent Bike	3.85	1.11	4.24	1.05	4.04	0.92
1.4 Upper Rower	3.47	1.19	3.51	1.55	3.42	1.18
1.5 Stepper/Stair Climber	3.60	1.23	3.64	1.16	3.69	1.20
1.6 Rower	3.67	1.05	3.70	1.23	3.52	1.09
1.7 Elliptical	3.91	1.23	4.24	0.96	3.97	1.06
2. Multi-Station	3.70	1.31	3.63	1.31	3.21	1.25
3. Single station	4.24	0.87	4.40	0.85	4.23	0.86
4. Furnished with equipment for Multi-Station and Single station	3.83	1.21	3.89	1.06	3.79	1.18
5. Furnished with equipment for Free Weight)	4.33	0.88	4.55	0.68	4.50	0.65
6. Furnished with equipment for physical fitness test	3.78	1.07	3.97	1.15	4.10	0.97
7. Prepare handkerchief for members	4.33	0.83	4.66	0.68	4.54	0.77
8. Prepare towels for members	4.44	0.71	4.66	0.68	4.60	0.64
9. Bathing amenities, shampoo, cream, soap	4.32	0.90	4.42	0.78	4.42	0.68
10. Dressing amenities, e. comb, powder, hair-dryer, cotton bud	4.33	0.87	4.34	0.86	4.14	0.99
11. Service phone	3.51	1.18	3.53	1.21	3.14	1.25
12. Service lockers	4.44	0.75	4.55	0.76	4.56	0.80
13. 1:4 lockers provided	4.22	0.94	4.52	0.70	4.189	1.23
14. Drinking water service	4.53	0.66	4.67	0.59	4.77	0.93
15. Install many phone point service	3.93	1.14	3.94	1.04	3.75	1.04
16. Adequate air-conditioning	4.42	0.73	4.70	0.55	4.52	0.74
17. Furnished with adequate equipment	4.03	0.86	3.91	1.01	3.96	1.07
Total	4.07	0.19	4.21	0.26	4.09	0.22

From Table 16, it shows that most personnel of health club have high level of opinion related to equipment and facilities. Classified by health club size, they have opinions about dimension of equipment and facilities as follows:

The small size health club has likely high level of opinion related to equipment and facilities ($\bar{x} = 4.07, SD = 0.19$). Examined by item, it is found that the equipment and facilities needed most are the Cardiovascular ($\bar{x} = 4.54, SD = 0.84$), and drinking machine ($\bar{x} = 4.53, SD = 0.66$), except the upper rower ($\bar{x} = 3.47, SD = 1.19$), which is at moderate level.

The medium size health club has likely high level of opinion related to equipment and facilities ($\bar{x} = 4.21, SD = 0.26$), except the Cardiovascular ($\bar{x} = 4.70, SD = 0.63$), treadmill and air-conditioned rooms ($\bar{x} = 4.70, SD = 0.55$), drinking water machine ($\bar{x} = 4.67, SD = 0.59$), handkerchiefs, and towel ($\bar{x} = 4.66, SD = 0.68$), free weight ($\bar{x} = 4.55, SD = 0.68$) and lockers ($\bar{x} = 4.55, SD = 0.76$), which are at moderate level.

The large size health club has likely high level of opinion related to equipment and facilities ($\bar{x} = 4.09, SD = 0.22$). Examined by item, it is found that the equipment and facilities needed most are drinking water machine ($\bar{x} = 4.77, SD = 0.93$), the Cardiovascular ($\bar{x} = 4.64, SD = 0.63$), towels ($\bar{x} = 4.60, SD = 0.64$), lockers ($\bar{x} = 4.56, SD = 0.80$), handkerchiefs ($\bar{x} = 4.54, SD = 0.77$), prevailing air-conditioned health club ($\bar{x} = 4.52, SD = 0.74$), and free weight ($\bar{x} = 4.50, SD = 0.65$), exempted the upper rower ($\bar{x} = 3.42, SD = 1.18$), multi-station ($\bar{x} = 3.21, SD = 1.25$), and telephone booths ($\bar{x} = 3.14, SD = 1.25$) ($\bar{x} = 3.14, SD = 1.25$), which are at moderate level.

Table 17 Means, and SD of Health Club Personnel's Opinions in the Management of Activities

General Details	Small		Medium		Large	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
1. Organize private program	4.16	0.84	4.22	0.79	4.02	0.84
2. Organize weight control program	3.95	0.93	4.10	0.72	4.04	0.80
3. Physical fitness test program	3.82	1.05	3.85	0.87	4.10	0.93
4. Different aerobics, e.g. body-jam, step aerobic, high compact, low compact, etc	4.06	0.94	4.36	0.83	4.16	0.88
5. Aerobic biking	3.31	1.16	3.46	1.09	3.42	1.16
6. Yoga	4.05	1.04	4.21	0.83	3.94	0.95
7. Ballroom dance	2.92	1.23	2.91	1.05	2.62	1.04
8. Swimming	3.56	1.32	3.59	1.40	2.96	1.07
9. Exercise training	3.60	1.16	3.48	1.03	3.64	1.06
10. Team competition	3.00	1.22	3.22	1.16	3.02	1.06
11. Identical exercise competition e.g. cumulative Distance, rower, etc.	3.23	1.16	3.43	1.21	3.31	1.15
Total	3.61	0.15	3.71	0.21	3.57	0.12

From Table 17, it shows that most personnel of health club have high level of opinion related to activities. Classified by health club size, they have opinions about dimension of equipment and facilities as follows:

The small size health club has likely high level of opinion related to activities ($\bar{X} = 3.61, SD = 0.15$) except the aerobic bike ($\bar{X} = 3.31, SD = 1.16$), identical exercise competition e.g. cumulative distance running, rower, etc. which is at moderate level. ($\bar{X} = 3.23, SD = 1.16$), team competition ($\bar{X} = 3.00, SD = 1.22$ and ballroom dance ($\bar{X} = 2.92, SD = 1.23$), which are at moderate level.

The medium size health club has likely high level of opinion related to activities ($\bar{X} = 3.71, SD = 0.21$), except the exercise training ($\bar{X} = 3.48, SD = 1.03$), aerobic bike training ($\bar{X} = 3.46, SD = 1.09$), identical exercise competition e.g.

cumulative distance running, rower, etc. ($\bar{x} = 3.43$, $SD = 1.21$), ($\bar{x} = 3.22$, $SD = 1.16$), and ballroom dance ($\bar{x} = 2.91$, $SD = 1.05$), which are at moderate level.

The large size health club has likely high level of opinion related to activities ($\bar{x} = 3.57$, $SD = 0.12$), except the aerobic bike training ($\bar{x} = 3.42$, $SD = 1.16$), identical exercise competition e.g. cumulative distance running, rower, etc. ($\bar{x} = 3.31$, $SD = 1.15$) team competition ($\bar{x} = 3.02$, $SD = 1.06$), instruction of swimming ($\bar{x} = 2.96$, $SD = 1.07$), and ballroom dance ($\bar{x} = 2.92$, $SD = 1.23$), which are at moderate level.

Table 18 Means, and SD of Health Club Personnel's Opinions in the Management of Finances

General Details	Small		Medium		Large	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
1. Sport training to raise income	3.30	1.26	3.27	1.04	2.83	1.19
2. Sport competition to raise income from applications	2.89	1.15	2.52	1.05	2.37	1.02
3. Charges for private training	2.93	1.32	2.94	1.50	2.79	1.15
4. Sponsor charge in publication of health club	2.49	1.05	2.64	1.14	2.69	1.17
5. Sponsor charge in banners inside the club	2.49	1.15	2.61	1.11	2.73	1.09
6. Hiring fees of equipment	2.74	1.15	2.74	1.23	2.71	1.15
7. Souvenir sold	2.83	1.21	2.88	1.14	2.75	1.08
8. Lumpsum pay for membership till date of expiry	4.021	1.00	4.25	0.99	4.06	1.15
9. Matriculation fees and monthly service fees	2.83	1.18	2.82	1.21	2.85	1.34
10. Daily update accounting	4.21	1.07	4.34	0.83	4.27	1.03
11. Receipt for every payment	4.56	0.79	4.56	0.72	4.75	0.48
Total	3.24	0.14	3.24	0.21	3.17	0.22

From Table 18, it shows that most personnel of health club have moderate level of opinion related to finances. Classified by health club size, they have opinions about dimension of equipment and facilities as follows:

The small size health club has likely moderate level of opinion related to finances ($\bar{x} = 3.24$, $SD = 0.14$). Examined by item, it is found high level of opinion related to issuing receipt for every payment ($\bar{x} = 4.56$, $SD = 0.79$), lumpsum pay for membership till date of expiry ($\bar{x} = 4.02$, $SD = 1.00$), daily update accounting ($\bar{x} = 4.21$, $SD = 1.07$) except the sponsor charge in publication of health club ($\bar{x} = 2.49$, $SD = 1.15$), which are at low level.

The medium size health club has likely moderate level of opinion related to finances ($\bar{x} = 3.24$, $SD = 0.21$). Examined by item, it is found high level of opinion related to issuing receipt for every payment ($\bar{x} = 4.56$, $SD = 0.72$), daily

update accounting ($\bar{x} = 4.34, SD = 0.83$), and lumpsum pay for membership till date of expiry ($\bar{x} = 4.25, SD = 0.99$).

The large size health club has likely moderate level of opinion related to finances ($\bar{x} = 3.17, SD = 0.22$). Examined by item, it is found high level of opinion related to issuing receipt for every payment ($\bar{x} = 4.75, SD = 0.48$), daily update accounting ($\bar{x} = 4.27, SD = 1.03$) and lumpsum pay for membership till date of expiry ($\bar{x} = 4.06, SD = 1.15$), except to organize sport competition to raise income from application fees ($\bar{x} = 2.37, SD = 1.02$), which are in low level.

CHAPTER V

DISCUSSION

A study of A STUDY OF PRIVATE HEALTH CLUB MANAGEMENT IN BANGKOK METROPOLITAN has been employing questionnaire for data collection and its results are discussed as follows:

1. General Information of Health Club Classified by Size

1.1 Space

It is found that the small size clubs accommodate 1-500sq.m, the medium size clubs are 500-1,000sq.m, and the large size clubs are 1,000-3,000 sq.m. It is readjustable to appropriateness but likely meet the needs of members. It is corresponded with the American College of Sports Medicine or ACSM (1992) commenting that health club should divide space into three (3) parts, i.e. Nonactivity Areas, Program Activity Areas, and Specialty Areas 40-50 square feet should each be provided for physical exercise. Meaning, the club should adequately provide space for members.

1.2 Segmenting the Health Club

It is found that all three sizes of the club are furnished with reception counter, locker rooms, group exercise room, sauna room, steam room, leisure room for members or diversified activities. It is corresponded with William et al (1997) comment that a successful health club should prioritize internal spaces. It is also corresponded with the survey of International Health, Racquet & Sports Club Association or IHRSA (1994) that it should contain locker room, bathrooms, weight room, court for racket activities, and swimming pool.

1.3 Positions of personnel

It is found that all three sizes of health clubs similarly allocate positions of manager, assistant manager, supervisor, instructor, and receptionist. What differences are number of personnel, which depends on size and number of members to provide service. Therefore, adequate personnel should be allocated to meet the needs of members. It is corresponded with William et al (1997) that personnel of health club in terms of commerce should be furnished with manger, supervisor, instructor, market planner, trainer, and public relation. It is also corresponded with Rattanaorn Tantakanjanaphan (1987), who finds that the suppression police of Samyod require most personnel furnished with capable personnel to advise physical exercise. It is also corresponded with Weerawat Panyaboopatha (1994) that male and female members of health club in Bangkok highly expect the personnel management.

1.4 Activities Provided for Members

It is found that all three sizes of health clubs provide aerobic, private physical exercise programs, and yoga. It is corresponded with Padoongsit Samart (1996) that needs of physical exercise of police are physical exercise management and activities. It is also corresponded with William et al (1997) that management for commerce of the health clubs are for profit. They should provide training programs for each individual or called “personal Training” to increase service and to maintain members.

1.5 Cardiovascular Equipment

It is found that all three sizes of health clubs provide treadmill, upright bikes, elliptical, rower, incumbent bikes and steppers as major equipment for members. Numbers of equipment each club are different but to meet the numbers of members. It is corresponded with the survey of International Health, Racquet & Sports Club Association or IHRSA (1994) that cardiovascular equipment installed in each club are steppers, incumbent bikes, computerized bikes, non-computerized bikes, training bikes, treadmill and rower.

1.6 Multi-Station Equipment

It is found that all three sizes of health clubs provide mostly 4-station. However, they all emphasize single station. It is corresponded with the survey of International Health, Racquet & Sports Club Association or IHRSA (1994) that there are 27 equipment to serve 88 members a station a day. It can well separate weighing each part of the body. Member can rotate to use the station with considerable space. Some club had lesser space, they therefore provide multi station to save the space.

1.7 Single Station Equipment

It is found that all three sizes of health clubs provide single station equipment, e.g. Leg Extension, Chest Press, Shoulder Press, Prone Leg Curl, and Abdominal, which are for both upper and lower parts. It is corresponded with Jaroen Krabuonrat (1988) that good physical exercise should allow all parts of the body benefit rather than only some parts. It is also corresponded with Theeranant Kaenjanhorm (1996) that the physical exercise taken should between weight and cardiovascular exercises or by alternative.

1.8 Free Weight Equipment

It is found that all three sizes of health clubs provide dumbbell, barbell, and dumbbell benches to gain free weight. However, they need instructors during exercises. It is corresponded with Theeranant Kaenjanhorm (1996) that free weight can diversely exercise in all directions but weakness is safety and movement control.

1.9 Income

It is found that all three sizes of health clubs mostly gain income from membership fees, snacks and beverage rather than from others on account of they emphasize lumpsum pays and gain privilege to use all equipment so as to maintain membership. It is corresponded with Thippakorn Rangkhasiri (1984) that the marketing strategy applied are sales promotion, diversified services, service development, market share, differentiation or spiritual values of service.

1.10 Expenses

It is found that all three sizes of health clubs monthly spend on salary, telephone, electricity, water supplies, and equipment maintenance. Therefore, the clubs need fund in each month to meet expenses for its sustentation. Some promotion should be organized to gain income adequately to meet expenses and survival. It is corresponded with Thippakorn Rangkhasiri (1984) that there should be collaboration among health clubs or equipment suppliers, and manufacturers to develop quality of attractive services to increase sales volumes by selling service card as gift-vouchers. Deduction of price should be offered during low season with limited time of uses during the sales promotion.

2. Opinions of Private Health Club Management

Five dimensions are examined, i.e. personnel, space, equipment and facility, activities, and finance.

2.1 Personnel

It is found that all three sizes of health clubs have high level of opinions. Examined in each item, it mostly finds that the managers should be well equipped in the health club management, instructors should be viable organize physical exercise for member and have been well trained before. The manager should have work experience priori. It is corresponded with Rattanaporn Tantakanjanaphan (1987) that police need most specialists to advise the physical exercise. It is also corresponded with Nakhon Boonkong (2002) that students and personnel in Siam University needs services of physical exercise, academics, and service providers. Health clubs should therefore adequately allocate personnel to meet the needs of members.

All three sizes of health clubs have moderate opinions on marketing personnel, sport scientists, security guards, and physician of the health club. Rationally, all personnel are viable for these positions. For example, the instructors can be sport scientist and leader of aerobic rather than using part time personnel. IT proves that the personnel management is well equipped with academics lucrative for

work. It is also corresponded with Weerawat Panyaboorapha (1994) that male and female members of health club highly expect the personnel management.

2.2 Place and Space

It is found that all three sizes of health clubs have high level of opinions. Examined in each item, it mostly finds that the club needs adequate lights, segmentations, locker rooms, bathrooms, and toilets. The management of all three sizes of health clubs is depended on their spaces whether they could be segmented. Non activated space would therefore be immobile. However, some large size health clubs in five star hotels or likely renowned have provides souvenir corners to indirectly publicize the clubs.

Therefore, segmentations of the clubs should meet the needs of members. It is corresponded with the study of Sayan Kutakarn (1995) that needs of place, equipment and facilities at Sports Authority of Thailand should be rational to members needing adequate leisure and physical exercise, beautiful and shady, hygienic, and adequate bathrooms. It requires cleanliness particularly bathrooms and furnished with bathrooms, toilet and dressing rooms appropriate to the number of members. It is also corresponded with Jaroen Krabounrat et al (1982) that civil servants and students of universities should be adequately provided with places and spaces of physical exercise. It is also corresponded with Nippon Tassayanai (1978) that the most critical problem allowing students reject physical exercise studies are in adequate and unstandards of place, equipment and facilities.

2.3 Equipment and Facilities

It is found that all three sizes of health clubs have high level of opinions. Examined in each item, it mostly finds that the clubs provide treadmill, free weight, handkerchiefs, towels, lockers, drinking water machine, and prevailing air-conditioned rooms for members.

All three sizes of health clubs have provided different numbers of equipment to fit the size of the club in order to meet the needs of members. It is also corresponded with Jaroen Krabounrat and Supit Samahito (referred in Sayan Kutakarn: 49) that exercise activities will not be achieved if there were inadequate

equipment, place, facilities, and diversified exercise activities provided for members so as to allow them gaining full benefit. It is also corresponded with Petcharat Hiranchart (1986) that personnel of private organizations in Bangkok need services of space, equipment and facility regarding adequate and hygienic dressing room, and cleaning their bodies and exercising spaces should be proportionately segmented e.g. basketball court or badminton court.

2.4 Activities

It is found that all three sizes of health clubs have high level of opinions. Examined in each item, it mostly finds that the clubs provide personal exercise programs, different types of aerobic. Activities among all size of the clubs are similar only differences in frequencies and recurrences of arrangement in a week. The more the number of members, the more activities would be recurrently organized, particularly aerobic. In large size clubs recurrences will likely be more than the small and medium size ones. Meaning, there are the arrangements of the physical fitness test to assess the aim of exercise in each member. Its intention is to motivate members to take an exercise more, more frequent and the validation of membership would be also extended. Activities should therefore be adequate to meet the needs of members. Additions or reductions of activities are viable to appropriateness. It is corresponded with Petcharat Hiranchart (1986) that that personnel of private organizations in Bangkok need services of exercises to enhance health and capacity in relation to the physical fitness test and the activities are swimming, badminton, and martial arts. It is also corresponded with the study of Padoongsit Samart (1996) that the needs of exercise among police are high in every item with respective order, i.e. patterns of activities organized, physical fitness test, and physical exercises. Therefore, the health clubs should diversely organize the exercises to meet most the needs of members. It is corresponded with Weerawat Panyaboopatha (1994) that male and female members highly expect exercise activities on running, and swimming.

2.5 Finances

It is found that all three sizes of health clubs have moderate level of opinions. Examined in each item, it is found that they moderately manage the finances

except the issuance of receipt in every payment, lumpsum pay for membership fees till expiry, and daily update the account of the health club, where opinions are at high level.

They issue receipts as evidence for daily accounting balance where the accountant would be the key duty of the manager. Apart from collecting money, the receptionists issue receipts for members. Other management's moderate on account of there is difference in styles of raising incomes in each club, and this activity relates to marketing. It is corresponded with the study of Thippakorn Rangkhasiri (1983) relating the marketing of health clubs in Bangkok, which often found their strategies of sales promotion, diversified services, differentiation or spiritual values, with market price, and target group. Finding customers are by advertising, publicity, demonstration, knowledge dissemination and building attraction by the collaboration among health clubs or suppliers, distributors and manufacturers. They are therefore viable to manage finance by cooperating with sports companies or representatives for supports or advertising goods within the clubs in order to better raise the income for the health clubs.

CHAPTER VI

CONCLUSION

A study of A STUDY OF PRIVATE HEALTH CLUB MANAGEMENT IN BANGKOK METROPOLITAN has been conducted with 211 managers, assistant managers, supervisors and instructors of private health clubs within Bangkok.

The questionnaire as research instrument has been divided into 3 parts, i.e. Part 1 involves with general information, which question about age, gender, education, work experience, monthly income. Part 2 involves details of the health clubs, which are the number of members, equipment of cardiovascular, free weight, space, personnel, income and expense of the clubs. Part 3 involves the opinions on the management of personnel, space, equipment and facility, activities, and finance.

Conclusions

1. General Information of Respondents

It is found that most respondents are 71.6% male. 35.9% are 26-30 years. 57.4% are supervisors with income of 10,000 – 15,000 Baht a month. 93.2% earn pre-bachelor degree – bachelor degree. 48.8% are graduated in sport sciences and 59.3% have been working in the current health club for 0-3 years.

2. General Information of the Health Club Classified by Size

2.1 Space

The small size club accommodates 1 – 500 sq.m., the medium size accommodates 500 – 1,000 sq.m., and the large size club accommodates 1,000 – 3,000 sq.m.

2.2 Segmentations

The small size health club divides the club in respective areas from exercise area, reception area, locker room, sauna, swimming pool, steam room, group exercise quarter, and leisure corners for members.

The medium size health club divides the club in respective areas from exercise area, reception area, locker room, sauna, swimming pool, group exercise quarter, steam room, leisure corners for members, office, massage and spa, and snack and beverage corner.

The large size health club divides the club in respective areas from exercise area, locker room, reception area, steam room, group exercise quarter, sauna, leisure corners for members, snack and beverage corner, office, and swimming pool.

2.3 Positions of Personnel in the Health Club

The small size health club respectively positions the personnel as follows: instructor, manger, supervisor, PR, and housekeepers

The medium size health club respectively positions the personnel as follows: instructor, manger, supervisor, PR, housekeepers, and assistant manager.

The large size health club respectively positions the personnel as follows: instructor, PR, manger, supervisor, housekeepers, and assistant manager.

2.4 Activities to Serve Members

The small size health club respectively provides activities for members as follows: aerobic, private exercise programs, yoga and weight controls.

The medium size health club respectively provides activities for members as follows: aerobic, private exercise programs, yoga, weight controls and swimming training.

The large size health club respectively provides activities for members as follows: aerobic, private exercise programs, yoga, weight controls and physical fitness test.

2.5 Cardiovascular Equipment

The small size health club respectively provides treadmill, upright bikes, rower, elliptical, recumbent bike and steppers.

The medium size health club respectively provides treadmill, upright bikes, elliptical, recumbent bike and rower,

The large size health club respectively provides treadmill, upright bikes, rower, recumbent bike, elliptical, and steppers.

2.6 Single Station Equipment

The small size health club respectively provides Leg Extension, Chest Press, Lat Pulldown, Shoulder Press, Abdominal, Prone Leg Curl, Leg Press, Pectoral Fly, Incline Press, Pullover, Back Extension

The medium size health club respectively provides Leg Extension, Chest Press, Shoulder Press, Lat Pulldown, Leg Press, Pectoral Fly, Prone Leg Curl, Abdominal, Back Extension, Incline Press, Hip Extension, Cable Crossover, Multi Hip, Chin-Dip, Adduction, Pullover

The large size health club respectively provides Leg Extension, Chest Press, Shoulder Press, Abdominal, Lat Pulldown, Leg Press, Pectoral Fly, Hip Adduction, Back Extension, Incline Press, Prone Leg Curl, Chin-Dip, Pullover, Cable Crossover, Lateral Raise, Multi Hip, Hip Extension, Rotary Torso, Low Row

2.7 Free Weight Equipment

The small size health club respectively provides Dumbbell, Flat Bench, Barbell, Incline Bench, Adjustable Abdominal Board, Adjustable Bench, and Smith Machine

The medium size health club respectively provides Dumbbell, Flat Bench, Barbell, Smith Machine, Adjustable Bench, Decline Bench, Incline Bench, Adjustable Abdominal Board, and Olympic Flat Bench

The large size health club respectively provides Flat Bench, Dumbbell, Incline Bench, Decline Bench, Barbell, Adjustable Bench, Smith Machine, Adjustable Abdominal Board, Olympic Flat Bench, Olympic Incline Bench, and Olympic Decline Bench

2.8 Income

The small size health club respectively gains from membership fees, and massage.

The medium size health club respectively gains from membership fees, snack and beverage, and massage.

The large size health club respectively gains from membership fees, and snack and beverage.

2.9 Expenses

The small size health club respectively spends on salary, electricity, telephone, water supplies, newspapers, laundry, staff welfare, and office materials.

The medium size health club respectively spends on salary, telephone, electricity, newspapers, laundry, water supplies, equipment maintenance, aerobic compensations, staff welfare, office materials, club maintenance, PR, cost of snacks and beverage, waste costs.

The large size health club respectively spends on salary, electricity, water supplies, telephone, equipment maintenance, newspapers, laundry, PR, club maintenance, and office materials.

3. Opinions of Health Club Management

3.1 Personnel

Findings of personnel management among all 3-size health clubs are as follows

Most small size health clubs strongly manage the personnel. Examining in each item, it is found that the manager is strongly well equipped with knowledge of health club management. The second is instructors should extensively organize physical exercise program for members.

Most medium size health clubs strongly manage the personnel. Examining in each item, it is mostly found that the instructors should extensively organize physical exercise program for members. The second is instructors should

have been trained on physical exercise. The club should appoint managers, and instructors.

Most large size health clubs strongly manage the personnel. Examining in each item, it is mostly found that the instructors should extensively organize physical exercise program for members. The second is the manager should have work experience of health club management. The instructors should have been trained on physical exercise. The instructors and managers should be well equipped with the knowledge of the health club management. Most club managers should have been trained on sport management

3.2 Place and Space

Findings of the space management among all 3-size health clubs are as follows

Most small size health clubs strongly manage the space. Examining in each item, it is mostly found that the club should add more lights and the second is furnishing the club with toilets, locker rooms, swimming pool to serve members.

Most medium size health clubs strongly manage the space. Examining in each item, it is mostly found that the club should furnish locker room, and bathroom. The second is toilet and better segmenting the spaces.

Most large size health clubs strongly manage the space. Examining in each item, it is mostly found that the club should add more lights and the second is furnishing the club with toilets, and lockers .

3.3 Equipment and Facilities

Findings of the equipment and facility management among all 3-size health clubs are as follows

Most small size health clubs strongly manage the equipment and facility. Examining in each item, it is mostly found that the club should provide cardiovascular equipment and the second is drinking water machine.

Most medium size health clubs strongly manage the equipment and facility. Examining in each item, it is mostly found that the club should provide

cardiovascular equipment, prevailed air-conditioning. the second is drinking water machine, handkerchiefs and towels, free weight equipment, and lockers.

Most large size health clubs strongly manage the equipment and facility. Examining in each item, it is mostly found that the club should provide water-drinking machine. The second is cardiovascular equipment, towels, lockers, handkerchiefs, and prevailing air-conditioning.

3.4 Activities

Findings of the activity management among all 3-size health clubs are as follows

Most small size health clubs strongly manage the activity. Examining in each item, it is mostly found that the club should organize private physical exercise programs, and the second is providing aerobics and yoga for members.

Most medium size health clubs strongly manage the activity. Examining in each item, it is mostly found that the club should organize aerobic, and the second is providing private physical exercise programs, yoga, and weight controls for members.

Most large size health clubs strongly manage the activity. Examining in each item, it is mostly found that the club should organize aerobic, and the second is providing physical fitness test, weight controls and private physical exercise programs for members.

3.5 Finances

Findings of the finance management among all 3-size health clubs are as follows

Most small size health clubs moderately manage the finance. Examining in each item, it is found the moderate management except the most emphasis is issuance of receipt on every payment, and the second is lumpsum pay for membership for once, and daily update of accounting

Most medium size health clubs moderately manage the finance. Examining in each item, it is found the moderate management except the most

emphasis is issuance of receipt on every payment, and the second is daily update of accounting , and lumpsum pay for membership for once till expiry date of membership.

Most large size health clubs moderately manage the finance. Examining in each item, it is found the moderate management except the most emphasis is issuance of receipt on every payment, and the second is daily update of accounting , and lumpsum pay for membership for once till expiry date of membership.

Recommendations

It is recommended that

1. Massage and spa should be served free for members. However, it should be offered as privilege of members by classifying the members who prefer to use and charge them higher price in membership fees than other types of membership.
2. Dynamic activities should be organized consistently to publicize the club and to increase member, e.g. rapport sports organized with different workplaces or among health clubs and new promotions.
3. The physical fitness test should be organized for new members who begin to exercise and it should frequently be organized to timely compare exercise results of members.
4. It is unnecessary to allocate many positions in the club. The club can assign jobs to cover position of personnel free e.g. instructors not only advise physical exercises but also organize the physical exercise program and lead the aerobic. Also, on the contrary, the instructors or the PR can even engage in marketing for interested persons to apply for membership.

Recommendations for Further Studies

1. Researches should be conducted on motivation to apply for membership of the private health club.

2. Comparative studies should be conducted on patterns of management between private and government health clubs.

3. Researches should be conducted on marketing of the private health clubs in raising income.

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มหาวิทยาลัยเกษตรศาสตร์.

APPENDIX A

Cardiovascular Equipment



Figure 1
Treadmill



Figure 2
Upright Bike



Figure 3
Recumbent Bike



Figure 4
Rower Machine



Figure 5
Stepper / Stair Climber



Figure 6
Arm Ergometers



Figure 7
Elliptical / Cross-trainer

APPENDIX B

Single Machine

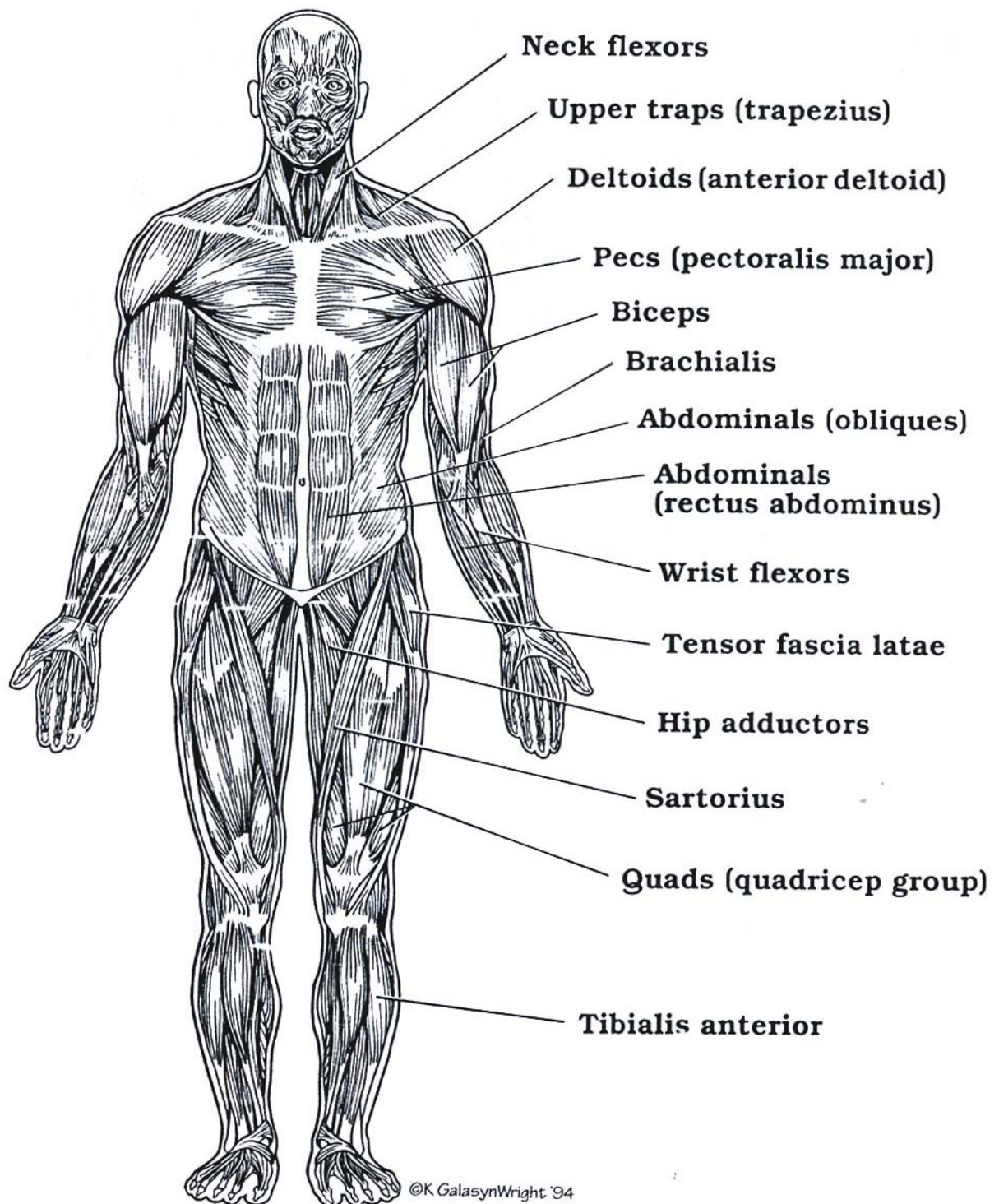


Figure 8 Anterior Muscular

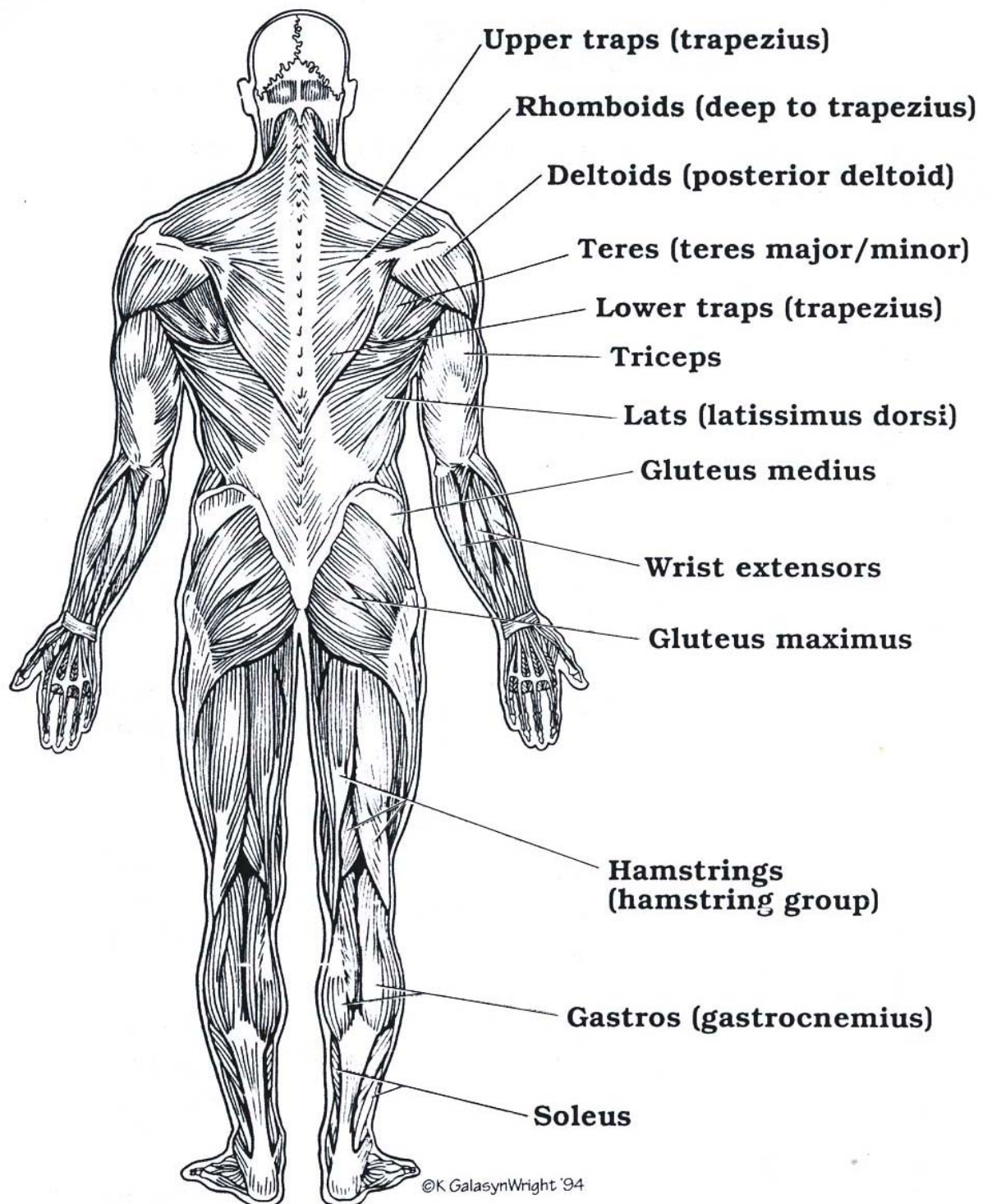


Figure 9 Posterior Muscular

1) Upper Body Exercises Equipment



Figure 10 Vertical Chest / Chest Press



Figure 11 Incline Press



Figure 12 Lateral Raise



Figure 13 Overhead Press /
Shoulder Press



Figure 14 Pectoral Fly



Figure 15 Four-Way Neck



Figure 16 Preacher Curl / Biceps Curl /
Arm Curl



Figure 17 Pullover



Figure 18 Triceps Extension



Figure 19 Triceps Press / Seated Dip



Figure 20 Gravitron / Assist. Chin-Dip



Figure 21 Low Row



Figure 22 Cable Crossover

2) Lower Body Exercises Equipment



Figure 23 Leg Extension



Figure 24 Seated Leg Curl



Figure 25 Prone Leg Curl



Figure 26 Leg Press



Figure 27 Hip Extension



Figure 28 Hip Abduction



Figure 29 Hip Adduction



Figure 30 Standing Calf



Figure 31 Multi Hip

3) Torso Body Exercises Equipoment



Figure 32 Compound Row



Figure 33 Lat Pulldown



Figure 34 Rotary Torso



Figure 35 Abdominal /
Abdominal Crunch



Figure 36 Back Extension /
Lower Back

APPENDIX C

Multi-Station Machine



Figure 37 Two-Station



Figure 38 Four-Station

APPENDIX D

Free Weight Equipment



Figure 39 Dumbbell



Figure 40 Barbell



Figure 41 Flat Bench



Figure 42 Incline Bench



Figure 43 Decline Bench



Figure 44 Olympic Flat Bench



Figure 45 Olympic Incline Bench



Figure 46 Olympic Decline Bench

APPENDIX E

Namelist of Experts, IOC, and Questionnaire

NAMelist OF EXPERTS

1. Assoc. Prof. Dr. Wichit Kanuengsukkasem
Sport Science School
Chulalongkorn University
2. Assoc. Prof. Dr. Praphat Laksanaphisutr
Sport Science School
Chulalongkorn University
3. Asst. Prof. Thavorn Kamutssri
School of Sport Science and Technology
Mahidol University
4. Dr. Jutha Tingspat
Director of Sports Center
Chulalongkorn University
5. Mr. Chai Nimakorn
Managing Director
Grand Marketing Co., Ltd.

IOC (Indicator of Consistency)

To test IOC the following formula is applied

$$\text{IOC} = \frac{\sum R}{N}$$

Whereas

IOC = indicator of consistency between contents / objectives

R = score judged on question by experts

+1 = it is certain that questions are consistent with measure contents / objectives

0 = it is uncertain that questions are consistent with measure contents / objectives

-1 = it is certain that questions inconsistent with measure contents / objectives

N = numbers of experts

Criterion

If $\text{IOC} > 0.50$ = the statement is consistent with contents / objectives

If $\text{IOC} < 0.50$ = the statement is inconsistent with contents / objectives

Table 19 IOC (Indicators of Consistency) by 5 Experts**Part 1: Opinions of Personnel of Health Club**

No	Descriptions	Scores from 5 Experts					IOC Values
		1	2	3	4	5	
1	Employing manager	1	1	1	1	1	1
2	The manager should be well equipped with prior work experience of the health club.	1	1	0	1	0	0.6
3	The manager should be well equipped with different health club management	1	1	0	1	1	0.8
4	The manager should be graduated from administration / sport management	1	1	0	1	1	0.8
5	The manager should have been trained on administration/sport management	1	1	0	1	1	0.8
6	Employing assistant manager	1	1	0	1	1	0.8
7	Employing supervisors	1	1	0	1	1	0.8
8	Employing instructors	1	1	0	1	1	0.8
9	Instructors should be able to organize training program for members	1	1	0	1	1	0.8
10	Instructors should have been trained on physical exercises	1	1	0	1	1	0.8
11	Instructors should be able to lead aerobic	1	1	0	1	1	0.8
12	Employing PR staff	1	1	0	1	1	0.8
13	Employing marketing staff	1	1	0	1	1	0.8
14	Employing different aerobic leaders	1	1	0	1	1	0.8
15	Aerobic leaders should be Part Time staff	1	1	0	1	1	0.8
16	Employing physician	1	1	0	1	1	0.8
17	Employing sports scientists	1	1	0	1	1	0.8
18	Employing housekeepers	1	1	0	1	1	0.8
19	Employing security guards	1	1	0	1	1	0.8

Table 19 IOC (Indicators of Consistency) by 5 Experts (Continued)**Part 2 Opinions of Place and Space of Health Club**

No	Descriptions	Scores from 5 Experts					IOC Values
		1	2	3	4	5	
1	Located in community	1	1	0	1	1	0.8
2	Adequate lights	1	1	0	1	0	0.6
3	Well segmentation of the space	1	1	0	1	0	0.6
4	Furnished with reception/ PR counter	1	1	0	1	1	0.8
5	Furnished with physical fitness test room	1	1	0	1	1	0.8
6	Furnished with first-aids room	1	1	0	1	1	0.8
7	Furnished with cardiovascular equipment	1	1	0	1	1	0.8
8	Furnished with free weight space	1	1	0	1	1	0.8
9	Furnished with Aerobic Room	1	1	0	1	1	0.8
10	Furnished with Indoor Cycling Room	1	1	0	1	1	0.8
11	Furnished with Steam Room	1	0	1	1	0	0.6
12	Furnished with Sauna Room	1	1	0	1	1	0.8
13	Furnished with Locker Room	1	1	0	1	0	0.6
14	Furnished with dressing room	1	1	0	1	0	0.6
15	Furnished with bathrooms	1	1	0	1	0	0.6
16	Furnished with toilets	1	1	0	1	1	0.8
17	Furnished with leisure corner for member	1	1	0	1	1	0.8
18	Furnished with snacks and beverage corner for members	1	1	0	1	1	0.8
19	Furnished with children attendant quarter	1	1	0	1	1	0.8
20	Furnished with office for staff	1	1	0	1	1	0.8
21	Furnished with audio visual aids for members	1	1	0	1	1	0.8
22	Furnished with souvenir corner, e.g. shirt, pants	1	1	0	1	1	0.8
23	Furnished with massage room	1	1	0	1	1	0.8
24	Furnished with spa service	1	1	0	1	1	0.8
25	Furnished with swimming pool for members	1	1	0	1	1	0.8

Table 19 IOC (Indicators of Consistency) by 5 Experts (Continued)**Part 3 Opinion of Equipment and Facilities**

No	Descriptions	Scores from 5 Experts					IOC Values
		1	2	3	4	5	
1	Furnished with Cardiovascular Equipment as follows						
	1.1 Treadmill	1	1	0	1	0	0.6
	1.2 Upright Bike	1	1	0	1	0	0.6
	1.3 Recumbent Bike	1	1	0	1	1	0.8
	1.4 Upper Rower	1	1	0	1	1	0.8
	1.5 Stepper/Stair Climber	1	1	0	1	1	0.8
	1.6 Rower	1	1	0	1	1	0.8
	1.7 Elliptical	1	1	0	1	1	0.8
2	Furnished with Multi-Station	1	1	0	1	1	0.8
3	Furnished with Single station	1	1	0	1	1	0.8
4	Furnished with Multi-Station and Single	1	0	1	1	0	0.6
5	Furnished with Free Weight	1	1	0	1	1	0.8
6	Furnished with the physical fitness test equipment	1	1	0	1	0	0.6
7	Furnished with handkerchiefs	1	1	0	1	0	0.6
8	Furnished with towels	1	1	0	1	0	0.6
9	Furnished with bathing amenities, e.g. shampoo, hair cream, soap	1	1	0	1	1	0.8
10	Furnished with dressing amenities e.g. combs, powder, hair dryers, cotton-bud....	1	1	0	1	1	0.8
11	Furnished with telephone booths	1	1	0	1	1	0.8
12	Furnished with lockers	1	1	0	1	1	0.8
13	Furnished with lockers by 1:4 or 25 lockers for 100 members	1	1	0	1	1	0.8
14	Furnished with drinking water machine	1	1	0	1	1	0.8
15	Furnished with lockers internal telephone lines in different positions	1	1	0	1	1	0.8
16	Furnished with prevailed air-conditioning	1	1	0	1	0	0.6
17	Furnished with lockers sport equipment for members	1	1	0	0	1	0.6

Table 19 IOC (Indicators of Consistency) by 5 Experts (Continued)**Part 4: Opinions of Activities**

No	Descriptions	Scores from 5 Experts					IOC Values
		1	2	3	4	5	
1	Organize private program	1	1	0	1	0	0.6
2	Organize weight control program	1	1	0	1	0	0.6
3	Physical fitness test program	1	1	0	1	0	0.6
4	Different aerobics, e.g. body-jam, step aerobic, high compact, low compact, etc	1	1	0	1	1	0.8
5	Aerobic biking	1	1	0	1	1	0.8
6	Yoga	1	1	0	1	1	0.8
7	Ballroom dance	1	1	0	1	1	0.8
9	Swimming	1	1	0	1	1	0.8
10	Exercise training	1	1	0	1	1	0.8
13	Team competition	1	0	1	1	0	0.6
14	Identical exercise competition e.g. cumulative Distance, rower, etc.	1	1	0	1	1	0.8

Table 19 IOC (Indicators of Consistency) by 5 Experts (Continued)**Part 5 Opinions of Finances**

No	Descriptions	Scores from 5 Experts					IOC Values
		1	2	3	4	5	
1	Sport training to raise income	1	1	0	1	0	0.6
2	Sport competition to raise income from applications	1	1	0	1	0	0.6
3	Charges for personal training	1	1	0	1	0	0.6
4	Sponsor charge in publication of health club	1	1	0	1	0	0.6
5	Sponsor charge in banners inside the club	1	1	0	1	1	0.8
6	Hiring fees of equipment	1	1	0	1	1	0.8
7	Souvenir sold	1	1	0	1	1	0.8
8	Lumpsum pay for membership till date of expiry	1	1	0	1	1	0.8
9	Matriculation fees and monthly service fees	1	0	1	1	0	0.6
10	Daily update accounting	1	0	1	1	0	0.6
11	Receipt for every payment	1	1	0	1	1	0.8

QUESTIONNAIRE

**TITLE: A STUDY OF PRIVATE HEALTH CLUBMANAGEMENT IN
BANGKOK METROPOLITAN**

INSTRUCTIONS

This is an opinion survey of health club management in Bangkok
responded by following positions

1. Manager
2. Assistant Manager
3. Supervisor / Senior Instructor

The response will **not cause any affects** to respondents and the health
clubs but advantages for to the study to be as guides in managing the health club.
Kindly precisely respond.

Recommendation in Responding

1. This questionnaire contains 3 parts
 - Part 1 General Information of Respondents
 - Part 2 General Details of Health Club
 - Part 3 Opinion of Health Club Management
2. There are **12** pages and kindly complete all for the validity of survey
3. Kindly check whether you have completed all pages before return the
questionnaire.

Forward here my gratitude for your cooperation

Supinya Boonnum
Graduate Student
Program of Sports Management
Mahidol University

QUESTIONNAIRE

INSTRUCTIONS: Kindly mark✓ in () by fact.

Part 1 General Information of Respondents

1. Gender ☐ Male ☐ Female
2. Age ☐ Less than 25 years ☐ 26-30 years
☐ 31-35 years ☐ 36-40 years
☐ 41-50 years ☐ More than 50 years
3. Position ☐ Manager)
☐ Assistant Manager
☐ (Supervisor / Senior Instructor)
☐ Others (specify).....
4. Monthly Income ☐ Less than 10,000 Baht ☐ 10,000 - 15,000 Baht
☐ 15,000 - 20,000 Baht ☐ 20,000 - 30,000 Baht
☐ 30,000 - 40,000 Baht ☐ More than 40,000
5. Education ☐ Less than pre-bachelor degree ☐ Pre-bachelor-bachelor degree
☐ Mater degree or equivalent ☐ Doctoral degree or equivalent
6. Field of education ☐ Physical sciences ☐ Hygienic
☐ Sport sciences ☐ Administration/management
☐ Adm./sport management ☐ Marketing
☐ Other(specify).....
7. Years of experience in this health clubyears
8. Have you work experience form other health club before working hereyears
9. From Q8, do you involve in health club?
☐ Yes ☐ No (specify).....
10. From Q 9, what is your position?
☐ Manager
☐ Assistant Manager
☐ Supervisor / Senior Instructor)
☐ Instructor
☐ Others (specify position).....

Part 2 General Details of Health Club

11. Number of members in the health club

- ☐ 1 - 200 members (small size)
- ☐ 201 - 500 members (medium size)
- ☐ 500 members and above (large size)

12. Entire spaces for health club

- | | |
|---|---|
| <input type="checkbox"/> 1 - 500 sq.m. | <input type="checkbox"/> 500 - 1,000 sq.m. |
| <input type="checkbox"/> 1,000 - 3,000 sq.m. | <input type="checkbox"/> 3,000 - 5,000 sq.m. |
| <input type="checkbox"/> 5,000 - 10,000 sq.m. | <input type="checkbox"/> More than 10,000 sq.m. |

13. Space Dividing in the Health Club (answerable of more than 1 item)

- ☐ Reception counter
- ☐ Exercise room
- ☐ Group exercise room
- ☐ Aerobic bicycle room
- ☐ Warm-up room
- ☐ Physical potential test room
- ☐ Locker room
- ☐ Steamed room
- ☐ Sauna room
- ☐ Swimming pool
- ☐ Snack and beverage quarter
- ☐ Leisure room for members
- ☐ Child attendant room
- ☐ Massage and spa quarters
- ☐ Office
- ☐ Other

14. Personnel Position of the Health Club(answerable of more than 1 item)

- ☐ Managers
- ☐ Assistant Managers
- ☐ Supervisors / Senior
- ☐ Instructors
- ☐ Personal Trainers
- ☐ Exercise Leaders
- ☐ Receptions
- ☐ Marketing Officers
- ☐ Doctors/Nurses

- ☐ Sports Scientists
- ☐ Physical Therapist
- ☐ Housekeepers
- ☐ Others

15. Activities provided by health club for members (answerable of more than 1 item)

- ☐ Aerobic
- ☐ Indoor Cycling
- ☐ Physical Fitness Test
- ☐ Private exercise
- ☐ Weight control
- ☐ Yoga
- ☐ Swimming instruction
- ☐ Exercise training for members
- ☐ Others

16. Cardiovascular Equipment Provided in the Health (answerable of more than 1 item)

- ☐ Treadmills
- ☐ Upright Bikes
- ☐ Recumbent Bikes
- ☐ Upper Rower
- ☐ Stepper/Stair Climber
- ☐ Rower
- ☐ Elliptical/Cross Trainer
- ☐ Indoor Cycling
- ☐ others

17. Multi-Station Provided in the Health Club (answerable of more than 1 item)

- ☐ Two-station
- ☐ Four-station
- ☐ Six- station
- ☐ Others

18. Single Station Provided in the Health Club (answerable of more than 1 item)

Leg

- ☐ Leg Extension
- ☐ Prone Leg Curl
- ☐ Seated Leg Curl
- ☐ Leg Press
- ☐ Hip Extension
- ☐ Hip Adduction

- ☐ Hip Abduction
- ☐ Multi Hip
- ☐ Others
- ☐ Chest, Torso and Arms
- ☐ Chest Press

Incline Press

- ☐ Shoulder Press/Overhead Press
- ☐ Pectoral Fly/Butter Fly
- ☐ Pullover
- ☐ Lateral Raise
- ☐ Lat Pulldown
- ☐ Mid Row
- ☐ Low Row
- ☐ Compound Row
- ☐ Abdominal Crunch
- ☐ Back Extension/Low Back
- ☐ Rotary Torso
- ☐ Cable Crossover
- ☐ Chin-Dip
- ☐ Others

19. Free Weight Provided in the Health Club (answerable of more than 1 item)

- ☐ Dumbbell
- ☐ Barbell
- ☐ Flat Bench
- ☐ Incline Bench
- ☐ Decline Bench
- ☐ Adjustable Bench
- ☐ Olympic Flat Bench
- ☐ Olympic Incline Bench
- ☐ Olympic Decline Bench
- ☐ Olympic Adjustable Bench
- ☐ Smith Machine
- ☐ Adjustable Abdominal Board
- ☐ Others

20. Income in the Health Club (answerable of more than 1 item)

- ☐ Membership application fees
- ☐ Fees

- ☐ Sport activity application fees
- ☐ Steamed room service
- ☐ Sauna service
- ☐ Massage service
- ☐ Spa service
- ☐ Private exercise instruction
- ☐ Training fees
- ☐ Snacks and beverage sold
- ☐ Souvenir sold
- ☐ Others

21. Expenses in the Health Club (answerable of more than 1 item)

- ☐ Personnel salary
- ☐ Personnel welfare
- ☐ Compensation for aerobic leaders
- ☐ Compensation for instructors
- ☐ Rent
- ☐ Water supplies
- ☐ Electricity
- ☐ Telephone
- ☐ Office materials
- ☐ Equipment maintenance
- ☐ Health club maintenance
- ☐ Laundry
- ☐ newspapers
- ☐ Cost of snacks and beverage
- ☐ Cost of wastage
- ☐ Advertisement and public relations
- ☐ Marketing activities
- ☐ Others

Part 3 Questionnaire of Opinion in the Health Club Management in Bangkok Metropolitan

Headings are:

1. Personnel of the health club
2. Space of the health club
3. Equipment and facility
4. Activities
5. Finance

Instructions: kindly read and discreetly mark ✓ in the appropriate column with following criteria

1. If you **most** agree with the statement, kindly mark ✓ in the Most column
2. If you **much** agree with the statement, kindly mark ✓ in the Much column
3. If you **moderately** agree with the statement, kindly mark ✓ in the Moderate column
4. If you **less** agree with the statement, kindly mark ✓ in the Less column
5. 4. If you **least** agree with the statement, kindly mark ✓ in the Least column

Sample

No	Descriptions	Levels of Opinions				
		Most	Much	Moderate	Less	Least
0	Providing drinking water machine		✓			

Explanation

From the sample, it shows that you have **Much** agreed with providing drinking water machine.

1. The personnel

No	Descriptions	Levels of Opinions				
		Most	Much	Moderate	Less	Least
1	Appoint manager of the health club.					
2	The manager should have prior work experience of health club.					
3	The manager should have managerial skills of health club.					
4	The manager should be graduated in administration/sport management.					
5	The manager should have been trained on administration/ sport management.					
6	Appoint assistant manager position					
7	Appoint supervisors/ senior					
8	Appoint instructors					
9	Instructor should be able plan exercise and training programs for members					
10	Instructors should have been trained on exercises					
11	Instructors should be able to lead aerobic					
12	Appoint receptionists					
13	Appoint marketing personnel					
14	Appoint different aerobic leaders					
15	Aerobic leaders should be hired as Part Time					
16	Appoint physician to the health club					
17	Appoint sport scientists					
18	Hire housekeepers					
19	Hire security guards					

2. The place and space

No	Descriptions	Levels of Opinions				
		Most	Much	Moderate	Less	Least
1	Located in community					
2	Adequate lights					
3	Well segmented space					
4	Furnished with reception/PR counter					
5	Furnished with physical fitness room					
6	Furnished with first-aids room					
7	Furnished with Cardiovascular exercise room					
8	Furnished with weight room					
9	Furnished with Aerobic Room					
10	Furnished with Indoor Cycling Room					
11	Furnished with Steam Room					
12	Furnished with Sauna Room					
13	Furnished with Locker Room					
14	Furnished with dressing room					
15	Furnished with bathrooms					
16	Furnished with toilets					
17	Furnished with leisure room					
18	Furnished with snack and beverage corner for members					
19	Furnished with child attendants					
20	Furnished with office					
21	Furnished with audio-visual room					
22	Furnished with souvenir corner e.g. shirt, pants etc.					
23	Furnished with massage room					
24	Furnished with spa- room					
25	Furnished with swimming pool					

3. The equipment and facilities

No	Descriptions	Levels of Opinions				
		Most	Much	Moderate	Less	Least
1	Cardiovascular					
	1.1 Treadmill					
	1.2 Upright Bike					
	1.3 Recumbent Bike					
	1.4 Upper Rower					
	1.5 Stepper/Stair Climber					
	1.6 Rower					
	1.7 Elliptical					
2	Multi-Station					
3	Single station					
4	Furnished with equipment for Multi-Station and Single station					
5	Furnished with equipment for Free Weight)					
6	Furnished with equipment for physical fitness test					
7	Prepare handkerchief for members					
8	Prepare towels for members					
9	Bathing amenities, shampoo, cream, soap					
10	Dressing amenities, e.g. comb, powder, hair-dryer, cotton bud					
11	Service phone					
12	Service lockers					
13	1:4 lockers provided					
14	Drinking water service					
15	Install many phone point service					
16	Adequate air-conditioning					
17	Furnished with adequate equipment					

4. The activities

No	Descriptions	Levels of Opinions				
		Most	Much	Moderate	Less	Least
1	Organize private program					
2	Organize weight control program					
3	Physical fitness test program					
4	Different aerobics, e.g. body-jam, step aerobic, high compact, low compact, etc					
5	Aerobic biking					
6	Yoga					
7	Ballroom dance					
8	Swimming					
9	Exercise training					
10	Team competition					
11	Identical exercise competition e.g. cumulative Distance, rower, etc.					

5. The finances

No	Descriptions	Levels of Opinions				
		Most	Much	Moderate	Less	Least
1	Sport training to raise income					
2	Sport competition to raise income from applications					
3	Charges for private training					
4	Sponsor charge in publication of health club					
5	Sponsor charge in banners inside the club					
6	Hiring fees of equipment					
7	Souvenir sold					
8	Lumpsum pay for membership till date of expiry					
9	Matriculation fees and monthly service fees					
10	Daily update accounting					
11	Receipt for every payment					

BIOGRAPHY

NAME	Miss Supinya Boonnum
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